SEPTEMBER 2020
BxWP2020-14

BORDEAUX ECONOMICS WORKING PAPERS
CAHIERS D'ECONOMIE DE BORDEAUX

Traditional Norms, Access to Divorce and Women's Empowerment: Evidence from Indonesia

Olivier Bargain
Bordeaux University and the Institut Universitaire de France (IUF)
olivier.bargain@u-bordeaux.fr

Jordan Loper
Aix-Marseille Univ., CNRS, EHESS, Centrale Marseille, IRD, AMSE, Marseille

Roberta Ziparo
Aix-Marseille Univ., CNRS, EHESS, Centrale Marseille, IRD, AMSE, Marseille

GREThA UMR CNRS 5113
Université de Bordeaux
Avenue Léon Duguit
33608 Pessac – France
Tel : +33 (0)5.56.84.25.75
http://gretha.u-bordeaux.fr/

LAREFI
Université de Bordeaux
Avenue Léon Duguit
33608 Pessac – France
Tel : +33 (0)5.56.84.25.37
http://larefi.u-bordeaux.fr/

Abstract

Social norms can interact with formal institutions in shaping women's autonomy. We examine this question in the context of legal reforms and their differentiated impact on divorce and empowerment across traditional modes of post-marital cohabitation. Global evidence first shows that the degree of ancestral matrilocality (i.e. the practice of living with the bride's relatives after marriage) correlates with contemporaneous opinions about gender role. This is especially the case in countries with low divorce rates such as Indonesia. We then exploit a policy experiment for this country, which exogenously fosters women's access to justice and ability to divorce. We theoretically establish how women originating from matrilocal ethnic groups should respond to the reform compared to those from patrilocal ethnicities. We confirm the model predictions using a panel difference-in-difference approach: the former divorce more and, when in stable marriages, experience a significant improvement in well-being and empowerment. This result is consistently obtained for a broad range of outcomes including women's health, fertility control, asset value, women's and children's well-being as well as women's final say over key decisions. Modern legal reforms compound with ancestral norms and exacerbate potential inequalities between women of different ethnic origins. This conclusion calls for better tailored policies that can transcend cultural contexts and overcome the adherence to informal laws.

Keywords: Legal Reforms, Divorce, Ethnic Norms, Intra-Household Decision-Making.

JEL: D13; I15; I38; J16; K36; Z13

ACKNOWLEDGEMENTS: *We are grateful to Sylvain Chabé-Ferret, Eric Chaney, Lucia Corno, David de la Croix, Timothée Demont, Bernard Fortin, Elise Huillery, Daniel LaFave, Nicola Limodio, Costas Meghir, Marc Sangnier, Robert Sauer, Tanguy van Ypersele for helpful comments and suggestions. This work was supported by the French National Research Agency Grant ANR-17-EURE-0020. The usual disclaimers apply.*

To cite this paper: BARGAIN Olivier, LOPER Jordan, ZIPARO Roberta (2020), *Traditional Norms, Access to Divorce and Women's Empowerment: Evidence from Indonesia*, Bordeaux Economics Working Papers, BxWP2020-14 **https://ideas.repec.org/p/grt/bdxewp/2020-14.html**

1 Introduction

It is well established that the legal and institutional framework of a country can greatly contribute to women's autonomy (Duflo, 2012). In particular, changes in divorce laws and legal rights can improve women's empowerment within marriage (Voena, 2015). However, cultural norms can mitigate policy effects, especially in the context of developing countries characterized by great ethnic diversity. Admittedly, traditional norms per se have garnered considerable attention in both anthropological and economic studies, notably their association with gender-related development outcomes.[1] Yet, less is known about the way ancestral social norms interact with formal institutions.

With this question in mind, some authors have examined the impact of large-scale development policies depending on different cultural contexts stemming from ethnical diversity (Ashraf et al., 2020; La Ferrara and Milazzo, 2017).[2] The present paper contributes to this nascent literature by offering evidence on the role of matrilocality – the practice of living with or near the bride's parents after marriage – regarding the effectiveness of pro-women laws. We start with a simple motivation: ancestral norms of post-marriage residence are still relevant today. Using global variation, we find a strong association between the degree of ancestral matrilocality and contemporaneous opinions about women's autonomy. This is especially the case for countries with a low access to divorce such as Indonesia. We then move to the context of this country.[3] Comprising more than 300 different ethnic groups, it exhibits a wide heterogeneity in terms of kinship norms, with large pockets of matrilocal communities (Rammohan and Robertson, 2012). Ethnic-based customs, the so-called *Adat* system, still guide family life and often prevail over religious and legal laws (Buttenheim and Nobles, 2009). In particular, contemporaneous attitudes towards divorce and gender rights are strongly associated with traditional post-marriage arrangements as prescribed by the local *Adat*.

To research what cultural norms imply for policy effectiveness in a context of pro-women legis-

[1] Jayachandran (2015) describes how various cultural practices – such as patrilocality, patrilinearity or the payment of bride price or dowry – may affect women's outcomes. Several studies examine in particular the effect of bride price on early marriages (Corno et al., 2016) and women's well-being (Lowes et al. (2017) or the effect of matrilinearity on household cooperation and children's outcomes (La Ferrara, 2007; Lowes, 2018). Recent studies explore the origins of cultural norms using ethnic diversity (Alesina and Ferrara, 2005) – in particular how socioeconomic conditions and agricultural practices may have shaped gender roles (Alesina et al., 2013; Doepke and Tertilt, 2009; Alesina et al., 2016) and norms such as matrilinearity (BenYishay et al., 2017).

[2] Extending Duflo (2001), Ashraf et al. (2020) find that Indonesian ethnic groups that traditionally engage in bride price payments at marriage increase female enrollment in response to a large school construction program. La Ferrara and Milazzo (2017) study the introduction of quotas for the land that parents should devolve on their children in Ghana and find a negative impact of the reform on educational outcome of boys originating from matrilineal ethnic group. Hence, the effectiveness of development policy may strongly vary with traditional rules or even crowd the practices of the norm in some cases (Bau, 2016).

[3] Despite recent improvements in women's legal rights, Indonesia was ranked 110$^{\text{th}}$ by the United Nations (Gender Inequality Index of 0.494) and 92$^{\text{nd}}$ by the World Economic Forum (Global Gender Gap Index of 0.681) in 2015.

lation, we exploit a series of country-wide reforms that have fostered women's access to justice and their ability to divorce in 2008-2010. A simple household model with limited commitment and changes in outside options predicts that women of matrilocal tradition are more likely to divorce and, when the marriage lasts, benefit from renegotiation. The natural experiment allows us to test these predictions using difference-in-difference estimations with fixed effects on the Indonesia Family Life Survey (IFLS). We confirm that Indonesian women originating from matrilocal ethnic groups are more responsive to the reform than those from patrilocal ancestry. They tend to divorce more and, if remaining with their partner, experience a significant improvement in their bargaining position and welfare, as shown through a broad array of outcomes including health status, control over their own fertility, asset accumulation, own and child well-being as well as final say over key life decisions.

This paper contributes to several strands of the literature. *First*, we bring new evidence on the role of access-to-justice legal reforms, and divorce-related laws, on marital breakdown, households' intertemporal behavior and women's empowerment. Most of this literature examines how unilateral divorce, in Western countries, makes the threat of divorce credible and hence possibly affects intra-household allocation during marriage. This type of mechanism is rarely studied in the context of poorer countries, especially in muslim settings where divorce is not common.[4] We show that in the Indonesian case, a change in legal rights in favor of women can be perceived as sufficiently effective – at least among ethnicities of matrilocal tradition – to affect the probability of divorce and the degree of women's empowerment. *Second*, the reform examined in this paper is different from, and complementary to, the policies studied in related contributions including educational programs in Ashraf et al. (2020) and wealth transmission control in La Ferrara and Milazzo (2017). Legal laws are also important for they can be very effective in changing people's living arrangements. We show that they can pervade the private sphere and influence intra-household mechanisms in some segments of the population. *Third*, this paper is one of the few that test how the efficacy of pro-women policies can vary with customs. We use explicit measures of traditional norms about post-marriage residence to assess the contribution of culture to the effectiveness of legal reforms. It turns out that legal reforms cannot target the most disadvantaged women if policies are not better tailored to transcend cultural contexts and overcome the adherence to informal laws.

2 Background on Social Norms and Legal Reforms

We provide some background on traditional residence norms and their correlation with women's empowerment using global evidence and a focus on Indonesia. The section ends with a descrip-

[4]Some evidence exists for middle income countries. Sun and Zhao (2016) document how China's pro-women divorce reform has empowered women within marriage and reduced health-damaging sex-selective abortion.

tion of the reforms under study.

2.1 Traditional Norms and Female Empowerment: Global Evidence

Post-marital residence norms have long been emphasized by anthropologists and sociologists as a social structure shaping household organisation. As such, different ethnic groups engage in different practices, which have been categorized as follows: matrilocality (married couples live with or near the bride's family), patrilocality (they live with or near the groom's family), ambilocality (they can live with or near either spouse's parents) and neolocality (they can set their own household, i.e. the basis of most developed nations).

Traditional versus Actual Residence Norms and Women's Outcomes. Many anthropological and economic studies attribute lower education, a lower marriage age and low levels of autonomy to women in groups adopting patrilocality.[5] The basic explanation recalled by Sundaram and Vanneman, 2008 pertains to the fact that parents are dissuaded from investing in their daughters' education if they leave the home after marriage. Selective abortion in East/South Asia and South Caucuses is also linked to the fact that daugthers in patrilocal families cannot provide care once the parents are old (Ebenstein, 2014). Patrilocal contexts may also increase husbands' outside options due to the pressure exerted by the presence of their own relatives on the wife. Yet, living with his or her relatives is not the only aspect affecting spouses' relative empowerment. More generally, matrilocality or patrilocality are salient features of a broader ethnic diversity in family customs and gender roles. For this reason, we will focus on the heterogeneity in terms of traditional rather than actual post-marriage residence in our empirical approach. Another reason to choose traditional norms is that actual arrangements may be highly correlated with a particular couple's unobserved heterogeneity and, hence, reflect more than what the norm entails.

Origins of Residence Norms. Several explanations have been given for the emergence of residence norms. Patrilocality might have originated from a greater productive role attributed to sons, from a larger bargaining power given to sons, or from the need to locate multiple women within a husband's household in a polygynous setup (Edlund, 2001). Botticini and Siow, 2003 explain how patrilocal societies transfer wealth via dowries for their daughters and via bequests for their sons in order to maintain the incentives of the latter to exert effort on the family farm. Sons' incentives may also depend on paternity uncertainty, which may be reduced if their parents monitor the sexual behavior of the son's wife, hence explaining how patrilineal inheritance and patrilocal exogamy reinforce each other (Guha, 2010).

[5]This is the case for instance in Dyson and Moore (1983) for northern India, Garg and Morduch (1998) for Ghana and, in the Indonesian context, Buttenheim and Nobles (2009), Rammohan and Johar (2009) and Rammohan and Robertson (2012).

Table 1: Worldwide Correlations between Ancestral Relative Matrilocality and Contemporaneous Attitudes towards Women's Role

	Men have more rights to a job when jobs are scarce	Men make better business executives	Women have the same rights as men	Divorce justifiable	Economic Participation	Health and Survival	Share of firms with female ownership
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Average Effect							
Relative Matrilocality	-0.167*	-0.205**	0.322**	0.457*	0.116***	0.005**	0.140**
	(0.089)	(0.085)	(0.160)	(0.244)	(0.033)	(0.002)	(0.060)
R-squared	0.618	0.636	0.580	0.764	0.496	0.204	0.252
Heterogenous Effect by Countries' Intensity of Divorce							
(Relative Matri.) × 1st Tertile	-0.359***	-0.390***	0.495**	0.604**	0.163***	0.009**	0.179**
	(0.109)	(0.113)	(0.214)	(0.255)	(0.043)	(0.004)	(0.069)
(Relative Matri.) × 2nd Tertile	-0.054	-0.071	0.200	0.423	0.082**	0.004	0.126*
	(0.117)	(0.111)	(0.192)	(0.279)	(0.035)	(0.003)	(0.063)
(Relative Matri.) × 3rd Tertile	-0.025	-0.133	0.254	0.211	0.084**	-0.001	0.048
	(0.126)	(0.148)	(0.423)	(0.531)	(0.035)	(0.003)	(0.070)
R-squared	0.673	0.685	0.592	0.768	0.544	0.259	0.294
Tertile 1 = Tertile 2 (p-value)	0.023	0.024	0.215	0.497	0.030	0.230	0.376
Tertile 2 = Tertile 3 (p-value)	0.045	0.181	0.647	0.450	0.044	0.053	0.060
Observations	73	72	71	73	70	70	51
Mean Dep. Var.	1.891	2.370	8.093	4.762	0.643	0.972	0.347

Country-level linear estimates of contemporary women's outcomes on the relative degree of matrilocality, calculated as the proportion of citizens from ancestral matrilocality minus the proportion from ancestral patrilocality (source: Alesina et al., 2013). Outcomes in columns 1-4 are drawn from the World Value Surveys (WVS) modules on self-report attitudes towards gender roles, asking whether: (1) men have more rights to a job when jobs are scarce (from 1-disagree to 3-agree), (2) men make better business executives (from 1-disagree to 4-agree), (3) gender equality as essential characteristics of democracy (approval on a 1-10 scale), (4) divorce justifiable (approval on a 1-10 scale). Outcomes in column 5-7 are indices ranging from 0 to 1, drawn from the 2016 World Economic Forum (columns 5-6) and the World Bank Enterprise Surveys (column 7). They include: (5) an index based on the participation gap, the remuneration gap and the advancement gap, (6) an index measuring gender difference in sex ratio at birth and in healthy life expectancy, (7) the percentage of firms with some female ownership (country surveys conducted over 2003-2010). All the regressions include country-level controls: log GDP/capita and its square, proportion of pre-industrial plough use, ancestral suitability for agriculture, fraction of ancestral land that was tropical or subtropical, ancestral domestication of large animals, and estimations based on the WVS also include average respondants' characteristics (gender, age, age squared and education). In the lower panel, we provide the same estimates conditional on the intensity of divorce in the country (tertiles of the country proportion of divorced-separated respondants). Indonesia is ranked 8th from the bottom and hence below to the first tertile. Robust standard errors are reported in brackets. Significance levels: * p<0.10, ** p<0.05, *** p<0.01. Equality tests show that in 5/7 cases, the first tertile is significantly different from the rest of the distribution.

Overall, ancestral residence norms carry a lot of information about gender rights and roles within an ethnic group, as the emergence of norms has been closely associated with the values driving inheritance, marriage age or the timing of fertility.

Global Evidence. We also provide further motivation for studying the importance of ancestral residence norms. In the upper panel of Table 1, we use country variation of indices drawn from the World Value Surveys, the World Economic Forum and the World Bank Enterprise Surveys on attitudes towards gender rights and women's outcomes (economic activity, health, female firm ownership). We regress these indices on the country-level relative prevalence of traditional matrilocality and a broad set of controls. We find a systematic relation between pro-women outcomes and the ancestral degree of matrilocality. In the lower panel, we show that these results are mainly driven by countries in the lowest tertile of the divorce rate distribution. In words, ethnic cultural diversity transpires in terms of gender attitudes in more traditional countries such as Indonesia (this country is ranked 8th from the bottom of the divorce intensity distribution).

2.2 Traditional Residence Norms: the Indonesian Context

Against this background, Indonesia is a particularly relevant field of investigation given its extraordinary ethnic diversity and the noticeable variety of social norms that derive from it. Three points should be made.

First, residence norms are not geographically polarized. This can be seen on the map of Figure 1, where we show the location of villages interviewed in the IFLS and the prevailing residence norm of each village. In most of the regions, villages of both patrilocal and matrilocal ancestries are surveyed. This is good news because otherwise, a different exposure to the reform under study could simply be related to spatial heterogeneity (or other aspects related to living in specific areas). We will actually explore this type of confounders more deeply later by additionally controlling in our estimations for the distance to cities where the new legal rights can be exerted.

Second, we have discussed the relevance of traditional norms in general and stress here the role of informal laws (*Adat*) in the Indonesian context. They shape many aspects of family life and are historically associated with ethnic differences in family-related behavior including marriage, inheritance, land-holding and dispute resolution. In particular, divorce and polygyny are relevant cases of tensions between *Adat* customs, religious laws and state laws that have emerged during the colonial period and still persist (Buttenheim and Nobles, 2009). Traditional residence norms, as the salient part of *Adat* rules, will be exploited in our empirical analysis as they potentially filter the effect of legal reforms while reflecting couples' attitude towards divorce. It is possible that women of matrilocal tradition benefit more from the new legal

Figure 1: Village-level Traditional Post-Marital Residence (IFLS data)

support and the increased possibility of divorce.[6]

Finally, we document a similar type of association between ancestral matrilocality and attitudes towards gender roles as we have done using cross-country variation. We rely on the description of traditional norms by village-level *Adat* experts as provided in the 1997 IFLS. Simple estimations reported in Appendix Table B1 show that in case of divorce, villages of matrilocal traditions tend to favor women: the divorce ruling more often takes place in a religious/civil court, the husband has less often the right to claim pre-marriage assets or assets acquired since marriage, young children are less likely to follow the husband or his relatives. Note however that divorce is relatively infrequent so that there is no clear pattern of matrilocal-advantage in marriage during the pre-reform years (2000 and 2007 IFLS), at least concerning the empowerment outcomes used in our double difference approach, as will be seen thereafter (and also found in Levine and Kevane 2003). In fact, a clear advantage for women of matrilocal tradition will appear *after* the reforms.

2.3 National Access-to-Justice Strategy: a Natural Experiment

Indonesia is characterized by an Islamic justice system in which religious courts have exclusive jurisdiction over cases where the parties are Muslim and which involve marriage-related cases (1974 Marriage Law). These cases mostly concern divorce and related matters including property division, child custody or spousal maintenance. Given the prevalence of Islam, around 98% of divorces are pronounced by religious courts (the remaining cases are heard by general courts). A critical aspect is the ability to exercise one's rights. In particular, women's access to

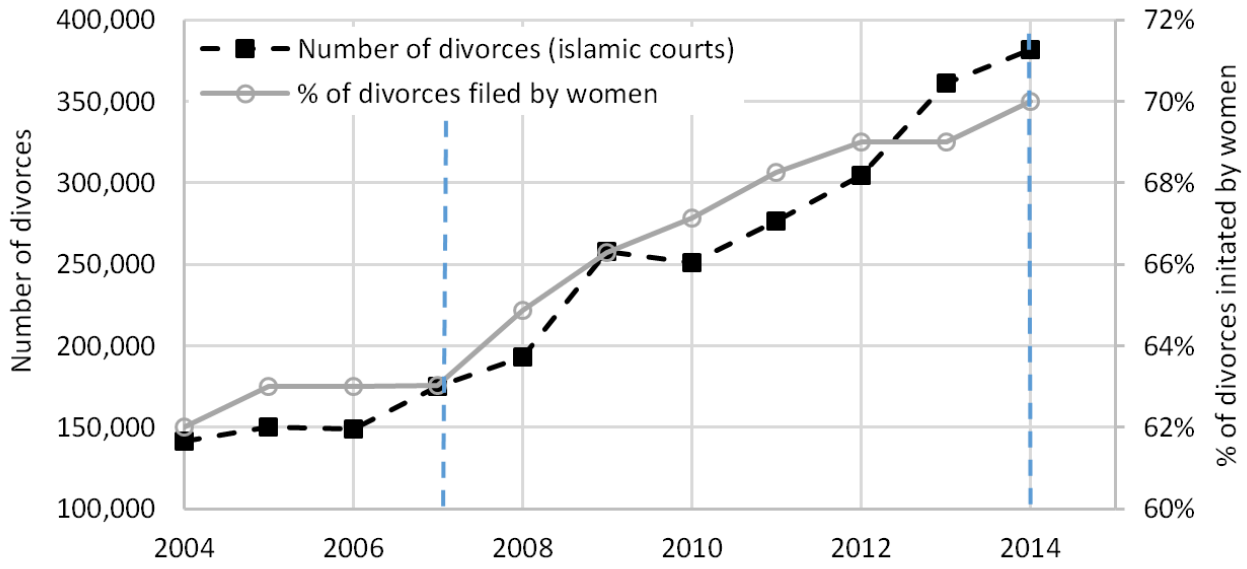
[6] In a study of *Adat* marriage patterns among the Sasak, Grace (2004) contends that interpretations of both Islamic law and state law related to marriage are often shaped by local *Adat*. Consistently, an access-to-justice reform may not be appreciated equally by women of different ethnic traditions.

justice is positively related to gender equity developments (Alfitri, 2011), especially by making them more assertive about their right to divorce. However, these rights may be constrained by a lack of information, by the cost of court cases (half of Indonesia citizens live below $2 a day) or by the social consequences for women who institute divorce proceedings through the formal legal system. These conclusions have been reached by the 'Access and Equity' study supported by the Family Court of Australia, AusAID and other stakeholds.

In this context, and following this study, the Indonesian government has launched the National 'Access to Justice' Strategy during 2008-2010. This program aimed at increasing access to the courts for women and disadvantaged groups (Sumner et al., 2011). It comprises three pillars. First, in 2008 and 2009, the *Justice for the Poor* scheme has been put in place, financially supported by AusAID, the Family Court of Australia and the World Bank. To alleviate the financial constraint of poor households, it has substantially increased religious courts' budgets in order to waive legal fees. It has also increased the capacities of circuit courts, namely courts travelling to subdistricts in order to hold hearings for family law cases in rural and remote areas. Second, the laws 48, 49 and 50 on Judicial Authority and General/Religious Courts were passed in 2009, requiring both types of courts to provide an extensive range of services that could improve women's access to courts (court fee waivers, legal aid services, legal assistance to clients who cannot afford lawyers). Finally, the Presidential regulation n.5 passed in 2010 has provided additional budget for fee-waiver schemes, circuit courts and legal aid services.

The effect of this series of reforms has been documented in several reports, showing a significant increase in the ability of women, the poor or those living in remote areas to access courts and exercise their rights. Sumner et al. (2011) explain that the awareness and public confidence in the legal system has also increased dramatically. The authors show that the access to courts has substantially increased, i.e. the number of people accessing religious courts through fee waiver (resp. circuit courts) has been multiplied by 20 (resp. 6) in 2011 compared to 2007. As illustrated in Figure 2, an increase in divorce is observed around the time of the reform. Maybe more impressive is the rise in divorce cases initiated by the wives, which exceed 70% of all divorces in the recent years. Finally, courting reforms have also helped women in case of domestic violence and to break cycles of illegal marriage, divorce or births. That is, they can legally register births, marriages and divorces, which are important steps to establish their legal identity and to enforce their rights, for instance their entitlement to poverty alleviation or healthcare programs for themselves or their children (Sumner and Lindsey, 2011). Since these evolutions improve their outside options in case of divorce, the reforms may also improve women's and children's situation within marriage, as we shall see.

Figure 2: Divorce Trends around Reform Time



Source: Statistics Indonesia (*Badan Pusat Statistik*). Vertical dashed lines: years of observation (2007 and 2014 IFLS).

3 Theoretical Framework

We suggest a conceptual framework to pinpoint the main mechanisms at stake. It is based on a simple dynamic model with limited commitment (Mazzocco, 2007; Chiappori and Mazzocco, 2019), more specifically derived from Voena (2015) and aimed to elucidate the channels through which traditional norms and divorce laws may affect the probability of divorce and the position of women in marriage. We consider a household made of two individuals $j = H, W$, husband H and wife W, who are married at time 1 and live T periods. At each period t, they must decide whether to stay married, and how to allocate resources between the private consumption of each spouse and savings. The household, denoted $h = M, P$, can either belong to a matrilocal M or a patrilocal P ethnic group.

3.1 Preferences

Both spouses derive utility from their own private consumption c^{jh} and joint consumption of a public good Q^h. For the latter, the production function is written:

$$Q^h = \left[(x^{Hh})^{\frac{1}{\rho}} + (x^{Wh})^{\frac{1}{\rho}}\right]^{\rho} E(k)$$

with $\rho > 1$ and $E(k) \geq 1$, implying household returns to scale, and x^{jh} the contribution of j to the public good. Adding a time subscript, we write spouse j's utility functions under marriage

and divorce respectively as:

$$U^{jh}_{married}(c^{jh}_t, Q^h_t) = u^{jh}(c^{jh}_t, Q^h_t) + \chi^{jh} \quad \text{and} \quad U^{jh}_{divorced}(c^{jh}_t, x^{jh}_t) = u^{jh}(c^{jh}_t, x^{jh}_t)$$

with χ^{jh} denoting the subjective taste for marriage of each spouse, which may evolve over time. Assume that taste shocks follow a random walk stochastic process, which captures the persistence in taste for the current marriage:

$$\chi^{jh}_t = \chi^{jh}_{t-1} + \epsilon^{jh}_t \quad \text{and} \quad \chi^{jh}_1 = \epsilon^{jh}_1$$

with ϵ^{jh}_t i.i.d. as $N(0, \sigma^2)$. We now introduce here the main dimension of heterogeneity between matrilocal and patrilocal ethnic groups. We assume patrilocal women to suffer from a stronger social stigma from divorce in the household they live in. Formally:

Assumption I: $\chi^{WM}_1 < \chi^{WP}_1$.

We also assume that men suffer from a lower social stigma than women, irrespective of the ethnic group they belong to:

Assumption II: $\chi^{HM}_1 = \chi^{HP}_1 < \chi^{WM}_1$.

3.2 Income Dynamics and Budget Constraints

Assume spouses have a permanent income y^{jh} that may be modified in each period t by a random shock so that the income dynamic of each spouse follow a random walk process (Voena, 2015):

$$y^{jh}_t = y^{jh}_{t-1} + \zeta^{jh}_t \quad \text{and} \quad y^{jh}_1 = \zeta^{jh}_1$$

with ζ^{jh}_t i.i.d. as $N(0, \sigma^2)$. The two groups have the same expected total permanent household income.

For both ethnic groups the household budget constraint in each period is as follows:

$$A^h_{t+1} - (1 + r_t)A^h_t + c^{Hh}_t + x^{Hh}_t + c^{Wh}_t + x^{Wh}_t \leq y^{Hh}_t + y^{Wh}_t.$$

We discuss the problem of divorce for a community property regime where assets are shared equally between spouses, but we can extend result for context in which title-based and equitable sharing are applied. In a community property regime, assets accumulation is defined jointly between spouses. Under divorce, the budget constraint is modified as follows:

$$A^{jh}_{t+1} - (1 + r_t)A^{jh}_t + c^{jh}_t + x^{jh}_t \leq y^{jh}_t.$$

3.3 Problem of Divorce before the Reform

To understand how the reform has modified access to divorce, we make the following assumption:

Assumption III: Before the reform, the household probability to access divorce, denoted d, is equal to 0.

A zero d means that the spouses have no possibility to exit marriage. This approximation fits well the reality of many couples in Indonesia and the very low divorce rate recalled earlier.[7] At each period t, the couple's problem is determined by the state variables $\omega_t = \{A_t^h, y_t^{Hh}, y_t^{Hh}, \chi_t^{Hh}, \chi_t^{Wh}\}$ that maximize the following value function:

$$V_t(\omega_t) = \gamma^{Hh}[u^{Hh}(c_t^{Hh}, Q_t^h) + \chi_t^{Hh}] + \gamma^{Wh}[u^{Wh}(c_t^{Wh}, Q_t^h) + \chi_t^{Wh}] + \beta E[V_{t+1}(\omega_{t+1})]$$

where γ^{Hh} and γ^{Wh} are the Pareto weights of husband and wife respectively, which are determined by social norms and do not change with outside options.

3.4 Problem of Divorce after the Reform

We assume that the reform increases the accessibility of divorce equally for matrilocal and patrilocal women. Formally:

Assumption IV: After reform, the household probability to access divorce d is randomly drawn from the following probability distribution:

$$d^h = \begin{cases} 1 & \text{with prob. } p \\ 0 & \text{with prob. } 1-p. \end{cases}$$

When $d = 1$, spouses have the possibility to exit marriage. Since we are in a limited commitment set-up, we assume that divorce can be initiated unilaterally by each spouse. Thus, in each period, the household will stay in the marital union if there exists an allocation that makes both spouses better-off than the divorce allocation. In this case, the within-period Pareto weight (bargaining power) also enters the vector of state variables that now becomes $\omega_t = \{A_t^h, y_t^{Hh}, y_t^{Wh}, \chi_t^{Hh}, \chi_t^{Wh}, \tilde{\gamma}_t^{Hh}, \tilde{\gamma}_t^{Wh}\}$ where for each spouse $\tilde{\gamma}_{t+1}^{jh} = \tilde{\gamma}_t^{jh} + \mu_t^{jh}$. The parameter μ_t^{jh} is the Lagrange multiplier associated with the following participation constraint:

$$U_{married}^{jh}(c_t^{jh}, Q_t^h) + \beta E[V_{t+1}^{jh}(\omega_{t+1})|(\omega_t)] \geq V_{Divorced}^{jh}(\omega_t)$$

[7] This assumption also implies that women's position in marriage before the reform does not differ between couples of matrilocal versus patrilocal tradition. Again, this fact is verified empirically (there is little correlation between women's outcomes and matrilocal ancestry in 2007, i.e. before the reform, as detailed in Table B2).

As shown by Voena (2015), this limited commitment set-up implies that:

$$\frac{\frac{\partial U^{Wh}_{married}(c^{Wh}_t, Q^h_t)}{\partial c^{Wh}_t}}{\frac{\partial U^{Hh}_{married}(c^{Hh}_t, Q^h_t)}{\partial c^{Hh}_t}} = \frac{\tilde{\gamma}^{Hh}_t + \mu^{Hh}_t}{\tilde{\gamma}^{Wh}_t + \mu^{Wh}_t}$$

Combining assumptions I-IV, we can formulate the following predictions:

Prediction 1. *For households that have access to divorce after the reform, matrilocal women have in expectation a higher probability of divorcing than patrilocal women.*

Prediction 2. *For households that have access to divorce after the reform,* $E(\tilde{\gamma}^{WM}_t) > E(\tilde{\gamma}^{WP}_t)$*, i.e. women from matrilocal origins have in expectation a higher bargaining power in marriage than patrilocal women.*

Proofs are provided in Appendix D. These two predictions are precisely what we aim to test with the difference-in-difference analysis that follows.

4 Empirical Approach

4.1 Data

IFLS Data. The empirical analysis draws on data from the Indonesia Familiy Life Survey (IFLS). It is particularly well-suited for our study, as it contains extensive socioeconomic data at the individual level (including information on individuals' ethnicity, marital history, health status and subjective well-being) and at household level (including decision-making questions, household composition and economy). IFLS samples also contain village-level information, notably the ethnic composition and prevalent kinship norms (including inheritance and post-marital residence norms), as provided by *Adat* experts or community leaders. Even though repeated cross-sections would be sufficient for our double difference analysis, the panel dimension is appreciable as it allows us to control for household fixed effects. Moreover, the IFLS benefits from an exceptionally low attrition rate so the sample remains representative at every wave.[8]

Selection. We select non-polygamous households and exclude 'mixed' couples, i.e. when spouses originate from two different ethnic groups with different post-marital residence norms. We focus on the 2007 and 2014 waves, two years surrounding the Access-to-Justice reforms (2008-10). Our main analysis considers women's well-being and empowerment outcomes within

[8]The IFLS is based on an initial sample representing about 83% of the Indonesian population living in 13 of the 27 Indonesian provinces in 1993. Extensive efforts were provided to track respondants when collecting data in each of the five waves (1993, 1997, 2000, 2007 and 2014) to reach a recontact rate of 92% in the last wave (Strauss et al., 2016).

stable marriages (i.e. not remarried) over 2007-2014. To check the parallel trend assumption over the pre-reform period (2000-2007), we will use couples married from 2000 to 2014 with the same partner (or, alternatively, couples married in both 2000 and 2007 with the same partner). We will also use a double difference approach to characterize the effect of the reform on women's divorce rates. In that case, we will use different alternative samples as described hereafter.

Outcome Variables. We consider a series of outcomes pertaining to a women's empowerment and to her or a children's well-being, as reported in the IFLS. Well-being variables include a dummy indicating whether a woman experienced at least one morbidity symptom in the last 4 weeks preceeding the survey, the woman's number of living births, the adequacy of her own and her children's standard of living and food consumption on 1-3 scales, and the value of assets owned by the wife (in thousands of rupiah).[9] Empowerment variables are dummies indicating whether the wife and/or her potential relatives have the final say regarding key dimensions of household choices including contraception and large household expenditures.[10]

Treatment Intensity: Ethnicities' Traditional Post-marital Residence. As previously discussed, we focus on ethnic heterogeneity in terms of traditional residence norms. The traditional norm of each ethnicity is not explicitly reported but can be proxied following a simple methodology, as already suggested by Buttenheim and Nobles (2009). The IFLS contains information on individual ethnicity and we can categorize villages according to their main ethnicity. For each group of villages of the same prevailing ethnicity, we observe the distribution of *Adat* experts' answer to the question about "where the newly married couple lives after wedding according to the traditional law", as reported in Table A1. To attribute to each woman the traditional residence norm of her ethnicity, we retain the modal answer. Note that it is systematically matrilocality or patrilocality (rather than neolocality or ambilocality), so that an ethnic group's traditional norm will be a binary information as indicated in the last column. We obtain a proportion of about 83% (17%) individuals with a matrilocal (patrilocal) ethnic heritage. As reported in Table A2, we find that the traditional residence norm is still a very significant predictor of a couple's actual household composition in 2014.[11]

[9] Other child outcomes could be considered, for instance the gender of the last child as a proxy for son preferences (and the stopping rule when couple obtain the desired number of boys, see Jayachandran and Kuziemko 2011).

[10] These dimensions seem relevant and have been used in previous studies on muslim countries – see for instance Sadania (2016) or Lépine and Strobl (2013) for Egypt and Senegal respectively. Other aspects are deemed less relevant, such as decisions upon daily purchase and cooking, since they may reflect delegation of responsibility rather than women's genuine autonomy (Baland et al., 2020).

[11] A possible alternative strategy would consist in instrumenting the actual residence choice by the traditional norm. Table A2 shows that a first-stage estimation of traditional matrilocality on presence of wife's relatives in the household (plus standard controls) yields a F-statistic well above 10. We do not follow this path because, as explained in sections 2.1 and 2.2, we want to use the traditional norm directly, for it carries more information than actual residence choices on gender rights and roles within an ethnic group.

Descriptive Statistics and Raw Difference-in-Differences. Descriptive statistics for couples from matrilocal or patrilocal ethnic traditions are reported in Table A3 for both 2007 and 2014. The upper panel describes standard socio-demographic characteristics (the rest of the table focuses on additional controls used in the robustness checks analysis and commented later). This set of characteristics, denoted X_{it} hereafter, is important as it will be used as controls in the estimations. It includes dummies for being a university graduate, currently working, living in rural areas, being muslim as well as for age groups (using 5-year steps) to capture life cycle effects. We see that women of ethnic matrilocal customs tend to work less and be more often urban and muslim than their patrilocal counterparts. These differences seem to be constant over time. The last column reports the time difference of the matrilocal-patrilocal difference, i.e. a raw difference-in-difference (DD) calculations on these characteristics. It confirms that there is no significant change over time, which is reassuring on the absence of confounding factors. For instance, the reform could affect muslims more than non-muslims, which would be what we capture by confronting matrilocal and patrilocal groups. While it does not seem to be the case, our estimations will control for the whole set of characteristics and their differentiated effect over time.

Regarding outcomes, statistics are reported in Table A4. We distinguish well-being variables from final say measures on key decisions. There is little difference between matrilocal and patrilocal groups in the pre-reform period (this is the case for 8 out of 9 variables and a F-test cannot reject the equality of both sets of mean values). Interestingly, strong differences emerge in the end period, both in terms of well-being and empowerment. The raw DD actually indicates that relative to the pre-reform period, the situation of women of matrilocal tradition significantly improves: less morbidity symptoms, more control over fertility (both number of birth and final say on contraception), better living conditions and nutrition for them and their children, more asset accumulation, more control over large household expenditure. DD estimations will refine these raw calculations but both sets of results are consistent (we will verify that raw DD and actual DD estimates are in line both in terms of significance and orders of magnitude). We also carry out simple estimations of these outcomes on a dummy for belonging to an ethnicity of matrilocal tradition (and additional controls as described in the double difference approach), for each year separately. Results in Table B2 show that there is not much difference between ethnic groups in 2007 but very strong differences in 2014, after the reforms.

4.2 Empirical Approach

Difference-in-Difference Estimations. We denote y_i the outcome (female well-being/empowerment measures), for a woman in household i observed at time t. The treatment variable, $Matrilocal_i$,

is equal to 1 (0) if the woman's ethnic group is traditionally matrilocal (patrilocal). Importantly, nothing precludes women of patrilocal tradition to be affected by the reform. Hence, what our difference-in-difference approach captures is a potential difference in the *intensity of treatment* between the two groups. Nonetheless, we will comment on first-difference effects of the reform regarding women of patrilocal tradition, which give very suggestive indication of the potential direction of the reform overall. Given that we pool only two years, time effects are simply denoted by $Post_t$, which is equal to 1 for the period following the Access-to-Justice reform (year 2014) and 0 for the base period (year 2007). The estimation conducted on pooled years is described by the following equation:

$$y_{it} = \alpha + \beta Post_t \times Matrilocal_i + \gamma Post_t + \delta X_{it} + \eta Post_t \times X_{it} + \phi_i + \varepsilon_{it}. \quad (1)$$

The coefficient γ on $Post_t$ captures the time trend in the outcome, which includes the effects of the reforms common to all the Indonesian ethnicities, as identified on the households of patrilocal tradition (the 'untreated'). The coefficient β on the interaction term is the difference-in-difference estimator, representing the extra effect of belonging to an ethnicity of matrilocal tradition (the 'treated') once the reforms are in place. Household fixed effects ϕ_i implicitly pick the average time-invariant difference between ethnic groups (and notably the difference between matrilocal and patrilocal traditions, i.e. $Matrilocal_i$ is absorbed by the fixed effects). Covariates X_{it} may improve the precision of the model but also control for the difference in time-varying observables between matrilocal and patrilocal ethnic groups, as previously discussed. Standard errors are clustered at the level of the women's village of origin to correct for potential geographical correlation in error terms.[12]

Identification Issues. *First*, in the context of a DD analysis, treated and control groups are not randomly chosen and may be very different. We have seen that women of matrilocal ethnic groups work significantly less, are more often muslim and are more urban. Hence, the measured effect might be due to different time trends in these variables – for instance differentiated responses to the reform between muslim and non-muslim – rather than between traditional residence norms. We have partly ruled out this possibility when presenting the descriptive statistics for X_{it}. However, we also include interactions $Post_t \times X_{it}$ to completely account for (possibly confounding) time trends pertaining to specific religion or geographical groups in the DD estimation. *Second*, another usual concern is the potential presence of unobservables, which would affect the outcome trends of matrilocal and patrilocal ethnic groups differently.

[12]Villages of origin are where the woman's household lived in the first wave of the IFLS (1993). It seems reasonable to use such a variable for it is time-invariant in our estimations and presumably closer to the time of marriage.

A minimum requirement in this respect will consist in checking whether the outcomes of the two groups show parallel trend prior to the reforms under study, namely between 2000 and 2007. *Third*, we have extensively checked that throughout the 2007-2014 period, there was no major (potentially confounding) policy or social change that could have affected women's empowerment in a differentiated way between couples of patrilocal versus matrilocal origins. *Fourth*, we consider the possibility of endogeneous policy changes (Bertrand et al., 2004; Besley and Case, 2000). This would be the case if the series of reforms was triggered by a pre-existing rise in power by women who could best benefit from policy changes, namely women of matrilocal ethnicities. Several points mitigate this concen: (i) the Access-to-Justice strategy was implemented at a national level, not targeting any particular social or ethnic groups; (ii) it was prompted by international influence, notably that of the Family Court of Australia, AusAID and other stakeholds, as previously described; (iii) common trends in the pre-reform period will guarantee that there is a priori no differentiated trends in empowerment between ethnic groups that would eventually lead to the reforms.

5 Results

5.1 Effect of the Reforms on Divorce

A preliminary set of results pertains to the effect of the reform on divorce. We have conjectured that an enhanced access to justice may increase the mere possibility of divorce and that it would occur relatively more among ethnicities of matrilocal tradition. We check this prediction with estimations reported in Table 2. We first apply a difference-in-difference approach to women's marital status for the pooled years 2007 and 2014, using the same specification as outlined in the previous section. To assess the mere transitions from marriage to divorce in both years, we first consider a sample of women previously married (model 1). Alternatively, we keep the whole sample of women observed in both 2007 and 2014 but selecting only those married or divorced, i.e. excluding the singles and widowed (model 2). We also combine both selection criteria (model 3) or keep the first one while considering a status as divorced or separated (model 4). All the models leads to a significant effect of the reform on the probability of divorce for women of matrilocal ethnicities compared to patrilocal counterparts. Relative to the pre-reform divorce rate in the control group, the effect represents an increase of 40%-66% in divorce rates across the different models. The coefficient on Post shows no first-difference effect of the reform for the control group, suggesting that in the absence of counteracting time changes, the burden of divorce must have remained heavy for women of patrilocal heritage.

We also estimate a simple difference model for the year 2014, using the subsample of women married in 2007. We consider both outcomes: divorce (model 5) or divorce/separation (model

6). Being from a matrilocal tradition leads again to a significant relative impact of the reforms and of a very similar magnitude compared to DD estimations. In Appendix Table C1, we test the parallel trend assumption for the DD or a direct change in marital breakdown for the simple difference approach. We use a placebo sample pooling years 2000-2007 and the very same types of specifications. In all of them, placebo estimates are not statistically different from zero, i.e. there is no sign of specific trends in divorce among ethnic groups of matrilocal tradition before the reforms.

5.2 Main Results: Effect of the Reforms on Women's Outcomes

Previous results establish that by fostering access to justice, the reform has significantly increased divorce rates among women in matrilocal ethnicities, verifying the first theoretical prediction. The second prediction entails a relative gain in bargaining power among women of matrilocal groups (section 3). This result stems both from a more frequent renegotiation among matrilocal ethnic groups and because of a selection effect (matrilocals divorce more so that those who stay in marriage have obtained favorable renegotiations, cf. appendix D).

We check this prediction formally with the DD approach laid out in equation (1). Our baseline estimations are conducted on stable marriages (spouses observed married in both 2007 and 2014) but we also provide results for a broader selection hereafter. Baseline results are presented in Table 3. For most of the outcomes, the coefficient on Post is not statistically different from zero. It suggests that, if no other forces affect women's position within the private sphere over time, women of patrilocal ethnicities do not benefit much from the reform. In contrast, the DD estimates confirm that matrilocal women experience a relative improvement in their living conditions. As seen in descriptive statistics, their morbidity symptoms decrease, the number of births is reduced, women's and children's standard of living and food consumption improve, the wives' asset accumulation increases, and the final say over contraception and large expenditure is in progress. The magnitude of the effect, relative to the pre-reform control group outcome, is substantial. In absolute values, it ranges from an increase of 7-10% in mothers and children's standard of living and nutrition up to a near doubling of the final say variables (+85% and 104% on decisions upon contraception and large household expenditures respectively).[13]

[13]Relative effects tend to be large given that we start from very low rates of female say before the reform. For instance, decisions upon large expenditure are broadly in the hands of men. As indicated in Table A4, women of matrilocal (patrilocal) ethnicities have the final say in this domain in only 6.4% (5.3%) of the cases in 2007. DD results indicate a relative increase of 5.5 percentage points for the matrilocals.

Table 2: Effect of Legal Reforms on Women's Divorce Probability

Dep. Var.	Divorced	Divorced	Divorced	Divorced or Separated	Divorced	Divorced or Separated
Estimator	Diff-in-Diff				Simple Diff.	
Samples	Married before 2007	Excluding singles and widowed	Excluding singles & widowed, married before 2007	Married before 2007	Married in 2007	Married in 2007
	(1)	(2)	(3)	(4)	(5)	(6)
Post	0.0225	0.00575	0.0164	0.000335		
	(0.0231)	(0.00907)	(0.0160)	(0.0297)		
Post × Matrilocal	0.0103**	0.0125***	0.0107**	0.0122**		
	(0.00434)	(0.00472)	(0.00486)	(0.00512)		
Matrilocal					0.00879***	0.00928***
					(0.00287)	(0.00336)
Rel. effect	66.0%	40.2%	63.3%	53.0%	56.3 %	40.3%
Observations	12,752	17,390	10,892	12,752	8,801	8,801
R-squared	0.007	0.008	0.008	0.006	0.005	0.005
Clusters	318	319	318	318	319	319
Individual FE	Yes	Yes	Yes	Yes	No	No
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Post × Controls	Yes	Yes	Yes	Yes	No	No

Linear estimations of women's divorce status (dummy for divorced, or divorced/separated). We apply the difference-in-difference approach to a selection of women observed in both 2007 and 2014, who were married in 1997 and/or 2000 (columns 1, 3 and 4); and a selection of women being married, divorced or separated in 2007 and 2014 (columns 2 and 3). For them, Post is equal to 1 for observations in 2014 (post-reform) and 0 in 2007 (pre-reform). We also estimate the potential increase in divorce using women observed in 2014 who were married in 2007 (columns 5 and 6). Matrilocal is a dummy indicating whether an individual belongs to a traditionally matrilocal ethnic group. Estimations include individual FE (absorbing Matrilocal and muslim - column 1-4), time-varying controls (women's characteristics: university graduate, currently working, living in rural areas and age group dummies using 5-year steps), + a muslim dummy in columns 5 and 6, and interactions between Post and controls (including Post interacted with a muslim dummy) in columns 1-4 as indicated. Standard errors are reported in brackets and clustered at village of origin level. Significance levels: * p<0.10, ** p<0.05, *** p<0.01.

Table 3: Effect of Legal Reforms on Women's Well-Being and Empowerment (Stable Couples, 2007-14)

	Women's and Child's Well-Being							Women's Empowerment	
	Morbidity symptoms	Number of births	Standard of living	Food consumption	Children's std. of living	Children's food conso.	Wife's assets value	Contraception	Large expenditures
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Post	1.327**	2.577	0.467	-0.563	-0.0617	0.267	10,203	0.321	0.0863
	(0.529)	(3.411)	(0.505)	(0.401)	(0.431)	(0.565)	(33,483)	(0.239)	(0.140)
Post × Matrilocal	-0.0887***	-0.233**	0.191***	0.188***	0.152***	0.140***	10,689**	0.163***	0.0549***
	(0.0319)	(0.0915)	(0.0536)	(0.0507)	(0.0541)	(0.0500)	(5,286)	(0.0333)	(0.0159)
Relative effect	-12.6%	-7.6%	9.7%	9.3%	7.6%	6.9%	47.1%	85.3%	103.6%
Observations	11,840	11,490	11,546	11,548	6,730	6,728	11,870	10,884	10,884
R-squared	0.047	0.348	0.043	0.059	0.039	0.073	0.083	0.065	0.088
Clusters	318	318	318	318	316	316	318	317	317
Household FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Post × Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Difference-in-difference estimations of well-being and empowerment indicators on a sample of stable couples surveyed in both 2007 and 2014. Post is equal to 1 for 2014 (post-reform) and 0 for 2007 (pre-reform). Matrilocal is a dummy indicating whether an individual belongs to a traditionally matrilocal ethnic group. All estimations include household FE (absorbing Matrilocal and muslim), time-varying controls (women's and husband's characteristics: university graduate, currently working, living in rural areas and age group dummies using 5-year steps) and interactions between Post and controls (including Post interacted with a muslim dummy). Well-being outcomes: dummy indicating whether a woman experienced at least one morbidity symptom in the last 4 weeks preceeding the survey ('Morbidity Symptoms'), the woman's number of living births ('Number of Births'), the adequacy of her standard of living and food consumption on a 1-3 scale ('Standard of living' and 'Food consumption'), the adequacy of her children's standard of living and food consumption on 1-3 scales ('Children's std. of living' and 'Children's food conso.'), and the value of assets owned by the wife (in thousands of rupiah). Empowerment outcomes: dummies indicating whether the wife and/or her potential relatives have the final say (while the husband does not have any say) regarding key dimensions of household choices including contraception and large household expenditures . The relative effect is calculated in % of mean outcome for patrilocal group in 2007 (pre-reform). Standard errors are reported in brackets and clustered at village of origin level. Significance levels: * p<0.10, ** p<0.05, *** p<0.01.

These magnitudes are very much in line with the raw DD calculations presented above. For instance, the raw DD for the women's living standard of (.150) is of a similar order as the DD estimate (.190). It is also similar to the difference in the matrilocal effect in 2014 compared to that effect in 2007 in the cross-sectional estimations of Table B2 (-.084-.107=.191). The latter comparison boils down to a DD on stable couples 2007-2014 but ignoring the panel dimension and household fixed effects. For a robustness check and to verify that our results are not associated with the specific focus on stable couples, we also run DD estimation on repeated cross-sections for 2007 and 2014 whereby the only selection criteria is to focus on married women. As can be seen in Table B3, results are again similar to the fixed-effect DD estimates (for instance, .203 in our example on women's living standards).[14]

5.3 Robustness Checks, Heterogeneity and Interpretations

Common Trends. For both well-being and empowerment measures, common trends are verified in placebo estimations reported in Table C2. With one exception, placebo estimates obtained over the pre-reform period 2000-2007 are insignificant. We also conduct an extensive series of sensitivity checks. We focus hereafter on two robustness analyses on the sensitivity to model specification and to the definitions of empowerment outcomes.

Sensitivity Analysis: Alternative Pathways. We check if our results are sensitivite to the set of controls included in the model. This is important because some variables, such as being muslim or rural, are highly correlated with traditional matrilocality and may be seen as the pathway through which the reform impacts upon women's conditions. In our descriptive statistic analysis, we have partly addressed this concern, showing that the main characteristics have not changed differently between matrilocal and patrilocal ethnic groups over time. Nonetheless, we check whether our DD estimates are sensitive to the inclusion of $Post_t \times X_{it}$ terms. Table C3 reports the relative effects from alternative DD estimations. The first row reproduces our benchmark estimates. The second row shows the series of estimates from a model where $Post_t \times X_{it}$ are fully withdrawn. Relative effects change quantitatively for some of the outcomes but the order of magnitude is broadly preserved and our conclusions are unchanged. Women of matrilocal ethnic groups are more often muslim and urban than their

[14]Note that in additional, unreported estimations, we also test the effect of the reform on female labor market participation and find no differential effect among women of matrilocal ancestry. Admittedly, it is unclear which effect to expect. An increased risk of divorce may benefit to women in stable marriage and increase their leisure time – this is the finding of Voena (2015) for women in US states that shift to unilateral divorce, when property is divided equally. Alternatively, the risk of divorce may also push them to take up a job as a security in case of divorce, which is particularly true when female participation is low (see Bargain et al. 2012 in the context of divorce legalization). In the case of Indonesia, the pre-reform participation rate of about 50% was not particularly low compared to other muslim countries. Moreover, work is not necessarily seen as an insurance against poverty in case of divorce, since women's activities are typically informal and bring only complementary income (Verick, 2018).

patrilocal counterparts. Removing only $Post_t \times Rural_i$ hardly affects baseline estimates (3rd row). Excluding $Post_t \times Muslim_i$ in the 4th row leads to some variation (as in the second row) but does not fundamentally change our results – the baseline effects of the reform are not driven by different time trends between muslims and non-muslims.

In addition, we also include new controls to the model. Javanese represent the main ethnic group and account for 56.5% of matrilocal individuals in our sample. To check whether specific time trends in this group may drive our results, we include $Post_t \times Javanese_i$ in the model: results are barely changed (5th row). Alternatively, we run our baseline specification on a sample excluding the javanese (6th row): despite a sharp reduction in sample size, we find very similar results compared to the baseline. Finally, couples of mixed ethnicity are more often represented among matrilocal couples. We explicitly control for $Post_t \times Mixed\ Ethnicity_i$ (7th row). Finally, geographical polarization of certain ethnic groups could also be envisaged as a potential alternative explanation to our results. We have previously checked that ethnicities of matrilocal tradition do not necessarily live closer to the capital of the district, where religious and civil courts are located. Moreover, we have also documented the fact that part of the reform consisted in increasing the frequency of 'circuit courts' visiting people in remote areas. Nonetheless, we also provide additional estimations where we now control for $Post_t \times Close_i$ with the $Close_i$ dummy indicating whether the household lives in the two first tertiles of the distance to the district capital. Results are reported in the upper panel of Table 4, which is dedicated to a complete analysis on the role of distance. This check shows no major difference with the baseline estimates.

Sensitivity Analysis on Empowerment Measures. Two outcomes correspond to final say measures pertaining to key decisions that may not be associated to delegation and rather interpreted as genuine autonomy for women. We provide some sensitivity checks regarding their definition and measure. For both types of decisions, Table C4 first reproduces the baseline estimates (columns 1 and 5). They are obtained for final say outcomes defined as dummies equal to 1 if the wife and/or her relatives decide (while the husband does not have any say), 0 otherwise. We then show results corresponding to a more restrictive definition whereby empowerment means that the wife decides alone (columns 2 and 6). This is an interesting check given the fact that our main source of heterogeneity pertains to traditions regarding coresidence with spouses' relatives. We find hardly any change compared to the initial estimates. Next, we address the fact that final say outcomes are recorded by the husband. It may vary compared to the wife's answer about who decides on each item in the household. The heterogeneity can go both ways. Our baseline may understate women's decision power if men do not recognize when their wife has the say. Inversely, empowerment may be more firmly established when the husband admits that she is the decision maker in a given domain. We simply reestimate

the model for outcomes based on the wife's answers (columns 3 and 7). Estimates are reduced by around a third but remain very significant. The last set of results combine both variants (columns 4 and 8) and leads to the same conclusions.

Heterogeneity We finally derive heterogeneous effects by interacting the treatment variable with key characteristics (such as religion). Unreported estimations show no particular pattern in general but one dimension comes out quite interestingly: the distance to the capital of the local district. Results are reported in Table 4. We have already commented on the upper part where we check that our estimates are not affected by potentially different time trends for those living with an easier access to religious/civil courts, which would confound our interpretation if women of matrilocal traditions systematically lived nearer to the district capital.[15] The lower panel of this table suggests heterogeneous effects of the reform. We interact $Post \times Matrilocal$ with 'close' and 'far' dummies defined as belonging to a village located in the two first and in the third tertiles of distance to the district capital respectively. For almost all outcomes (except wife's assets value and final say on contraception), the effect of the reform is larger for those living further away. Reported t-tests do not reject equality between distance groups in general (it does for children's food consumption) but this pattern is intriguing. In fact, if we take into account structural differences between groups – for instance the fact that women's decision power on contraception is smaller in far away villages – then we yield contrasted relative effects that are systematically larger (except for wife's assets value) for women living far from administrative centers.[16] These results are purely suggestive but may indicate that the set of reforms tends to benefit poor villager women more, possibly as an effect of circuit courts, which especially help those in remote regions, or the reduced cost of legal procedures through the court fee-waivers.

[15]Note that the sample is reduced by around 20% due to the fact that distance information is available only for those who lives in the village of origin. Results in the upper panel of Table 4 show the robustness of our results not only to the control for $Post \times Close$ but also to the use of this smaller sample.

[16]Relative effects are calculated as the DD estimate relative to mean pre-reform control group outcomes while distinguishing according to distance to district capital.

Table 4: Heterogenous Effect of the Reform according to the Distance to District Capital

	Women's and Child's Well-Being							Women's Empowerment	
	Morbidity symptoms	Number of births	Standard of living	Food consumption	Children's std. of living	Children's food conso.	Wife's assets value	Contraception	Large expenditures
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Average Effect (Controlling for Post × Close)									
Post × Matrilocal	-0.0821**	-0.248**	0.197***	0.201***	0.181***	0.140**	11,265*	0.186***	0.0612***
	(0.0335)	(0.106)	(0.0631)	(0.0570)	(0.0646)	(0.0646)	(5,738)	(0.0365)	(0.0169)
Relative effect	-11.8%	-7.4%	10.0%	10.0%	9.0%	6.9%	54.7%	93.9%	139.1%
Observations	8,564	8,228	8,310	8,310	4,444	4,444	8,566	7,910	7,910
R-squared	0.045	0.304	0.046	0.054	0.054	0.069	0.086	0.073	0.096
Clusters	314	314	314	314	302	302	314	314	314
Heterogenous Effect									
Post × Matri. × Close	-0.0752*	-0.226*	0.170**	0.195***	0.144*	0.0734	16,119**	0.203***	0.0507**
	(0.0400)	(0.130)	(0.0662)	(0.0617)	(0.0762)	(0.0704)	(7,840)	(0.0394)	(0.0218)
Post × Matri. × Far	-0.0924*	-0.279	0.236**	0.210**	0.237***	0.239***	4,093	0.161***	0.0763***
	(0.0482)	(0.175)	(0.102)	(0.0862)	(0.0807)	(0.0862)	(5,375)	(0.0593)	(0.0234)
Relative effect:									
Close	-10.1%	-6.8%	8.6%	9.5%	7.1%	3.6%	61.1%	87.9%	126.2%
Far	-14.5%	-8.2%	12%	10.5%	11.8%	11.8%	30%	101.3%	159.7%
Observations	8,564	8,228	8,310	8,310	4,444	4,444	8,566	7,910	7,910
R-squared	0.045	0.304	0.046	0.054	0.054	0.071	0.086	0.074	0.097
Clusters	314	314	314	314	302	302	314	314	314
T-Test Equal. (p-val.)	0.765	0.806	0.549	0.872	0.310	0.086	0.139	0.513	0.399
Household FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Post × Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Post × Close	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

DID estimations on a sample of stable couples surveyed in both 2007 and 2014. Post is equal to 1 for 2014 (post-reform) and 0 for 2007 (pre-reform). Outcomes and 'Matrilocal' are defined in Table 3. Estimations include household FE (absorbing matrilocal and muslim dummies), controls defined in Table 3 and Post interacted with 'Close', a dummy indicating individuals living close to the district capital (i.e. below the 2nd tertile of distance). 'Far' is a dummy indicating individuals living far to the district capital (i.e. above the 2nd tertile of distance). The relative effect is calculated in % of mean outcome for patrilocal group in 2007 (pre-reform) in each group of distance to district capital. Standard errors are reported in brackets and clustered at village of origin level. Significance levels: * p<0.10, ** p<0.05, *** p<0.01. T-test of equal treatment effects between individuals that are close and far from district capital (p-value).

6 Conclusions

Social scientists increasingly recognize the role played by traditional norms in shaping individual behavior and affecting economic development (Bank, 2015). Very recent studies actually show that customs and social norms can strongly mitigate the impact of development programs aimed at supporting disadvantaged groups such as women. This paper contributes to this nascent literature by focusing on legal reforms, which may also promote access to justice and embolden women in the exercise of their rights. We examine such a reform in the context of Indonesia, where ethnic heterogeneity in terms of gender roles transpires through the type of traditional residence norms after marriage, namely matrilocality or patrilocality. We document a strong global correlation between ancestral matrilocality and contemporaneous perceptions about gender role, especially in low-divorce regions such as Indonesia. For this country, we test whether deeply rooted norms also affect the exposure to the access-to-justice reform. We find that women originating from customary matrilocal ethnic groups tend to divorce more after the reform, relative to those from patrilocal tradition. It also appears that a subsequent renegotiation takes place in stable marriages so that women from matrilocal groups experience a significant increase in well-being and empowerment.[17]

Our study sheds some light on how cultural norms may interact with development policies and legal changes. We suggest that the progressive legal reforms compound with social norm in a way that make them effective only for some segments of the population, exacerbating the inequality of treatment *between* women. This statement must slightly be nuanced, because women of matrilocal tradition were not *homogeneously* better off than those from patrilocal ethnicities before reform. Further analyses suggest that within the matrilocal groups, the most disadvantaged women – living in remote areas and possibly in more conservative milieu – have caught up a little in terms of empowerment, possibly thanks to specific features of the reform such as circuit courts. Anyhow, the main implication of these results is that legal reforms can exclude subpopulations who, because of social norms, cannot takeup legal services as much as others. Policies, even when designed nationally, should be tailored to specific cultural contexts. More specifically, our results contribute to the analysis of patrilocality per se, a norm that not only reduces parents' incentive to invest in daughters' human capital, but also tends to have persistent consequences by limiting women's legal opportunities in the longer run.

[17] A potential limit of our empirical approach might be that the main measures under study took place between 2008 and 2010 while our post-reform period of observation is 2014. On the contrary, what we capture in our estimates is likely to be a middle-term consequences of the reforms, which is arguably more interesting than the situation in 2010. Indeed, it allows a possible period of adaptation for the new measures to become fully operational and women to adapt to new legal opportunities.

References

Alesina, A., B. Brioschi, and E. L. Ferrara (2016). Violence against women: a cross-cultural analysis for africa. *NBER Working Paper*.

Alesina, A. and E. L. Ferrara (2005). Ethnic diversity and economic performance. *Journal of Economic Literature 43*(3), 762–800.

Alesina, A., P. Giuliano, and N. Nunn (2013). On the origins of gender roles: Women and the plough. *The Quarterly Journal of Economics 128*(2), 469–530.

Alfitri (2011). Legal reform project, access to justice and gender equity in indonesia. *Indonesian Journal of International Law 9*, 292.

Ashraf, N., N. Bau, N. Nunn, and A. Voena (2020). Bride price and female education. *Journal of Political Economy*.

Baland, J.-M., M. Boltz, G. Catherine, M. Seleck, and R. Ziparo (2020). Optimal intra-household decision structure. *Working Paper*.

Bank, W. (2015). World development report 2015: Mind, society, and behavior. *Washington, DC: World Bank Publications*.

Bargain, O., L. González, C. Keane, and B. Özcan (2012). Female labor supply and divorce: New evidence from ireland. *European Economic Review 56*(8), 1675–1691.

Bau, N. (2016). Can policy crowd out culture? *Working Paper*.

BenYishay, A., P. Grosjean, and J. Vecci (2017). The fish is the friend of matriliny: Reef density and matrilineal inheritance. *Journal of Development Economics 127*, 234–249.

Bertrand, M., E. Duflo, and S. Mullainathan (2004). How much should we trust differences-in-differences estimates? *The Quarterly Journal of Eeconomics 119*(1), 249–275.

Besley, T. and A. Case (2000). Unnatural experiments? estimating the incidence of endogenous policies. *The Economic Journal 110*(467), 672–694.

Botticini, M. and A. Siow (2003). Why dowries? *The American Economic Review 93*(4), 1385–1398.

Buttenheim, A. M. and J. Nobles (2009). Ethnic-based nuptial regimes and marriage behaviour. *Population studies 63*(3), 277.

Chiappori, P.-A. and M. Mazzocco (2019). Static and intertemporal household decisions. *Journal of Economic Literature*.

Corno, L., A. Voena, et al. (2016). Selling daughters: age of marriage, income shocks and bride price tradition. *Working Paper*.

Doepke, M. and M. Tertilt (2009). Women's liberation: What's in it for men? *The Quarterly Journal of Economics 124*(4), 1541–1591.

Duflo, E. (2001). Schooling and labor market consequences of school construction in indonesia: Evidence from an unusual policy experiment. *The American Economic Review 91*(4), 795–813.

Duflo, E. (2012). Women empowerment and economic development. *Journal of Economic Literature 50*(4), 1051–1079.

Dyson, T. and M. Moore (1983). On kinship structure, female autonomy, and demographic behavior in india. *Population and Development Review*, 35–60.

Ebenstein, A. (2014). Patrilocality and missing women. *Working Paper*.

Edlund, L. (2001). Dear son-expensive daughter: Do scarce women pay to marry? *Manuscript, Columbia Univ*.

Garg, A. and J. Morduch (1998). Sibling rivalry and the gender gap: Evidence from child health outcomes in ghana. *Journal of Population Economics 11*(4), 471–493.

Grace, J. (2004). Sasak women negotiating marriage, polygyny and divorce in rural east lombok. *Intersections: Gender, History and Culture in the Asian Context 10*.

Guha, B. (2010). Patrilocal exogamy as a monitoring mechanism: How inheritance and residence patterns co-evolve.

Jayachandran, S. (2015). The Roots of Gender Inequality in Developing Countries. *Annual Review of Economics 7*(1), 63–88.

Jayachandran, S. and I. Kuziemko (2011, 08). Why Do Mothers Breastfeed Girls Less than Boys? Evidence and Implications for Child Health in India. *The Quarterly Journal of Economics 126*(3), 1485–1538.

La Ferrara, E. (2007, 02). Descent rules and strategic transfers. evidence from matrilineal groups in ghana. *Journal of Development Economics 83*, 280–301.

La Ferrara, E. and A. Milazzo (2017). Customary norms, inheritance, and human capital: evidence from a reform of the matrilineal system in ghana. *American Economic Journal: Applied Economics, Forthcoming*.

Lépine, A. and E. Strobl (2013). The effect of women's bargaining power on child nutrition in rural Senegal. *World Development 45*, 17–30.

Levine, D. and M. Kevane (2003). Are investments in daughters lower when daughters move away? evidence from indonesia. *World Development 31*(6), 1065–1084.

Lowes, S. (2018). Kinship systems, gender norms, and household bargaining: Evidence from the matrilineal belt. *Working Paper*.

Lowes, S., N. Nunn, J. A. Robinson, and J. L. Weigel (2017). The evolution of culture and institutions: Evidence from the kuba kingdom. *Econometrica 85*(4), 1065–1091.

Mazzocco, M. (2007). Household intertemporal behaviour: A collective characterization and a test of commitment. *The Review of Economic Studies 74*(3), 857–895.

Rammohan, A. and M. Johar (2009). The determinants of married women's autonomy in indonesia. *Feminist Economics 15*(4), 31–55.

Rammohan, A. and P. Robertson (2012). Do kinship norms influence female education? evidence from indonesia. *Oxford Development Studies 40*(3), 283–304.

Sadania, C. (2016). Working and women's empowerment in the egyptian household: The type of work and location matter. AMSE Working Papers 1722.

Strauss, J., F. Witoelar, and B. Sikoki (2016). The fifth wave of the indonesia family life survey: Overview and field report.

Sumner, C. and T. Lindsey (2011). Courting reform: Indonesia's islamic courts and justice for the poor. *International Journal for Court Administration 4*(1), 3–16.

Sumner, C., M. Zurstrassen, and L. Lister (2011). Increasing access to justice for women, the poor, and those living in remote areas: An indonesian case study. *World Bank Justice for the Poor Briefing Note 6*(2).

Sun, A. and Y. Zhao (2016). Divorce, abortion, and the child sex ratio: The impact of divorce reform in china. *Journal of Development Economics 120*, 53–69.

Sundaram, A. and R. Vanneman (2008). Gender differentials in literacy in india: The intriguing relationship with women's labor force participation. *World Development 36*(1), 128–143.

Verick, S. (2018). Female labor force participation and development. *IZA World of Labor*, 87v2.

Voena, A. (2015). Yours, mine, and ours: Do divorce laws affect the intertemporal behavior of married couples? *The American Economic Review 105*(8), 2295–2332.

Appendix A. Descriptive Statistics and Raw Difference-in-Difference

Table A1: Determination of Traditional Post-Marital Residence Norm by Ethnicity

Ethnicity	# Villages	Matrilocal (%)	Patrilocal (%)	Ambi/Neolocal (%)	Norm
Jawa	109	64.22	17.43	18.35	Matrilocality
Sunda	40	67.50	7.50	25.00	Matrilocality
Bali	15	0.00	86.67	13.33	Patrilocality
Minang	12	100.00	0.00	0.00	Matrilocality
Banjar	10	100.00	0.00	0.00	Matrilocality
Betawi	10	70.00	20.00	10.00	Matrilocality
Bugis	9	77.78	11.11	11.11	Matrilocality
Sasak	9	0.00	100.00	0.00	Patrilocality
Madura	6	83.33	16.67	0.00	Matrilocality
Melayu	6	50.00	16.67	33.33	Matrilocality
Batak	4	25.00	75.00	0.00	Patrilocality
Bima	4	50.00	25.00	25.00	Matrilocality
Cirebon	2	100.00	0.00	0.00	Matrilocality
Makassar	2	100.00	0.00	0.00	Matrilocality
Nias	2	0.00	100.00	0.00	Patrilocality
Palembag	2	100.00	0.00	0.00	Matrilocality
South Sumatra	2	0.00	100.00	0.00	Patrilocality
Toraja	2	100.00	0.00	0.00	Matrilocality
Dayak	1	100.00	0.00	0.00	Matrilocality
Sumbawa	1	0.00	100.00	0.00	Patrilocality
Tionghoa	1	0.00	100.00	0.00	Patrilocality

Villages are grouped according to their dominant ethnic group. The table reports, for each ethnic group, the distribution of villages' traditional norms of post-marriage residence (matrilocal, patrilocal or ambilocal/neolocal). Traditional norms are drawn from the declaration of local *Adat* experts in the 1997 IFLS. We attribute a residence norm to each ethnic group, defined as the modal answer from this distribution.

.

Table A2: Traditional vs. Actual Matrilocality in Indonesia (2014)

	Presence of Spouse's Relatives in Household				
	Wife's Relatives	Husband's Relatives	Share of Wife's Relatives	Share of Husband's Relatives	Gap between Wife's and Husband's Relatives
	(1)	(2)	(3)	(4)	(5)
Matrilocality	0.0868***	-0.0439***	0.0284***	-0.0129**	0.0412***
	(0.0167)	(0.0160)	(0.00439)	(0.00530)	(0.00747)
Relative effect	84.3%	-22.2%	136.8%	-24.4%	-128.7%
Ind. Controls	Yes	Yes	Yes	Yes	Yes
Observations	5,880	5,880	5,880	5,880	5,880
R-squared	0.039	0.047	0.057	0.062	0.029
F-stat	26.98	7.55	41.81	5.90	30.43
Clusters	318	318	318	318	318

Linear estimations of contemporaneous co-residence practices on "matrilocality", i.e. a dummy indicating that a woman belongs to a traditionally matrilocal ethnic group. Dependant variables include dummies for the presence of at least one wife's relative in the household, for the presence of at least one husband's relative in the household, share of wife's relatives in the household, share of husband's relatives in the household. 'Gap between Wife's and Husband's Relatives' is the difference between the number of wife's relatives and the number of husband's relatives in the household, divided by the size of the household. All estimations control for women's characteristics: university gratuate, currently working, lives in a rural area, muslim, dummies for age category (by 5 years). Standard errors clustered at the village of origin level in brackets. Significance levels: * p<0.10, ** p<0.05, *** p<0.01.

Table A3: Descriptive Statistics of Control Variables (Stable Couples, 2007-14)

	2007			2014			Raw
	Matri.	Patri.	Diff.	Matri.	Patri.	Diff.	DD
Wife's Control Variables							
Age Category	4.856	4.891	-0.035	6.174	6.169	0.005	0.040
	(2.309)	(2.354)	(0.081)	(2.307)	(2.355)	(0.081)	(0.114)
University	0.066	0.065	0.001	0.078	0.079	-0.001	-0.002
	(0.248)	(0.246)	(0.009)	(0.268)	(0.270)	(0.009)	(0.013)
Work	0.594	0.686	-0.091***	0.667	0.741	-0.074***	0.017
	(0.491)	(0.465)	(0.017)	(0.471)	(0.438)	(0.017)	(0.023)
Rural	0.506	0.575	-0.069***	0.417	0.518	-0.101***	-0.031
	(0.500)	(0.495)	(0.017)	(0.493)	(0.500)	(0.017)	(0.024)
Muslim	0.969	0.540	0.429***	0.969	0.540	0.429***	0.000
	(0.172)	(0.499)	(0.009)	(0.172)	(0.499)	(0.009)	(0.013)
Husband's Control Variables							
Age Category	5.797	5.679	0.117	7.111	6.965	0.146	0.029
	(2.469)	(2.481)	(0.086)	(2.486)	(2.490)	(0.086)	(0.122)
University	0.073	0.097	-0.024**	0.082	0.109	-0.027***	-0.004
	(0.261)	(0.296)	(0.010)	(0.274)	(0.312)	(0.010)	(0.013)
Work	0.956	0.958	-0.001	0.921	0.930	-0.009	-0.008
	(0.204)	(0.202)	(0.008)	(0.270)	(0.255)	(0.008)	(0.012)
Rural	0.503	0.576	-0.073***	0.414	0.519	-0.104***	-0.031
	(0.500)	(0.494)	(0.017)	(0.493)	(0.500)	(0.017)	(0.024)
Muslim	0.968	0.537	0.431***	0.968	0.537	0.431***	0.000
	(0.177)	(0.499)	(0.009)	(0.177)	(0.499)	(0.009)	(0.013)
Number of observations	*4954*	*989*	*5943*	*4954*	*989*	*5943*	*11886*
Prop. Matri/Patri	*83.4%*	*16.6%*		*83.4%*	*16.6%*		
Additional Controls (Robustness Checks)							
Close District Capital	0.575	0.545	0.030	0.575	0.545	0.030	0.000
	(0.494)	(0.498)	(0.020)	(0.494)	(0.498)	(0.020)	(0.028)
Number of observations	*3568*	*727*	*4295*	*3568*	*727*	*4295*	*8590*
Javanese	0.565	0.000	0.565***	0.565	0.000	0.565***	0.000
	(0.496)	(0.000)	(0.016)	(0.496)	(0.000)	(0.016)	(0.022)
Number of observations	*4954*	*989*	*5943*	*4954*	*989*	*5943*	*11886*
Mixed Ethnicity	0.132	0.015	0.117***	0.132	0.015	0.117***	0.000
	(0.339)	(0.122)	(0.011)	(0.340)	(0.122)	(0.011)	(0.015)
Number of observations	*4954*	*989*	*5943*	*4954*	*989*	*5943*	*11886*

Statistics based on main DID sample in Table 3 (stable couples 2007-2014). Matri/patri: individual of ethnicities from matrilocal/patrilocal tradition. Diff.: time difference, Raw DD: absolute difference-in-difference (with ***, **, * indicating significance at 1%, 5%, 10% levels). Standard deviations are reported in brackets in columns 1, 2, 4 and 5. Standard errors are reported in brackets in columns 3, 6 and 7.

Table A4: Raw Difference-in-Differences of Outcome Variables (Stable Couples, 2007-14)

	2007			2014			**Raw**
	Matri.	Patri.	Diff.	Matri.	Patri.	Diff.	**DD**
Dep. Variables: Well-Being Measures							
Morbidity Symptoms	0.761	0.705	0.055***	0.843	0.839	0.004	-0.051***
	(0.427)	(0.456)	(0.014)	(0.363)	(0.368)	(0.014)	(0.020)
Number of Births	2.628	3.085	-0.457***	3.287	4.018	-0.731***	-0.274**
	(2.300)	(2.662)	(0.084)	(2.287)	(2.838)	(0.084)	(0.119)
Standard of Living	1.948	1.976	-0.028	2.052	1.929	0.123***	0.150***
	(0.531)	(0.592)	(0.021)	(0.656)	(0.656)	(0.021)	(0.030)
Food Consumption	2.010	2.026	-0.016	2.148	2.018	0.130***	0.146***
	(0.511)	(0.566)	(0.020)	(0.606)	(0.636)	(0.020)	(0.028)
Ch. Std. of Living	2.027	2.010	0.016	2.134	2.009	0.126***	0.109***
	(0.530)	(0.556)	(0.027)	(0.656)	(0.656)	(0.027)	(0.039)
Ch. Food Conso.	2.066	2.033	0.033	2.226	2.091	0.135***	0.102***
	(0.516)	(0.554)	(0.026)	(0.620)	(0.645)	(0.026)	(0.037)
Wife Assets	25,218	22,697	2,521	54,433	40,960	13,473***	10,952**
	(58,793)	(72,253)	(3,540)	(132,600)	(116,218)	(3,540)	(5,006)
Dep. Variables: Empowerment (Final Say)							
Contraception	0.191	0.191	0.000	0.342	0.220	0.122***	0.122***
	(0.393)	(0.393)	(0.016)	(0.474)	(0.415)	(0.016)	(0.022)
Large Expenditures	0.064	0.053	0.011	0.191	0.115	0.076***	0.064***
	(0.245)	(0.224)	(0.012)	(0.393)	(0.320)	(0.012)	(0.016)

Statistics based on main DID sample in Table 3 (stable couples 2007-2014). Matri/patri: individuals of ethnicities from matrilocal/patrilocal tradition. Diff.: time difference, Raw DD: absolute difference-in-difference (with ***, **, * indicating significance at 1%, 5%, 10% levels). Standard deviations are reported in brackets in columns 1, 2, 4 and 5. Standard errors are reported in brackets in columns 3, 6 and 7.

Appendix B. Cross-Sectional Estimations (Correlations)

Table B1: Villages' Post-Marriage Residence Norm and Divorce related *Adat* Traditional Norms

	Divorce settled in religious or civil courts		Husband takes all assets from before marriage		Husband takes all assets acquired during marriage		Young children live with the man or his parents	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Matrilocal Village	0.102		-0.043		-0.056**		-0.173***	
	(0.065)		(0.027)		(0.026)		(0.046)	
Patrilocal Village		-0.247***		0.064*		0.074**		0.252***
		(0.071)		(0.038)		(0.037)		(0.062)
Observations	247	247	249	249	249	249	249	249
R-squared	0.010	0.044	0.013	0.021	0.027	0.037	0.071	0.116

Village-level linear estimations of situations in case of divorce on either matrilocal or patrilocal traditional norm of post-marriage residence. If matrilocal=1 (patrilocal=1), 0 corresponds to patrilocal (matrilocal), neolocal and ambilocal. The norm is obtained from the *Adat* questionnaire (answers by *Adat* experts in each village) in 1997 IFLS data. Columns 1 & 2: if a divorce happens, the decision-making process used in the divorce is 1: religious/civil courts or 0: family discussion. Columns 3 & 4: if a divorce occurs, 1: the husband has the right to claim those assets that existed before marriage, 0 otherwise. Columns 5 & 6: if a divorce occurs, 1: the husband has the right to claim those assets obtained since the couple was married, 0 otherwise. Columns 7 & 8: after a divorce, young children go 1: with the husband or husband's parents, 0 otherwise. Robust standard errors in brackets. Significance levels: * p<0.10, ** p<0.05, *** p<0.01.

Table B2: Correlations between Matrilocality and Women's Well-Being and Empowerment (Stable Couples, 2007-14)

	Women's and Child's Well-Being							Women's Empowerment	
	Morbidity symptoms	Number of births	Standard of living	Food consumption	Children's std. of living	Children's food conso.	Wife's assets value	Contraception	Large expenditures
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Panel A: 2014								
Matrilocal	-0.00598	-0.900***	0.108***	0.119***	0.116***	0.118***	14,495***	0.129***	0.0663***
	(0.0164)	(0.154)	(0.0390)	(0.0353)	(0.0443)	(0.0422)	(5,033)	(0.0275)	(0.0185)
Observations	5,920	5,745	5,773	5,774	3,365	3,364	5,935	5,442	5,442
R-squared	0.018	0.201	0.075	0.078	0.072	0.093	0.080	0.027	0.022
Clusters	318	318	318	318	316	316	318	317	317
	Panel B: 2007								
Matrilocal	0.0880**	-0.640***	-0.0847	-0.0691	-0.0375	-0.0239	3,725*	-0.0301	0.0128
	(0.0348)	(0.114)	(0.0607)	(0.0538)	(0.0631)	(0.0580)	(2,156)	(0.0231)	(0.0125))
Observations	5,920	5,745	5,773	5,774	3,365	3,364	5,935	5,442	5,442
R-squared	0.018	0.409	0.048	0.045	0.049	0.047	0.111	0.018	0.007
Clusters	318	318	318	318	316	316	318	317	317
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Cross-sectional linear estimations of women's well-being and empowerment outcomes (defined in the footnote of Table 3) on a matrilocal dummy (indicating whether an individual belongs to a traditionally matrilocal ethnic group) as well as women's and women's spouse's characteristics (university graduate, currently working, living in rural areas, muslim and age group dummies using 5-year steps). Standard errors are reported in brackets and clustered at village of origin level. Significance levels: * p<0.10, ** p<0.05, *** p<0.01.

Table B3: Effect of Legal Reforms on Women's Well-Being and Empowerment (Pooled Cross-Sections)

	Women's and Child's Well-Being							Women's Empowerment	
	Morbidity symptoms	Number of births	Standard of living	Food consumption	Children's std. of living	Children's food conso.	Wife's assets value	Contraception	Large expenditures
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Post	0.212	3.255***	0.624	1.590***	-0.706	-0.121	107,716***	0.473	-0.0569
	(0.585)	(0.617)	(0.496)	(0.516)	(0.480)	(0.854)	(35,631)	(0.344)	(0.101)
Post × Matrilocal	-0.0809**	0.0605	0.203***	0.201***	0.189***	0.194***	6,514*	0.136***	0.0437***
	(0.0332)	(0.0973)	(0.0471)	(0.0474)	(0.0512)	(0.0462)	(3,571)	(0.0299)	(0.0125)
Relative effect	-11,.5%	1.8%	10.4%	10%	9.4%	9.5%	28.5%	76.8%	79.5%
Observations	18,243	17,929	17,930	17,932	12,253	12,249	18,271	17,189	17,189
R-squared	0.029	0.377	0.073	0.087	0.087	0.103	0.098	0.045	0.043
Clusters	319	319	319	319	319	319	319	319	319
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Post × Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Difference-in-difference estimations of well-being and empowerment indicators on a sample of couples surveyed in 2007 and couples surveyed in 2014 (pooled cross-sections). Post is equal to 1 for 2014 (post-reform) and 0 for 2007 (pre-reform). Matrilocal is a dummy indicating whether an individual belongs to a traditionally matrilocal ethnic group. Outcomes are defined in Table 3. All estimations include controls defined in Table 3 + a dummy indicating matrilocality, a dummy indicating muslim religion, a dummy indicating a spouse of muslim religion, as well as Post interacted with all these controls. We report relative effects that are calculated in % of mean outcome for patrilocal group in 2007 (pre-reform). Standard errors are reported in brackets and clustered at village of origin level. Significance levels: * p<0.10, ** p<0.05, *** p<0.01.

Appendix C. Placebo and Specification Checks

Table C1: Women's Divorce Probability: Placebo Estimations

Dep. Var.	Divorced	Divorced	Divorced	Divorced or Separated	Divorced	Divorced or Separated
Estimator	Diff-in-Diff				Simple Diff.	
Samples	Married before 2000	Excluding singles and widowed	Excluding singles & widowed, married before 2000	Married before 2000	Married in 2000	Married in 2000
	(1)	(2)	(3)	(4)	(5)	(6)
Post	0.0117	0.0253	0.00916	0.0271		
	(0.0101)	(0.0299)	(0.0180)	(0.0274)		
Post × Matrilocal	-0.00167	0.00589	-0.00180	-0.00763		
	(0.00483)	(0.00615)	(0.00546)	(0.00603)		
Matrilocal					0.00122	-0.00240
					(0.00454)	(0.00599)
Observations	10,772	13,790	9,524	10,772	7,147	7,147
R-squared	0.019	0.011	0.021	0.022	0.006	0.016
Clusters	320	320	320	320	320	320
Individual FE	Yes	Yes	Yes	Yes	No	No
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Post × Controls	Yes	Yes	Yes	Yes	No	No

Linear estimations of women's divorce status (dummy for divorced, or divorced/separated). We apply the difference-in-difference approach to a selection of women observed in both 2000 and 2007, who were married in 1997 (columns 1, 3 and 4); and a selection of women being married, divorced or separated in 2000 and 2007 (columns 2 and 3). For them, Post is equal to 1 for observations in 2007 and 0 in year 2000. We also estimate the potential increase in divorce using women observed in 2007 who were married in 2000 (columns 5 and 6). Matrilocal is a dummy indicating whether an individual belongs to a traditionally matrilocal ethnic group. Estimations include individual FE (absorbing Matrilocal and muslim - column 1-4), time-varying controls (women's characteristics: university graduate, currently working, living in rural areas and age group dummies using 5-year steps), + a muslim dummy in columns 5 and 6, and interactions between Post and controls (including Post interacted with a muslim dummy) in columns 1-4 as indicated. Standard errors are reported in brackets and clustered at village of origin level. Significance levels: * p<0.10, ** p<0.05, *** p<0.01.

Table C2: Well-Being and Empowerment (Stable Couples): Placebo Estimations

	Women's and Child's Well-Being							Women's Empowerment	
	Morbidity symptoms	Number of births	Standard of living	Food consumption	Children's std. of living	Children's food conso.	Wife's assets value	Contraception	Large expenditures
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Post	-0.215	5.367	2.023**	1.018**	-0.986*	-0.385	60,677	0.483	0.556*
	(0.293)	(3.301)	(0.833)	(0.514)	(0.592)	(0.631)	(42,050)	(0.381)	(0.333)
Post × Matrilocal	0.0396	-0.125	0.0704	0.0987	-0.00807	0.0601	2,353	0.00179	-0.0299*
	(0.0391)	(0.0807)	(0.0762)	(0.0717)	(0.0716)	(0.0708)	(3,027)	(0.0485)	(0.0174)
Observations	6,640	6,358	6,438	6,436	2,586	2,584	6,642	6,084	6,084
R-squared	0.038	0.375	0.063	0.077	0.075	0.061	0.178	0.047	0.025
Clusters	317	317	316	316	293	293	317	316	316
Household FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Post × Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Placebo difference-in-difference estimations of well-being and empowerment indicators on a sample of stable couples (2000-2014) surveyed in both 2000 and 2007. Post is equal to 1 for 2007 and 0 for 2000. Other variables are described in Table 3. Estimations include household FE (absorbing Muslim), basic controls, and control interactions with Post (including Post interacted with a musim dummy). Standard errors are reported in brackets and clustered at village of origin level. Significance levels: * p<0.10, ** p<0.05, *** p<0.01.

Table C3: Effect of Legal Reforms on Women's Well-Being and Empowerment: Robustness Checks

	Women's and Child's Well-Being							Women's Empowerment	
	Morbidity symptoms	Number of births	Standard of living	Food consumption	Children's std. of living	Children's food conso.	Wife's assets value	Contraception	Large expenditures
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Baseline									
Rel. effect (%)	-12.6***	-7.6**	9.7***	9.3***	7.6***	6.9***	47.1**	85.3***	103.6***
Observations	11,840	11,490	11,546	11,548	6,730	6,728	11,870	10,884	10,884
No Post* × *Controls									
Rel. effect (%)	-7.0*	-8.2***	7.9***	7.3***	5.7***	5.2**	47.2**	65.4***	118.7***
Observations	11,840	11,490	11,546	11,548	6,730	6,728	11,870	10,884	10,884
No Post* × *Rural									
Rel. effect (%)	-12.7***	-7.6**	9.8***	9.5***	7.7***	7.2***	49.1**	86.4***	109.4***
Observations	11,840	11,490	11,546	11,548	6,730	6,728	11,870	10,884	10,884
No Post* × *Muslim									
Rel. effect (%)	-6.6	-8.6***	7.6***	6.9***	5.5**	4.3**	48.8**	66.0***	111.9***
Observations	11,840	11,490	11,546	11,548	6,730	6,728	11,870	10,884	10,884
Controlling for Post* × *Javanese									
Rel. effect (%)	-13.4***	-6.5**	9.7***	9.3***	7.4**	6.7**	73.4***	72.8***	120.0***
Observations	11,840	11,490	11,546	11,548	6,730	6,728	11,870	10,884	10,884
Sample excluding Javanese									
Rel. effect (%)	-16.5***	-6.8**	10.7***	10.2***	7.7**	7.7***	69.0**	83.2***	122.8***
Observations	6,252	6,062	6,088	6,094	3,778	3,776	6,276	5,766	5,766
Controlling for Post* × *Mixed Ethnicity									
Rel. effect (%)	-12.4***	-7.7**	9.5***	9.1***	7.0***	6.3**	44.1*	83.2***	99.6***
Observations	11,840	11,490	11,546	11,548	6,730	6,728	11,870	10,884	10,884

Difference-in-difference estimations of well-being and empowerment indicators on a sample of stable couples surveyed in both 2007 and 2014. Outcomes are defined in Table 3. All estimations include household FE (absorbing matrilocal and muslim) and controls defined in Table 3. ***Baseline*** is our main specification in Table 3. In ***No Post* × *Controls*** we do not control for Post interacted with time varying controls anymore. In ***No Post* × *Rural*** we do not control for Post interacted with 'rural' dummy anymore. In ***No Post* × *Muslim*** we do not control for Post interacted with 'muslim' dummy anymore. In ***Controlling for Post* × *Javanese*** we additionally control for Post interacted with 'javanese', a dummy indicating an individual of javanese ethnicity. In ***Sample excluding Javanese*** we exclude javanese individuals from our main sample. In ***Controlling for Post* × *Mixed Ethnicity*** we additionally control for Post interacted with 'mixed ethnicity', a dummy indicating a couple with spouses of different ethnicities. We report relative effects that are calculated in % of mean outcome for patrilocal group in 2007 (pre-reform). Standard errors are reported in brackets and clustered at village of origin level. * p<0.10, ** p<0.05, *** p<0.01.

Table C4: Effect on Empowerment: Alternative Definitions based on Final Say Answers

Dep. Var.	Contraception				Large expenditures			
Specification	Husband respondant (baseline)	Wife decides alone	Wife respondant	Wife respondant & decides alone	Husband respondant (baseline)	Wife decides alone	Wife respondant	Wife respondant & decides alone
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Post × Matrilocal	0.163***	0.163***	0.0956***	0.0953***	0.0549***	0.0558***	0.0373**	0.0401**
	(0.0333)	(0.0333)	(0.0263)	(0.0263)	(0.0159)	(0.0159)	(0.0183)	(0.0187)
Relative effect	85.3%	85.3%	64.2%	64.4%	103.6%	105.3%	69.1%	74.3%
Observations	10,884	10,884	11,384	11,384	10,884	10,884	11,384	11,384
R-squared	0.065	0.065	0.091	0.091	0.088	0.090	0.108	0.110
Clusters	317	317	318	318	317	317	318	318
Household FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Post × Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Difference-in-difference estimations of empowerment on a sample of stable couples surveyed in both 2007 and 2014. Post is equal to 1 for 2014 (post-reform) and 0 for 2007 (pre-reform). Other variables are defined in Table 3. Estimations include household FE (absorbing matrilocal and muslim), basic controls, all controls interacted with Post (including post interacted with a muslim dummy). The baseline definition of empowerment outcomes relies on the husband's answer and gives a value 1 if the wife and/or her relatives present in the household have the say (while the husband does not have any say). Alternative definitions use the wife's answer or defined empowerment as her making the decision alone. Standard errors are reported in brackets and clustered at village of origin level. Significance levels: * p<0.10, ** p<0.05, *** p<0.01.

Appendix D. Proofs of Propositions 1 and 2

We study the expected bargaining power and the probability of divorce of matrilocal and patrilocal women. To solve the model, we follow the algorithm in Voena (2015). At each period t, the spouses maximize the following value function:[18]

$$V_t(\omega_t) = \gamma_t^{Hh}[u^{Hh}(c_t^{Hh}, Q_t^h) + \chi_t^{Hh}] + \gamma_t^{Wh}[u^{Wh}(c_t^{Wh}, Q_t^h) + \chi_t^{Wh}] + \beta E[V_{t+1}(\omega_{t+1})]$$
$$\text{s.t.}$$
$$A_{t+1}^h - (1+r_t)A_t^h + c_t^{Hh} + x_t^{Hh} + c_t^{Wh} + x_t^{Wh} \leq y_t^{Hh} + y_t^{Wh}$$

Once the within-marriage allocation is established, we can define $V_{married,t}^{jh}(\omega_t) = u(c_t^{*j}; \chi_t^{jh})$. Then, the following algorithm applies:

1. if $V_{married,t}^{jh}(\omega_t) \geq V_{divorced,t}^{jh}(\omega_t)$ for both $j = H, W$, then $V_{t+1}^{jh}(\omega_t) = V_{married,t}^{jh}(\omega_t)$ and the couple remains married.

2. if $V_{married,t}^{jh}(\omega_t) < V_{divorced,t}^{jh}(\omega_t)$ for both $j = H, W$, then $V_{t+1}^{jh}(\omega_t) = V_{divorced,t}^{jh}(\omega_t)$ and the couple divorces.

3. $V_{married,t}^{jh}(\omega_t) < V_{divorced,t}^{jh}(\omega_t)$ and $V_{married,t}^{ih}(\omega_t) \geq V_{divorced,t}^{ih}(\omega_t)$ for $j = H, W$, $i = H, W$ and $i! = j$.

In case 3, the allocation shifts. A new marriage allocation is determined through the maximisation of the value function as defined above but with renegotiated bargaining weights $\gamma_t^{jh} + \mu_t^{jh}$. The μs are such that j stays in marriage, i.e. they are defined as Lagrangian multipliers of the binding version of the participation constraint $V_{married,t}^{jh}(\omega_t) \geq V_{divorced,t}^{jh}(\omega_t)$, and that the value of marriage for i is high enough after renegotiation. If no such changes in bargaining weights can be found, the couple divorces.

Divorce occurs for two main reasons. First, one of the two spouses has a negative preference shock for marriage, so that no internal allocation allows her/him to stay without making the other spouse too worse off. Second, one of the spouses get an income shock so bad that the other spouse, given his/her tastes for marriage, does not find optimal to stay in marriage anymore. Renegotiation of the Pareto weights occur for very similar reasons, with the exception that they could be driven also by spouses' positive income shocks. Renegotiations occur in case 3 above when there exist feasible allocations within marriage that allow the spouse who would like to divorce to gain power without making the other spouse unwilling to stay.

Divorce. We study the wife's incentives to divorce in terms of her and her husband's marriage preferences and their income at time t. For each combination of $\{y_t^{Wh}, \chi_t^{Wh}\}$, we can define

[18] The model is solved backward. In the final period T, the asset constraint is the following: $A_{T+1} \geq 0$

a husband's resource level $\overline{y}_t^{Hh}$ that makes the wife indifferent between staying and leaving. This level is independent of the state realisation of the bargaining power, as redistribution may occur as soon as divorce is preferable for at least one spouse.

Also, this $\overline{y}_t^{Hh}$ corresponds to a minimum level of wife's resources share, associated with the Pareto weight level $\tau_t = \overline{\gamma}_t^{Wh} + \overline{\mu}_t^{Wh}$, that she needs to reach not to divorce. If $\gamma_t^{Wh} + \mu_t^{Wh} \geq \tau_t$, the wife accepts to stay married. Whether this bargaining weight is feasible depends on the above mentioned parameters plus the husband preference parameters χ_t^{Hh}. So for each combination of state variables $\{y_t^{Wh}, y_t^{Hh}, \chi_t^{Hh}\}$, we can define a minimum level of taste for marriage of the wife $\overline{\chi}_{divorced,t}^{Wh}$ below which divorce occurs.

We want to compare the probability of divorce and the expected bargaining power of matrilocal and patrilocal women. Since the utility functions of the two types of women are assumed to be the same, both women have the same taste for marriage threshold $\overline{\chi}_{divorced,t}^{Wh}$, below which they divorce. We then have to compare $P(\chi_t^{WM} < \overline{\chi}_{divorced,t}^{WM} | \Omega_t)$ to $P(\chi_t^{WP} < \overline{\chi}_{divorced,t}^{WP} | \Omega_t)$. All the stochastic variables follow a random walk process. The income variables have the same expected value and variance in both groups. The preference parameter of the husband has the same distribution in both groups. What differs between group is the distribution of the wife marriage parameter. In particular, at time t we have that $\chi_t^{WM} \sim N(\chi_0^{WM}, t\sigma^2)$ and $\chi_t^{WP} \sim N(\chi_0^{WP}, t\sigma^2)$. To know who has the higher probability of divorce we compare the CDF of the two distribution. Since $\chi_0^{WM} < \chi_0^{WP}$, it follows that $\Phi_t^{WM} > \Phi_t^{WP}$ and matrilocal women are expected to divorce more frequently in every period t. This leads to prediction 1.

Bargaining power. Similarly, we can study the evolution of bargaining power when the couple stay married. Given a starting bargaining power γ_0, renegotiations will occur each time the existing bargaining power does not provide enough resources in marriage as compared to divorce. From the wife's point of view, for every γ_t^{Wh} we can define a minimum level of taste for marriage, $\overline{\chi}_{renegotiation,t}^{Wh}$, given $\{y_t^{Wh}, y_t^{Hh}\}$, below which renegotiation occurs. Given the distribution of χ_t^{Wh} for matrilocal and patrilocal women $h = M, P$, renegotiation takes place more often for matrilocal couples. Starting from γ_0, the bargaining power of matrilocal women will thus increase more often than for patrilocal ones.

However, this will in turn make the husbands of matrilocal women also willing to renegotiate more, whenever their divorce constraint binds. Then, in the two groups, we can compute at every t the probability that a woman accepts the husband's renegotiation. For every realisation of $\chi_t^{Hh} < \overline{\chi}_{renegotiation,t}^{Hh}$, i.e. the husband threshold for renegotiation given $\{y_t^{Wh}, y_t^{Hh}\}$, the couple will stay married if $\chi_t^{Wh} > \overline{\chi}_{divorce,t}^{Wh}$. This will happen more often for patrilocal women than matrilocal women, implying that patrilocal women will accept a deterioration of they bargaining power, while matrilocal women will divorce. So, in expectation, the matrilocal women selected into marriage are those with a higher bargainig power. This yields prediction 2.

GREThA UMR CNRS 5113
Université de Bordeaux
Avenue Léon Duguit
33608 Pessac – France
Tel : +33 (0)5.56.84.25.75
http://gretha.u-bordeaux.fr/

LAREFI
Université de Bordeaux
Avenue Léon Duguit
33608 Pessac – France
Tel : +33 (0)5.56.84.25.37
http://larefi.u-bordeaux.fr/

Derniers numéros – Last issues

- 2020-13 **Climate warming vs ecological competition for marine tropical biodiversity and fisheries**
  by Hélène GOMES, Coralie KERSULEC, Luc DOYEN, Fabian BLANCHARD, Abdoul CISSE, Nicolas SANZ
- 2020-12 **Peugeot en Gironde en juin 1940. La guerre économique en 40 comme en 14 ?**
  by Hubert BONIN
- 2020-11 **Ecological-economic resilience of a fished coral reef through stochastic multi-species**
  by Adrien LAGARDE, Luc DOYEN, Joachim CLAUDET, Olivier THEBAUD
- 2020-10 **Non-practicing entities and transparency in patent ownership in Europe**
  by Valerio STERZI, Jean-Paul RAMESHKOUMAR, Johannes VAN DER POL
- 2020-09 **Ressources naturelles et guerres civiles au Moyen-Orient**
  by Mahdi FAWAZ
- 2020-08 **Poverty and COVID-19 in Developing Countries**
  by Olivier BARGAIN, Ulugbek AMINJONOV
- 2020-07 **La France en guerre économique au printemps 2020 comme à l'automne 1914**
  by Hubert BONIN
- 2020-06 **Trust and Compliance to Public Health Policies in Times of COVID-19**
  by Olivier BARGAIN & Ulugbek AMINJONOV
- 2020-05 **Covid-19 and fine wines: the 'perfect blend' for a severe headache?**
  by Jean-Marie CARDEBAT & Philippe MASSET & Jean-Philippe WEISSKOPF
- 2020-04 **When choosing is painful: anticipated regret and psychological opportunity cost**
  by Emmanuelle GABILLON

Ion LAPTEACRU and Ernest MIGUELEZ are the scientific coordinators of the Bordeaux Economics Working Papers. The layout and distribution are provided by Cyril MESMER and Julie VISSAGUET.

GREThA and LAREFI joint Working Paper series