Rev Econ Household
https://doi.org/10.1007/s11150-025-09818-w

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Domestic violence and marriage: evidence from legal reforms worldwide

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Received: 24 January 2025 / Accepted: 24 October 2025
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Abstract
We provide empirical evidence on the impact of domestic violence on marriage decisions. Analyzing anti-domestic violence legislation implemented worldwide between 1990 and 2023, we find that such laws lead to a significant increase in marriage rates, particularly in countries with strong rule of law. Our results further indicate that the effect is more pronounced where the legislation introduces civil protection orders and where women face greater risks of domestic violence. We also observe a substantial rise in divorce rates following the adoption of anti-domestic violence laws. Overall, our findings suggest that such legislation can enhance women's willingness to enter into marriage by (1) reducing their risk of experiencing domestic violence and (2) lowering the costs associated with exiting a marriage.

Keywords Domestic violence · Marriage · Anti-domestic violence law

JEL Classification J12 · J47 · J48 · K23 · K42

1 Introduction

Domestic violence is a common phenomenon. Globally, approximately 30% of women have been subjected to domestic violence in their lifetime, and intimate partners account for about 38% of all female homicides (World Health Organization, 2021). This is not confined to low-income settings: Across OECD countries, about 22% of women report lifetime physical or sexual domestic violence (OECD, 2024). While prior research has explored various direct consequences of domestic violence, the extent to which it deters women from choosing marriage remains insufficiently examined. The aim of this paper is to bridge this gap by providing the empirical

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Published online: 10 November 2025

evidence of the impacts of domestic violence on marriage decisions in a broad cross-country setting.

Our study utilizes the staggered implementation of anti-domestic violence legislation worldwide from 1990 to 2023. This legislation is primarily designed to safeguard individuals (especially women) from abuse within intimate relationships, providing legal frameworks that include criminal sanctions and civil protection orders. We expect such legislation to increase marriage rates through the following two mechanisms. First, it reduces women's risk of domestic violence, thereby enhancing safety and well-being within marital relationships and increasing the perceived benefits of marriage. Second, it empowers women to cite domestic violence as legitimate grounds for divorce, thus lowering the costs and barriers to exit; this, in turn, makes women more willing to enter into marriage initially.

Following Imbens & Wooldridge (2009), we implement a difference-in-differences (DiD) design with multiple groups and periods. We find that, while anti-domestic violence legislation has no significant impact on marriage rates in countries with weak rule of law, it leads to a significant increase in marriage rates in countries with strong rule of law. Specifically, in strong rule of law countries, the introduction of anti-domestic violence legislation raises marriage rates by about 0.515 marriages per 1000 population—an 8.89% increase relative to the sample mean—compared with control countries. Further, our strong rule of law results are robust across alternative rule of law measures and reflect broad institutional capacity rather than any single institutional channel.

We also find that the marriage effects of anti-domestic violence laws are primarily driven by civil-only regimes, whose prevention-first civil protection orders more effectively safeguard women's safety within marriage. Additionally, the treatment effect is more pronounced in countries with a higher prevalence of domestic violence against women. These findings support the notion that one mechnism through which anti-domestic violence laws promote marriage is by reducing the threat of domestic violence faced by women.

Next, we show that a country's divorce rate increases significantly following adoption of anti-domestic violence legislation. This is consistent with our conjecture that another mechanism for anti-domestic violence laws to increase marriage is by making divorce more accessible.

Our paper makes at least two contributions. First, we contribute to the economic literature on the determinants of marriage. This literature suggests that two individuals marry when their union yields a positive surplus relative to remaining single. Marriage offers various benefits, such as synergies from specialization in home and market production, risk sharing, utility from adhering to social customs, commitment to induce relationship-specific investment, and the signaling of true love (e.g., Becker, 1973, 1974; Brinig & Crafton, 1994; Cohen, 2002; Matouschek & Rasul, 2008). Complementing this literature, we provide empirical evidence that domestic violence acts as a deterrent to women's marriage decisions. Closest to our work, Anderberg et al. (2023) theoretically and empirically show that the threat of domestic violence influences women's fertility, divorce, and labor supply decisions. Our paper extends this insight by showing—in a global sample of countries—that domestic violence risk also plays a significant role in deterring women from marrying in the first place.

Second, the growing attention to anti-domestic violence legislation worldwide reflects a broader recognition of the urgency and importance of addressing domestic violence (Hallward-Driemeier et al., 2013; World Bank, 2015; World Health Organization, 2021). Most studies of such laws focus on the first stage—changes in domestic violence prevalence (Nguyen & Le, 2022; Richardson et al., 2025)[1]—while others document reductions in severe downstream harms (e.g., suicide, mortality) following legal reforms (Beleche, 2019; Amin et al., 2021) and improvements in women's welfare (Gu et al., 2022). We contribute a global, harmonized analysis of the marriage-formation margin, showing that anti-domestic violence laws increase marriage formation. Moreover, our cross-country results synthesize country-specific findings by showing that impacts concentrate where enforcement is credible and protections are effective, providing a mechanism-based reconciliation of mixed single-country estimates. Given the welfare significance of marriage (Friedman, 2000), these results inform how legal design and institutional quality shape policy effectiveness.

2 Background on anti-domestic violence law

Throughout history, women have been perceived as weaker than men due to societal norms and institutional oppressions. The traditional English common-law doctrine of coverture, dating back to the 16th century, prescribed a woman's subordinate status during marriage: A wife lacked legal autonomy because her being was completely incorporated into that of her husband.

Until the 1990s, most countries offered little legal protection against domestic violence. A significant shift occurred in 1993 with the United Nations' Declaration on the Elimination of Violence Against Women (DEVAW), which recognized domestic violence as a human rights violation and called for state responsibility to prevent and address it. Although not legally binding, DEVAW has shaped national laws and policies worldwide, promoting legal reforms, victim support, public awareness, and cooperation to end violence against women.

In recent decades, demand has grown to end legal impunity for domestic violence, previously seen as a private matter. A major response is the Istanbul Convention, adopted in 2011 and enacted in 2014, which is the first European treaty focused on preventing and addressing gender-based violence. Ratified by 34 Council of Europe states and signed by 12 more plus the EU, it has significantly shaped domestic violence laws and policies across the region.

International conventions like DEVAW and the Istanbul Convention, alongside greater women's empowerment, have driven a global surge in anti-domestic violence legislation (see, e.g., Hallward-Driemeier et al., 2013; World Bank, 2015). While only Hong Kong, Ireland, and Singapore had such laws before 1990, by 2022, 160 out of 190 economies had enacted anti-domestic violence legislation.

[1] Nguyen & Le (2022) link DHS DV modules to World Bank WBL legal data for 54 developing countries (1990–2019) and report declines in domestic violence after reforms, whereas Richardson et al. (2025), using a different sample (16 countries, 2000–2021), reach the opposite conclusion—underscoring heterogeneity across settings and measurement choices.

Anti-domestic violence laws play a crucial role in explicitly defining the scope of domestic violence, encompassing not only physical abuse but often also a broader range that includes emotional, psychological, economic, and sexual abuse. Within these laws, there are two primary legal vehicles to protect women: civil protection orders and criminal sanctions. Protection orders, often issued, prevent the accused from contacting or approaching the victim, with violations typically resulting in immediate arrest. Additionally, many jurisdictions provide criminal sanctions specific to domestic violence, either through distinct domestic violence offense or explicit sentencing aggravators. The extent of these penalties varies by jurisdiction, the severity of the offense, and any history of repeated violations. Approaches differ globally, reflecting each country's legal system and cultural context. As shown in Sections 4 and 5, anti-domestic violence laws are most effective in countries with strong rule of law and in civil-only regimes.

3 Sample construction

We obtain country-level marriage and divorce data from 1990 to 2023 through the UN Demographic Yearbook, complied by the United Nations Statistics Division (UNSD). For anti-domestic violence legislation data, we rely on the World Bank's Women, Business and the Law (WBL) database.[2] We start with the 136 countries with marriage data from UNSD and retain both adopters and never-treated countries.[3] We exclude countries already treated at the start of the sample (e.g., Hong Kong, Ireland, Singapore) because they provide no within-sample variation in treatment status and thus do not identify DiD effects in staggered-adoption settings. After applying these criteria, 123 countries remain in our final sample, including 105 adopters of anti-domestic violence laws and 18 never-treated countries.

Table 1 Panel A shows our sample countries. We divide them equally into the group with strong rule of law (61 countries) and the group with weak rule of law (62 countries), based on the median value of World Bank rule of law index in 1996, the earliest year for which this index is available.[4] Our full sample consists of 4182 country-year observations from 1990 to 2023. The balance of the panel is influenced by the availability of marriage data, as some countries lack coverage in certain years in the UNSD dataset. As a result, 3678 observations have non-missing marriage rate data. To illustrate the panel's balance, we report in parentheses the total number of

[2] According to WBL's definition, anti-domestic violence legislation is characterized by specific laws that directly target domestic violence, including provisions for criminal sanctions and protection orders. Absence of legislation is defined as when no laws address domestic violence, or if the laws lack sanctions or protection orders, or if they only safeguard particular groups of women or family members.

[3] For adopters, we require marriage data covering the year of first adoption of a national anti-domestic-violence law to align event time; this requirement does not apply to never-treated countries, which remain in the panel throughout the sample period.

[4] Rule of law captures perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence (see Kaufmann et al., 2011). The estimate gives the country's score on the aggregate indicator in units of a standard normal distribution, i.e., ranging from approximately -2.5 to 2.5.

Table 1 Summary Statistics

Panel A. Adoption of Anti-domestic Violence Laws		
Policy Year	Country Name	
	Strong Rule of Law	Weak Rule of Law
Countries that Have Adopted Anti-domestic Violence Laws		
1991	CAN (21), PRI (34)	
1992	ISR (34)	
1993	BRB (34), TTO (29), BHS (30)	
1994		BLZ (16)
1995	USA (32)	PER (33)
1996	CYP (34), PRT (34), LCA (30)	ARG (34)
1997	CRI (34), NZL (34), ESP (34), VCT (34), URY (34)	BOL (27), ECU (34), JAM (31)
1998	AUT (34), GBR (31)	DOM (34), SLV (31), GTM (34)
1999	KOR (34), MUS (34), POL (34)	
2000	ATG (18), FIN (34)	VEN (32)
2001	BRN (34), SYC (34)	ZAF (34)
2002	JPN (34)	PRY (32)
2003	DMA (29), DEU (34), GRD (19)	PAN (34)
2004	BEL (34)	KGZ (34), ROU (34)

Table 1 continued

Panel A. Adoption of Anti-domestic Violence Laws

Policy Year	Country Name	
	Strong Rule of Law	Weak Rule of Law
2005	CPV (28), LUX (34)	PHL (34), HRV (34)
2006		BIH (30), BGR (34)
2007	CHL (34), CZE (34), FRA (33), MLT (34), SVK (34), LKA (34)	CHN (25), GEO (33), SRB (24), TUR (34)
2008	GRC (34), CHE (34)	ALB (33), BRA (34), MEX (34)
2009	BWA (26), SVN (34), THA (26), SMR (34), JOR (34)	MDA (34), NIC (30), VNM (19)
2010	AUS (34), NOR (34)	SUR (34), UKR (34)
2011	FJI (20), HUN (34)	KAZ (34)
2012		AZE (34), BGD (26), MNE (24)
2013	DNK (34), ISL (32), LTU (34)	MDV (28)
2014	WSM (33)	TJK (32)
2015	ITA (34)	BLR (34), SAU (20)
2016	NLD (34)	LVA (34), MKD (34)
2017		DZA (34), BHR (34)
2018	MNG (32)	
2019		ARM (34), TUN (34), DJI (15)

Table 1 continued

Panel A. Adoption of Anti-domestic Violence Laws		
Policy Year	Country Name	
	Strong Rule of Law	Weak Rule of Law
2020	ARE (32)	SWZ (7)
2021	KMT (34)	
2022		EGY (34)
Countries that Have not Adopted Anti-domestic Violence Laws by the End of 2023		
EST (34), LIE (32), OMN (17), MCO (26)		SDN (8), TKM (5), GIN (8), YEM (6), QAT (34), IRN (34), SYR (23), IRQ (15), NER (6), RUS (26), LBY (28), UZB (32), CUB (34), LSO (17)

Panel B: Global Coverage						
Strong Rule of Law Sample						
	Africa	Asia	Europe	North America	South America	Oceania
Country List	BWA, CPV, MUS, SYC	BRN, CYP, ISR, JPN, JOR, KWT, MNG, OMN, KOR, LKA, THA, ARE	AUT, BEL, CZE, DNK, EST, FIN, FRA, DEU, GRC, HUN, ISL, LTA, MLT, MCO, NLD, NOR, POL, PRT, SMR, SVK, SVN, ESP, CHE, GBR, LIE, LTU, LUX	ATG, BHS, BRB, CAN, CRI, DMA, GRD, PRI, LCA, VCT, TTO, USA	CHL, URY	AUS, FJI, NZL, WSM
Area Coverage	2.57%	9.82%	17.19%	72.89%	5.16%	93.55%
Population Coverage	3.00%	6.87%	64.43%	64.72%	5.25%	71.63%

Table 1 continued

Panel B: Global Coverage						
Strong Rule of Law Sample						
	Africa	Asia	Europe	North America	South America	Oceania
Weak Rule of Law Sample						
	Africa	**Asia**	**Europe**	**North America**	**South America**	**Oceania**
Country List	DZA, DJI, EGY, SWZ, GIN, LSO, LBY, NER, ZAF, SDN, TUN	ARM, AZE, BHR, BGD, CHN, GEO, IRN, IRQ, KAZ, KGZ, MDV, PHL, QAT, SAU, SYR, TJK, TUR, TKM, UZB, VNM, YEM	ALB, BLR, BIH, BGR, HRV, MDA, MNE, MKD, ROU, RUS, SRB, UKR, LVA	BLZ, CUB, DOM, SLV, GTM, JAM, MEX, NIC, PAN	ARG, BOL, BRA, ECU, PRY, PER, SUR, VEN	
Area Coverage	34.11%	63.37%	80.77%	9.92%	84.92%	0.00%
Population Coverage	23.03%	47.95%	32.56%	31.99%	81.20%	0.00%

Panel C. Summary Statistics						
Variable	N	Mean	Std. Deviation	P25	Median	P75
Strong Rule of Law Sample (1990)						
Marriage rate	53	6.81	2.02	5.60	6.70	7.60
Divorce rate	48	1.69	1.03	0.80	1.40	2.40
GDP per capita	61	13.53	14.25	2.78	8.65	21.59
Urban share	61	64.44	20.93	50.00	71.23	79.37
Population growth	61	0.97	1.42	0.30	0.78	1.38
Unemployment rate	61	7.68	5.49	3.85	6.36	10.56
Civil Liberty	61	2.23	1.54	1	2	3

Table 1 continued

Panel C. Summary Statistics						
Variable	N	Mean	Std. Deviation	P25	Median	P75
Unilateral divorce	61	0.54	0.50	0	1	1
Weak Rule of Law Sample (1990)						
Marriage rate	44	7.35	2.79	5.45	7.50	9.10
Divorce rate	39	1.50	1.30	0.60	1.10	1.85
GDP per capita	62	2.27	2.91	0.78	1.36	2.45
Urban share	62	52.67	18.73	41.99	53.15	66.76
Population growth	62	1.92	1.35	0.93	2.10	2.71
Unemployment rate	62	7.63	7.09	1.84	6.32	11.21
Civil Liberty	62	4.37	1.38	3	4	5
Unilateral divorce	62	0.24	0.43	0	0	0
Strong Rule of Law Sample (2023)						
Marriage rate	46	4.54	1.92	3.50	4.00	5.00
Divorce rate	40	1.74	0.66	1.50	1.73	1.90
GDP per capita	61	38.34	29.13	17.88	32.96	52.93
Urban share	61	72.04	22.37	59.53	79.15	88.01
Population growth	61	0.93	1.38	0.01	0.51	1.37
Unemployment rate	61	6.20	4.12	3.60	5.26	7.33
Civil Liberty	61	1.80	1.30	1	1	2
Unilateral divorce	61	0.82	0.39	1	1	1
Weak Rule of Law Sample (2023)						
Marriage rate	46	5.33	2.59	3.70	5.10	6.30
Divorce rate	43	1.77	1.28	1.10	1.40	2.10

Table 1 continued

Panel C. Summary Statistics						
Variable	N	Mean	Std. Deviation	P25	Median	P75
GDP per capita	62	10.28	12.21	3.80	6.98	12.53
Urban share	62	62.17	18.16	50.27	64.15	76.70
Population growth	62	0.85	1.32	0.06	0.88	1.46
Unemployment rate	62	7.97	6.51	4.01	5.61	10.67
Civil Liberty	62	4.39	1.72	3	4	6
Unilateral divorce	62	0.71	0.46	0	1	1

Our full sample consists of 123 countries from 1990 to 2023, with 61 countries classified as having strong rule of law and 62 as weak rule of law, based on each country's earliest available rule of law index from World Bank. Panel A lists all sample countries using ISO 3-alpha codes. The number in parentheses next to each country indicates the total number of non-missing observations on marriage rates available for that country over the sample period. Panel B summarizes the global coverage of the sample by continent. For both the strong and weak rule of law subsamples, we report the country list represented in each continent, as well as coverage ratios. *Area Coverage* refers to the share of a continent's total land area covered by the sample, while *Population Coverage* refers to the share of total population represented. Panel C summarizes the country-level statistics for strong and weak rule of law subsamples in year 1990 and year 2023

years with available marriage data for each country. Given the 34-year sample period, over half of the countries have complete marriage data for the entire period, and more than 90% have data for at least half of the years.

Table 1 Panel B shows the global coverage of our sample. The full sample spans all six inhabited continents, with five of them having more than 50% country coverage (either % in land area or population). The exception is Africa, where only about 30% of countries are included due to widespread gaps in marriage statistics. Coverage is especially strong in Europe, North and South America, and Oceania, where over 90% of countries are represented. The strong rule of law subsample continues to include countries from all six continents, though its representativeness is somewhat reduced. Specifically, it covers approximately 3% of Africa, 10% of Asia, 17% of Europe, 73% of North America, 5% of South America, and 94% of Oceania in terms of land area; and 3% of Africa, 7% of Asia, 64% of Europe, 65% of North America, 5% of South America, and 72% of Oceania in terms of population. This lower representation in some regions reflects the fact that many countries with large land areas or populations tend to have weaker legal institutions and are thus more likely to fall into the weak rule of law group.

Country characteristics, such as GDP per capita, urban share (proportion of urban population relative to total population), population growth, unemployment rate (share of the labor force that is without work but available for and seeking employment) are obtained from the World Bank's national accounts data. Civil liberty status is obtained from Freedom House, which has been updated annually for more than 210 countries and territories over the world since 1973.[5] The status of unilateral divorce legislation is compiled from primary statutes, official gazettes, and reputable legal repositories.[6]

Table 1 Panel C reports country-level summary statistics for the strong and weak rule of law subsamples in 1990 and 2023. In 1990 (strong rule of law sample), the average country records 6.81 marriages and 1.69 divorces per 1000 population; GDP per capita of 13.53 thousand USD, an urban share of 64.44%, population growth of 0.97%, unemployment of 7.68%, and civil liberty score of 2.23. About half had adopted unilateral divorce legislations. In 1990 (weak rule of law sample), countries exhibit higher marriage and lower divorce rates, much lower GDP per capita, smaller urban shares, weaker civil liberty (higher scores indicate less freedom), higher population growth, similar unemployment, and a lower prevalence of unilateral divorce adoption. By 2023, both subsamples show a substantial decline in marriage rates, a modest rise in divorce rates, and large increases in GDP per capita,

[5] A country's civil liberty status in a year is measured on a one-to-seven scale, with one representing the highest degree of freedom and seven the lowest. Specifically, it is scored according to the four groups of questions: freedom of expression and belief, associational and organizational rights, rule of law, and personal autonomy and individual rights. The detailed methodology can be found at https://freedomhouse.org/reports/freedom-world/freedom-world-research-methodology.

[6] A country is classified as adopting unilateral divorce legislation in the first year a symmetric unilateral/no-fault regime comes into force—i.e., either spouse can obtain divorce without proving fault. For adopters, we record the effective year, law title, and URL in Internet Appendix Table IA5. If divorce remains asymmetrical, mutual-consent-only, or fault-based, the country is classified as not adopting unilateral divorce legislation; we document the prevailing framework in Internet Appendix Table IA5. Among our full sample of 123 countries, 93 are coded as ever adopted and 30 are coded as no adoption.

urbanization, and adoption of unilateral-divorce laws. In the strong rule of law sample, population growth is roughly flat, and unemployment declines. In the weak rule of law sample, population growth falls, while unemployment and civil liberty score change little.

4 Effect of anti-domestic violence laws on marriage

4.1 Baseline regression

Following Imbens & Wooldridge (2009), we implement a difference-in-differences (DiD) design with multiple treatment groups and time periods:

$$\begin{aligned} Marriage\ rate_{i,t} = \alpha + \beta_1 AntiDV_{i,t} + \beta_2 Country\ characteristics_{i,t} + Year\ FE \\ + Country\ FE + \varepsilon_{i,t} \end{aligned} \tag{1}$$

The dependent variable measures the number of marriages per 1000 population recorded at the national level in a given year. Treatment is an absorbing indicator: for country i, $AntiDV_{i,t} = 1\{t \geq T_i\}$, with T_i the first year a national anti-domestic violence (ADV thereafter) law is in force; never-treated countries have $AntiDV_{i,t} = 0$ for all t. We include GDP per capita, urban share, population growth, and unemployment rate as control variables to account for key economic and demographic factors that may independently influence marriage rates over time. GDP per capita captures the level of economic development, which can shape marriage behavior by affecting household income and living standards. Urban share reflects the degree of urbanization, which is often associated with differences in family structures, social norms, and marriage patterns compared to rural areas. Population growth controls for shifts in the size and age composition of the marriage market that can mechanically and behaviorally affect marriage rates. Unemployment rate accounts for labor market conditions, as employment insecurity can delay marriage decisions, particularly among young adults. While country and year fixed effects absorb all time-invariant country characteristics and global shocks, these time-varying controls help isolate the effect of ADV laws from concurrent within-country economic and demographic fluctuations.

To address concerns that the adoption of ADV laws may coincide with broader socio-political reforms—such as the election of more liberal governments—we control for freedom index from Freedom House, a standard proxy for political liberty and democracy (see Acemoglu et al., 2019). Specifically, we use the civil liberty subindex (*Civil liberty*), which more directly captures rights and institutional constraints plausibly related to marriage/divorce attitudes.

Additionally, we include *Unilateral divorce* as a control, because divorce-law liberalization changes intra-household bargaining, potentially affecting divorce and marriage formation—channels that overlap with those of ADV statutes. Empirically, unilateral divorce (or lower divorce costs) has been shown to raise divorce—especially in the short run (Friedberg, 1998; Wolfers, 2006), and alter marriage formation and matching (Rasul, 2006; Reynoso, 2024). Because these effects are first-order and plausibly correlated with ADV rollouts, including an absorbing unilateral divorce indicator helps ensure that our ADV effects are not capturing broader family-law

Table 2 Effect of Anti-domestic Violence Laws on Marriage

Dependent variable = Marriage rate	(1) Full Sample	(2)	(3) Strong Rule of Law	(4)	(5) Weak Rule of Law	(6)
AntiDV	0.115	0.071	0.503**	0.515**	−0.271	−0.322
	(0.53)	(0.34)	(2.04)	(2.19)	(−0.83)	(−1.02)
GDP per capita		−0.037***		−0.022*		−0.031***
		(−3.51)		(−1.78)		(−2.75)
Urban share		0.014		−0.016		0.045
		(0.60)		(−0.55)		(1.38)
Population growth		0.253***		0.210***		0.261***
		(4.58)		(3.31)		(3.07)
Unemployment rate		−0.042*		−0.069**		−0.003
		(−1.77)		(−2.21)		(−0.07)
Civil liberty		0.015		0.037		0.012
		(0.20)		(0.28)		(0.12)
Unilateral divorce		0.041		−0.036		−0.103
		(0.17)		(−0.08)		(−0.34)
Constant	5.853***	5.600***	5.518***	7.528***	6.149***	3.382
	(54.57)	(3.44)	(40.51)	(3.65)	(45.09)	(1.49)
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	3678	3678	1936	1936	1742	1742
Adjusted R^2	0.758	0.771	0.787	0.797	0.754	0.764
Mean dependent variable	5.91		5.79		6.04	
Incremental effect	0.071/5.91 = 0.74%		0.515/5.79 = 8.89%		−0.322/6.04 = −5.33%	

This table reports the impact of anti-domestic violence laws on marriage rates following the baseline regression specification in Eq. (1). Our full sample consists of 4182 country-year observations, equally divided into groups with strong and weak rule of law. The sample period is from 1990 to 2023. The dependent variable *Marriage rate* measures the number of marriages per 1000 population in a given year. The indicator variable *AntiDV* equals 1 starting in the first year a national anti-domestic-violence law is in force, and remains 1 thereafter; 0 before. *Civil liberty* is a 1–7 scale of civil liberty score (1 = most free) from Free House, based on four domains: freedom of expression and belief, associational and organizational rights, rule of law, and personal autonomy and individual rights. *Unilateral divorce* is an indicator variable that equals 1 starting in the first year a symmetric unilateral/no-fault divorce regime comes into force, and remains 1 thereafter; 0 before. Other variable definitions are provided in the Appendix. Robust t-statistics based on standard errors clustered by country are reported in parentheses. The superscripts ***, **, and * denote statistical significance at the 1, 5, and 10% levels, respectively

changes. Specifically, we code *Unilateral divorce* as an absorbing indicator equal to 1 from the effective year of the reform onward and 0 before.

Considering that our treatment is defined at the country level, we cluster standard errors by country. With country fixed effects, β_1 is estimated as the within-country differences before and after the policy change as opposed to similar before-after differences in countries that did not make such a change during the same period (Imbens & Wooldridge, 2009).

Columns (1) and (2) of Table 2 exhibit the findings for the full sample. In Column (1), we only include *AntiDV*, country, and year fixed effects. In Column (2), we

additionally control for country characteristics. Both coefficient estimates on *AntiDV* are positive but statistically insignificant.

Columns (3) and (4) focus on the subsample of countries with strong rule of law. In both columns, the coefficients on *AntiDV* are positive and significant. In Column (3), where we only include *AntiDV*, country, and year fixed effects, the coefficient on *AntiDV* is 0.503 and significant at the 5% level. In Column (4), after additionally controlling for various country characteristics, the coefficient on *AntiDV* is 0.515 and significant at the 5% level: Marriage rates in treated countries increase by about 0.515 marriage per 1000 population relative to control countries. This effect is economically sizeable given that the average marriage rate in this subsample is 5.79 marriages per 1000 population (i.e., an increase of 8.89%).

Columns (5) and (6) focus on the subsample of countries with weak rule of law. The coefficients on *AntiDV* are small in magnitude and insignificant in both columns. Taking Column (6) for example, the coefficient on *AntiDV* is −0.322 with the corresponding t-statistic of −1.02.

Taken together, our findings indicate that anti-domestic violence laws lead to an increase in a country's marriage rate, and this result is mainly driven by countries with strong rule of law.

4.2 The role of rule of law

It is unsurprising that ADV laws have a significant positive effect on marriage only where the rule of law is strong: Effectiveness depends not merely on enactment but on credible enforcement. Without enforcement, statutes are largely symbolic (Becker & Stigler, 1974; Watson, 1986; Kanbur & Ronconi, 2018). The rule of law is fundamentally built on principles of equality, justice, and access to legal systems.[7] As Lincoln (2011) notes, in countries with weak rule of law, even when anti-domestic violence laws exist on paper, poor enforcement and limited access to justice can severely undermine their practical impact.

A natural concern is that our baseline split might be sensitive to the choice of rule of law index. To show that our findings are not index-specific, we replicate the main analysis using the World Justice Project (WJP) overall rule of law index and the same specification as Eq. (1). Table 3 partitions countries into strong vs weak rule of law using the WJP overall index and re-estimates Eq. (1) in each subsample.[8] In the strong rule of law group, the *AntiDV* coefficient is 0.638 (t = 2.66) without controls and 0.628 (t = 2.77) with controls, implying 0.628 marriages per 1000 population—about 10.8% of that subsample's mean (5.79). In the weak rule of law group, coefficients are negative and statistically insignificant (−0.523, t = −1.53 without controls; −0.533, t = −1.66 with controls), mirroring our baseline conclusion that ADV laws raise marriage only where enforcement capacity is strong.

Having established robustness to the rule of law measure, we next ask which institutional channels matter. Because the baseline World Bank rule of law measure

[7] For a summary of the rule of law, see Jensen & Heller (2003) and Tamanaha (2004).

[8] We partition countries into strong and weak rule of law groups using the earliest available WJP rule of law index value (2012). For countries lacking a WJP value in 2012, classification is based on the World Bank rule of law measure for 2012.

Table 3 Effect of Anti-domestic Violence Laws on Marriage in Alternative Rule of Law Groups

Dependent variable = Marriage rate	(1) Strong Rule of Law (WJP)	(2) Strong Rule of Law (WJP)	(3) Weak Rule of Law (WJP)	(4) Weak Rule of Law (WJP)
AntiDV	0.638***	0.628***	−0.523	−0.533
	(2.66)	(2.77)	(−1.53)	(−1.66)
GDP per capita		−0.019*		−0.034
		(−1.81)		(−0.85)
Urban sahre		−0.019		0.030
		(−0.75)		(0.82)
Population growth		0.188***		0.383***
		(3.25)		(3.36)
Unemployment rate		−0.035		−0.021
		(−1.37)		(−0.52)
Civil liberty		−0.010		−0.017
		(−0.07)		(−0.16)
Unilateral divorce		−0.001		−0.141
		(−0.00)		(−0.43)
Constant	5.147***	7.143***	6.696***	5.067**
	(40.93)	(3.75)	(44.52)	(2.12)
Country FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Observations	2082	2082	1596	1596
Adjusted R^2	0.773	0.783	0.762	0.768
Mean dependent variable	5.79		6.04	
Incremental effect	0.628/ 5.79 = 10.85%		−0.533/ 6.04 = −8.82%	

This table reports the impact of anti-domestic violence laws on marriage rates following the baseline regression specification in Eq. (1). We divide the full sample into strong and weak rule of law samples based on the overall index from the World Justice Project (WJP). The sample period is from 1990 to 2023. The dependent variable *Marriage rate* measures the number of marriages per 1000 population in a given year. The indicator variable *AntiDV* equals 1 starting in the first year a national anti-domestic-violence law is in force, and remains 1 thereafter; 0 before. *Civil liberty* is a 1–7 scale of civil liberty score (1 = most free) from Free House, based on four domains: freedom of expression and belief, associational and organizational rights, rule of law, and personal autonomy and individual rights. *Unilateral divorce* is an indicator variable that equals 1 starting in the first year a symmetric unilateral/no-fault divorce regime comes into force, and remains 1 thereafter; 0 before. Variable definitions are provided in the Appendix. Robust t-statistics based on standard errors clustered by country are reported in parentheses. The superscripts ***, **, and * denote statistical significance at the 1, 5, and 10% levels, respectively

Table 4 Effect of Anti-domestic Violence Laws on Marriage by Dimensions of Legal Institutions

Panel A: Strong Rule of Law Sample					
	Rule of Law Measures	*AntiDV* Coefficient	t-stat	Obs	Adjusted R^2
(1)	Constraints on Government Powers	0.477*	(1.93)	2085	0.786
(2)	Absence of Corruption	0.523**	(2.16)	2086	0.782
(3)	Open Government	0.556**	(2.51)	2055	0.791
(4)	Fundamental Rights	0.559**	(2.54)	2050	0.784
(5)	Order and Security	0.505**	(2.01)	2046	0.780
(6)	Regulatory Enforcement	0.549**	(2.18)	2083	0.781
(7)	Civil Justice	0.396	(1.57)	2052	0.778
(8)	Criminal Justice	0.606**	(2.53)	2048	0.760
Panel B: Weak Rule of Law Sample					
	Rule of Law Measures	*AntiDV* Coefficient	t-stat	Obs	Adjusted R^2
(1)	Constraints on Government Powers	−0.453	(−1.47)	1593	0.765
(2)	Absence of Corruption	−0.471	(−1.44)	1592	0.767
(3)	Open Government	−0.386	(−1.22)	1623	0.762
(4)	Fundamental Rights	−0.387	(−1.20)	1628	0.768
(5)	Order and Security	−0.483	(−1.49)	1632	0.772
(6)	Regulatory Enforcement	−0.597*	(−1.92)	1595	0.772
(7)	Civil Justice	−0.384	(−1.17)	1626	0.768
(8)	Criminal Justice	−0.522*	(−1.68)	1630	0.792

This table reports the impact of anti-domestic violence laws on marriage rates following the baseline regression specification in Eq. (1). We divide the full sample into strong and weak rule of law samples based on the eight dimensions of World Justice Project (WJP) rule of law index. Panel A reports results for countries with strong rule of law, and Panel B for those with weak rule of law. In each Panel, Row (1) through (8) focus on individual dimensions: Constraints on Government Powers, Absence of Corruption, Open Government, Fundamental Rights, Order and Security, Regulatory Enforcement, Civil Justice, and Criminal Justice. Countries are classified as strong or weak based on the median value of each measure. All regressions follow the baseline specification in Eq. (1). The dependent variable *Marriage rate* measures the number of marriages per 1000 population in a given year. The indicator variable *AntiDV* equals 1 starting in the first year a national anti-domestic-violence law is in force, and remains 1 thereafter; 0 before. For brevity, we only report the coefficient and t-statistic on *AntiDV*, along with the number of observations and adjusted R^2. Robust t-statistics based on standard errors clustered by country are reported in parentheses. The superscripts ***, **, and * denote statistical significance at the 1, 5, and 10% levels, respectively

lacks component scores, we use the WJP decomposition to study heterogeneity. Table 4 splits the sample into strong and weak rule of law groups for each of the eight WJP dimensions: Constraints on Government Powers, Absence of Corruption, Open Government, Fundamental Rights, Order and Security, Regulatory Enforcement, Civil Justice, and Criminal Justice. We then re-estimate Eq. (1) separately within each group. Panel A reports results for strong rule of law subsamples, where the coefficients on *AntiDV* are significantly positive across most cases (except when rule of law is defined solely by Civil Justice). Panel B reports results for weak rule of law subsamples, where the coefficients on *AntiDV* are generally negative and insignificant.

Together, these findings show that our results are robust across alternative rule of law measures and the effectiveness of anti-domestic violence laws is not merely driven by some single institutional channel, but rather reflects broader institutional capacity and credible legal enforcement.

4.3 Are the rule of law effects just proxying for norms or outside options?

A concern is that our "strong rule of law" result might still capture correlated fundamentals—more liberal gender norms or better outside options—rather than enforcement capacity per se. We address this in two steps. First, we show that the average effect of ADV laws does not differ along these fundamentals alone. Second, we show that the marriage effect of ADV laws remains concentrated in strong rule of law countries even within bins of outside options and gender norms.

Internet Appendix Table IA1 split the sample by outside options (high/low female labor participation): in both bins, the *AntiDV* coefficients are statistically insignificant. Internet Appendix Table IA2 repeats the exercise by gender norms (egalitarian/inegalitarian): again, both *AntiDV* coefficients are insignificant. We then condition on rule of law within each bin. As reported in Internet Appendix Table IA3 and Table IA4, *AntiDV* is large and positive only under strong rule of law group, while it is null or negative under weak rule of law group. And the rule of law differential is especially pronounced where women have worse outside options or face more inegalirarian norms.

Taken together, these patterns suggest that rule of law is not merely correlated with these channels, but plays a complementary and enabling role: Anti-domestic violence laws only translate into behavioral change where institutional capacity to implement and enforce them is strong. This alleviates concerns that our rule of law heterogeneity simply proxies for other favorable country characteristics. Accordingly, subsequent analyses focus on the strong rule of law subsample, where the institutional environment permits anti-domestic violence statutes to translate into behavioral change.

4.4 Pre-treatment trends and dynamic effects

Figure 1 provides a visual illustration of the dynamics of marriage rates around the adoption of ADV laws. We follow Beck et al. (2010) and plot the point estimates and 90% confidence intervals of the parameters $\beta\tau$ from the following regression:

$$\begin{aligned} Marriage\ rate_{i,t} = \alpha + \beta_{-8} D_{i,t}^{-8} + \beta_{-7} D_{i,t}^{-7} + \ldots + \beta_{8} D_{i,t}^{+8} + Year\ FE \\ + Country\ FE + \varepsilon_{i,t}, \end{aligned} \tag{2}$$

where D^{-j} equals one for countries in the j^{th} year before the law's adoption, while D^{+j} equals one for countries in the j^{th} year after the adoption. The baseline year is defined as the year prior to adoption, allowing us to estimate the dynamic effects of ADV laws on marriage rates relative to the year before implementation. At the end points, $D_{i,t}^{-8}$ equals one for all years that are eight or more years before the adoption, while $D_{i,t}^{+8}$ equals one for all years that are eight or more years after the adoption.

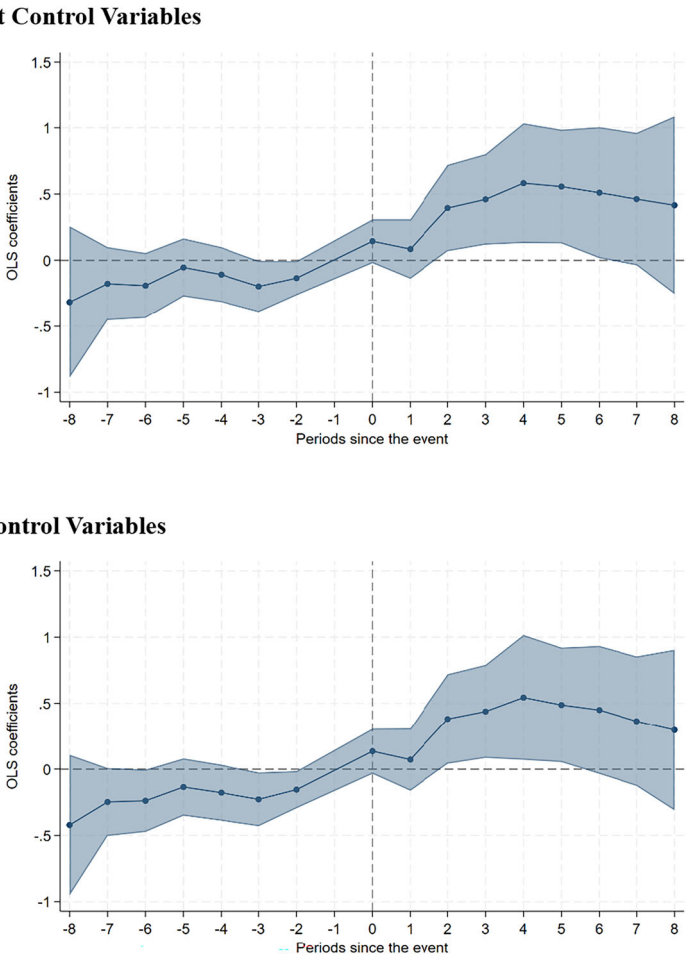

Fig. 1 Dynamic Effects of the Anti-domestic Violence Law on Marriage. Figure 1 shows a visual DiD test examining the effect of the anti-domestic violence law on marriage rates. The analysis focuses on the 61 countries classified as having strong rule of law from 1990 to 2023. The y-axis denotes the coefficients of β_{-8} to β_8 estimated from Eq. (2). The x-axis denotes the time relative to the adoption year of the law (with year 0 denoting the adoption year). The shaded area corresponds to the 90% confidence intervals based on robust standard errors clustered by country. Panel A and B shows the estimates without and with control variables.

Panel A shows the results estimated by Eq. (2). The y-axis plots the marriage rate and the x-axis shows the time relative to the year of adoption of the ADV laws. The shaded area in the figure corresponds to the 90% confidence intervals of the coefficient estimates. The coefficients on β_{-8} to β_{-2} are especially important because their significance indicates whether there is any difference in marriage decisions between the treatment and the control groups prior to the policy change. The coefficients on these indicators are small in magnitude and not statistically significant, suggesting that the parallel trend assumption is not violated. The absence of any significant lead effects has three noticeable implications. First, the adoption of ADV

laws does not seem to be fully anticipated by households in the treated countries. Second, even if some households anticipated such policy changes, the actual marriage decisions remain unaffected until the policies were officially implemented. Third, the impact of ADV laws on marriage is not due to policymakers merely reacting to past marriage trends, mitigating any concern about reverse causality.

Furthermore, Panel A also shows that the adoption of ADV laws is associated with an obvious increase in countries' marriage rates. In the year prior to the baseline year, the β_{-2} coefficient is about -0.14; in the second year post-adoption, the corresponding coefficient of β_2 is approximately 0.44 (about three times as large as that of β_{-2} in terms of magnitude). Four years after the adoption of the ADV law, the coefficient of β_4 is 0.63 (more than four times as large as that of β_{-2} in terms of magnitude).

We also include the same set of control variables used in the baseline regression (Eq. 1) and re-estimate Eq. (2). The results, presented in Panel B, show that the dynamic effects of ADV laws on marriage rates follow a similar trend compared to the specification without control variables. This suggests that the dynamic effects are robust even after accounting for time-varying country-specific economic and demographic characteristics.

In summary, this figure substantiates the validity of the parallel trend assumption. Moreover, it further shows that the increase in marriage rates persists several years after the legal reform, suggesting that the anti-domestic violence law has a persistent long-run effect on marriage decisions.

5 Mechanisms

There are two mechanisms through which ADV laws can increase marriage rates. First, ADV laws reduce the perceived risk of domestic violence—particularly for women—by providing legal protections such as civil protection orders and criminal sanctions. Greater expected safety within marriage can increase willingness to enter marriage. Second, ADV laws lower the exit costs of marriage by improving women's ability to leave harmful relationships; by facilitating divorce, they reduce the perceived risk of being trapped in an unsafe marriage. Together, these mechanisms work on both the entry margin (making marriage more attractive) and the exit margin (reducing the fear of being unable to leave), thus encouraging marriage formation overall. In this section, we will formally test for the two mechanisms one by one.

5.1 Entry margin: reduce perceived risk of domestic violence

5.1.1 Heterogeneity by domestic violence

According to the first mechanism, ADV laws reduce women's perceived risk of domestic violence, thereby making them more willing to enter into marriage. If this channel is at play, we would expect the treatment effect to be stronger in countries with higher baseline levels of domestic violence—that is, where high violence prevalence has been a significant deterrent to marriage, the introduction of ADV laws should have a larger marginal impact on women's willingness to marry.

To test this, we first employ a direct measure of domestic violence from Violence against women: an EU-wide survey (FRA) (2014), defined as the proportion of women subjected to physical and/or sexual violence in the past 12 months. This survey covers the 28 Member States of the European Union in 2012.[9] We further define the country as *High Violence* if the average proportion of women subjected to physical and/or sexual violence for that country exceeds the sample median, and as *Low Violence* otherwise. As illustrated in Fig. 2 Panel A, we assess the impact of ADV laws on marriage rates separately within these two groups of countries: the ones with high and low violence levels, respectively. We find that there is a significant increase in marriage rates after the legislation in countries grappling with high levels of domestic violence: The average value of β_0 to β_8 is 0.453. In contrast, in countries with low levels of domestic violence, the adoption of ADV laws only leads to a trivial increase in marriage rates: The average value of β_0 to β_8 is only 0.184.

Next, we use alcohol consumption as an additional proxy for domestic violence prevalence, given the well-documented link between alcohol use and intimate partner violence (Chalfin et al., 2021). Specifically, we obtain per-capita alcohol consumption data from WHO' Global Health Observatory Data Repository. Unlike domestic violence prevalence, alcohol consumption is unlikely to be downstream of ADV laws. Therefore, we use the most recent available year for each country, which offers better cross-country comparability with larger coverage. In Fig. 2 Panel B, we define a country as *High Alcohol* if the alcohol consumption per capita exceeds the sample median, and as *Low Alcohol* otherwise. We find that in countries with higher alcohol consumption, the average value of β_0 to β_8 is 0.778. However, for countries with lower alcohol consumption, the corresponding number is only 0.047.

Overall, Fig. 2 validates that the treatment effects of anti-domestic violence laws are stronger in countries where women face higher risks of domestic violence. This finding supports our conjectures that one mechanism for anti-domestic violence laws to influence marriage behavior is to reduce the perceived threat of domestic violence.

5.1.2 Heterogeneity by legal provisions

We provide additional evidence supporting the first mechanism by examining heterogeneity in ADV effects by legal provision. Broadly, ADV laws protect women through two main legal mechanisms: civil protection orders and criminal sanctions. Protection orders typically prohibit the accused from contacting or approaching the victim, with violations often resulting in immediate arrest. In addition, many jurisdictions provides criminal sanctions specific to domestic violence—either distinct domestic violence offenses or explicit sentencing aggravators. Previous studies document that well-enforced, prevention-oriented civil protection orders deliver more consistent safety gains than stand-alone criminal sanctions (Cordier et al., 2021; Garner et al., 2021). In line with the first mechanism, ADV laws with well-enfored civil protection orders help reduce the perceived risk of domestic violence, thereby

[9] Conditioning on domestic violence measured after the rollout of ADV laws may be problematic if policy affects domestic violence. Earlier sources (e.g., WHO compilations from the early 2000s) cover fewer countries and are not cross-country comparable (12-month vs. lifetime definitions, inclusion of psychological violence, differing age bands and sampling). Because comparability and coverage are critical for cross-country splits, we adopt the harmonized FRA 2012 survey as our primary baseline measure.

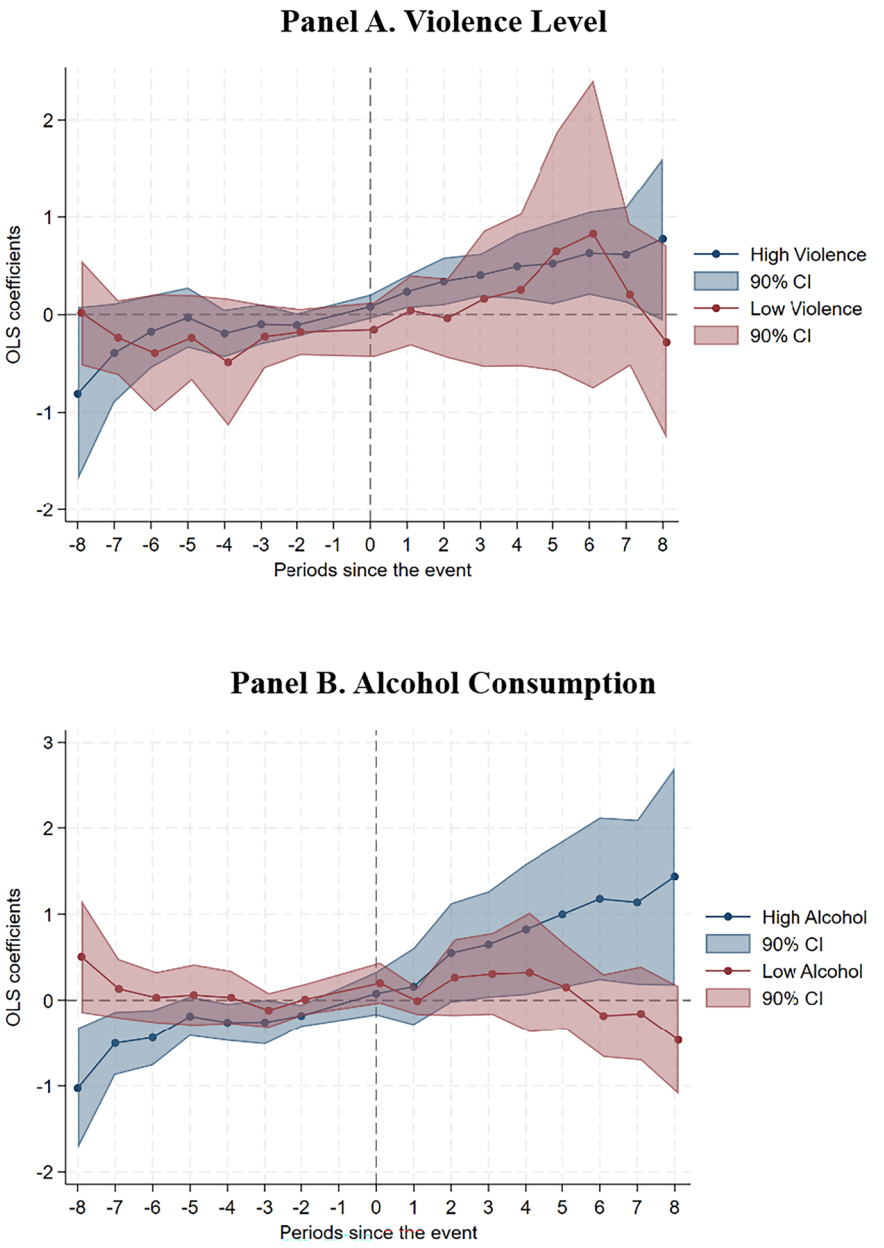

Fig. 2 Heterogeneity by Domestic Violence Levels. Figure 2 shows the marriage effects of anti-domestic violence laws, exploring heterogeneity by country's domestic violence levels. The analysis focuses on the 61 countries classified as having strong rule of law from 1990 to 2023. The regression follows that in Fig. 1 and is estimated separately for the two groups, divided by violence level (Panel A) and by alcohol consumption (Panel B). In Panel A, we define the country as *High Violence* if the proportion of women subjected to physical and/or sexual violence in the last 12 months (from FRA EU survey fielded in 2012) exceeds the sample median, and as *Low Violence* otherwise. In Panel B, we define the country as *High Alcohol* if the total alcohol consumption per capita (from the latest survey) exceeds the sample median, and as *Low Alcohol* otherwise

increasing women's willingness to marry. As a result, we expect larger marriage effects where ADV laws include civil protection orders.

We distinguish between laws that provide civil protection orders and those impose criminal sanctions. We start from World Bank WBL to identify statute names and adoption years, then read the primary ADV statutes and, where relevant, linked provisions in the Criminal/Penal Code. For each adopting country we code, at the time of the initial ADV adoption, whether the law provides: (i) Civil protection orders (e.g., protection / no-contact, exclusion / occupation / tenancy orders, police barring orders); and (ii) Criminal sanctions specific to domestic violence (distinct domestic violence offenses or explicit sentencing aggravators for domestic violence). We summarize the provision-by-country details in Internet Appendix Table IA6. In the strong rule of law subsample at adoption, 18 countries are Civil-only, 8 Criminal-only, and 31 Both.

To test the heterogeneity by legal provision, we estimate the follow model:

$$\begin{aligned} Marriage\ rate_{i,t} &= \alpha + \beta_1 CivilOnly_{i,t} + \beta_2 CriminalOnly_{i,t} + \beta_3 Both_{i,t} \\ &\quad + \beta_4 Country\ characteristics_{i,t} + Year\ FE + Country\ FE + \varepsilon_{i,t} \end{aligned} \tag{3}$$

The regression model mirrors Eq. (1) but replaces the single *AntiDV* indicator with three absorbing dummies defined by what the reform included at enactment: (a) *CivilOnly* equal to one if the law provides civil protections remedies only; (b) *CriminalOnly* equal to one if the framework provides criminal sanctions specific to domestic violence only; (c) *Both* equal to one if it provides both. All indicators turn from 0 to 1 in the first effective year and stays 1 thereafter. The omitted category is no ADV laws.

Table 5 reports estimates under two definitions of criminal sanction. In Column (1), criminal sanction includes either distinct domestic violence offenses or explicit sentencing aggravators; the corresponding indicators are *CivilOnly1*, *CriminalOnly1*, and *Both1*. The coefficient on *CivilOnly1* is significantly positive, while *CriminalOnly1* and *Both1* are positive but insignificant, indicating that frameworks with civil protection orders drive the marriage response. In Column (2), we adopt a stricter criminal sanction definition requiring distinct domestic violence offenses (aggravators alone do not qualify), and redefine the indicators as *CivilOnly2*, *CriminalOnly2*, and *Both2*; the pattern of results is qualitatively unchanged.

In conclusion, Table 5 shows that the marriage effects of ADV laws are primarily driven by civil-only regimes, consistent with the mechanism that reducing perceived domestic violence risks via enforceable protection orders encourages marriage formation.

5.2 Exit margin: reduce the fear of unable to leave

The second mechanism through which ADV laws may increase marriage rates is by reducing exit costs. Traditionally, individuals—especially women—may be hesitant to marry due to concerns about the difficulties and risks of leaving an unhealthy or abusive relationship. High exit costs, such as legal barriers, social stigma, and lack of support or protection, can deter marriage. ADV laws help reduce these costs by curtailing legal impunity for such offenses and legitimizing domestic violence as a valid ground for divorce (Schneider, 2008). Knowing that effective measures are in

Table 5 Heterogeneity by Provisions of Anti-domestic Violence Laws

Dependent variable = Marriage rate	(1)	(2)
CivilOnly1	0.959***	
	(2.85)	
CriminalOnly1	0.582	
	(1.13)	
Both1	0.258	
	(1.00)	
CivilOnly2		0.660**
		(2.49)
CriminalOnly2		0.056
		(0.16)
Both2		0.017
		(0.05)
GDP per capita	−0.018	−0.024*
	(−1.40)	(−1.83)
Urban share	−0.015	−0.012
	(−0.52)	(−0.41)
Population growth	0.217***	0.210***
	(3.36)	(3.26)
Unemployment rate	−0.065**	−0.067**
	(−2.10)	(−2.14)
Civil liberty	0.024	0.009
	(0.16)	(0.06)
Unilateral divorce	−0.064	−0.038
	(−0.14)	(−0.08)
Constant	7.366***	7.435***
	(3.55)	(3.57)
Country FE	Yes	Yes
Year FE	Yes	Yes
Observations	1936	1936
Adjusted R^2	0.800	0.798

This table reports the heterogeneity in the effect of anti-domestic violence laws on marriage rates by legal provision. The analysis focuses on the 61 countries classified as having strong rule of law from 1990 to 2023. All regressions follow Eq. (3). The dependent variable *Marriage rate* measures the number of marriages per 1000 population in a given year. In Column (1), *CivilOnly1, CriminalOnly1*, and *Both1* are absorbing indicators defined by what the ADV reform included at enactment: (a) *CivilOnly1* equal to one if the law provides civil protections remedies only; (b) *CriminalOnly1* equal to one if the framework provides criminal sanction specific to domestic violence—either distinct domestic violence offenses or explicit sentencing aggravators; (c) *Both1* equal to one if both are provided. In Column (2), *CivilOnly2*, *CriminalOnly2*, and *Both2* mirror the above but adopt a stricter criminal definition: criminal sanction requires that domestic violence be codified as a distinct offense (sentencing aggravators alone do not qualify). All indicators turn from 0 to 1 in the first effective year and stays 1 thereafter. *Civil liberty* is a 1–7 scale of civil liberty score (1 = most free) from Free House. *Unilateral divorce* is an indicator variable that equals 1 starting in the first year a symmetric unilateral/no-fault divorce regime comes into force, and remains 1 thereafter; 0 before. Other variable definitions are provided in the Appendix. Robust t-statistics based on standard errors clustered by country are reported in parentheses. The superscripts ***, **, and * denote statistical significance at the 1, 5, and 10% levels, respectively

place can make individuals feel more secure about entering marriage, as the perceived long-term risks and costs of leaving a harmful relationship are lower. In this way, by reducing the perceived exit costs, ADV laws can make marriage more attractive, potentially increasing marriage rates.

If this mechanism holds, we would observe higher divorce rates following the adoption of ADV laws, reflecting the law's role in easing exit from abusive marriages. To test this, we apply the baseline specification from Eq. (1), replacing the dependent variable with the divorce rate. Table 6 Column (1) reports the results without control variables: The coefficient on *AntiDV* is 0.172, significant at the 10% level, indicating that divorce rates in treated countries increase by about 0.172 divorces per 1000 population relative to control countries. Column (2), which includes control variables, yields a coefficient of 0.139, also significant at the 10% level, implying an increase of about 0.139 divorces per 1000 population (approximately 7.6% of the sample mean of 1.82).[10]

Reading the divorce results alongside the marriage results clarifies the net implications. For marriages, the estimated effect is 0.515 marriages per 1000 population (about 8.9% of the subsample mean of 5.79). Using the common 'per-1000 population' denominator for both statistics, a back-of-the-envelope net flow into formal unions is 0.376 per 1000 population (0.515 − 0.139) in the years following reform. This net calculation is descriptive—it compares annual flows with a shared denominator and does not adjust for the fact that divorces arise from the married stock—yet it helps show the effect is not a mechanical wash.

Taken together, these findings show that the enactment of anti-domestic violence laws is associated with a significant rise in divorce rates and a positive net flow into marraige. Crucially, the two margins involve different couples: The rise in marriages reflects new unions formed under lower perceived risk (higher expected match quality), while the rise in divorces reflects existing marriages that exit when the cost of leaving unsafe unions falls. Interpreting the two together, anti-domestic violence laws appear to improve match quality—encouraging the formation of new marriages under safer conditions while enabling the dissolution of marriages that would otherwise be trapped. It also supports our second mechanism: By reducing the legal and social costs of exiting a harmful marriage, anti-domestic violence laws help make marriage a more attractive and less risky choice, thereby contributing to higher marriage rates.

6 Robustness tests

Goodman-Bacon (2021) and Roth et al. (2023) show that standard two-way fixed effects (TWFE) estimates can be biased with staggered adoption, partly because earlier-treated groups serve as controls for later-treated groups, leading to the so-called "negative weighting" problem.

Following De Chaisemartin & D'Haultfoeuille (2023), we summarize diagnostics: the fraction of group-time average treatment effects on the treated (ATTs) that

[10] Our results are consistent with the single-country study by Bobonis et al. (2025), who find that divorce law reforms codifying intimate partner violence as legal grounds for unilateral divorce in Mexico lead to a significant increase in annual divorce rates.

Table 6 Effect of Anti-domestic Violence Laws on Divorce

Dependent variable = Divorce rate	(1)	(2)
AntiDV	0.172*	0.139*
	(1.92)	(1.79)
GDP per capita		−0.010**
		(−2.33)
Urban share		0.017
		(1.31)
Population growth		−0.007
		(−0.21)
Unemployment rate		0.012
		(1.04)
Civil liberty		0.060
		(0.98)
Unilateral divorce		−0.044
		(−0.18)
Constant	1.728***	0.695
	(35.09)	(0.76)
Country FE	Yes	Yes
Year FE	Yes	Yes
Observations	1738	1738
Adjusted R^2	0.747	0.762
Mean dependent variable	1.82	
Incremental effect	0.139/1.82 = 7.64%	

This table reports the impact of anti-domestic violence laws on divorce following the baseline regression specification in Eq. (1). The analysis focuses on the 61 countries classified as having strong rule of law from 1990 to 2023. The dependent variable *Divorce rate* measures the number of divorces per 1000 population in a given year. The indicator variable *AntiDV* equals 1 starting in the first year a national anti-domestic-violence law is in force, and remains 1 thereafter; 0 before. *Civil liberty* is a 1–7 scale of civil liberty score (1 = most free) from Free House. *Unilateral divorce* is an indicator variable that equals 1 starting in the first year a symmetric unilateral/no-fault divorce regime comes into force, and remains 1 thereafter; 0 before. Other variable definitions are provided in the Appendix. Robust t-statistics based on standard errors clustered by country are reported in parentheses. The superscripts ***, **, and * denote statistical significance at the 1, 5, and 10% levels, respectively

receive negative weights and the minimal standard deviation of treatment-effect heterogeneity needed to reverse the sign of the overall estimate. As shown in Table 6 Panel A, in the full sample of 123 countries, 18 are never treated and 21% of the group-time ATTs carry negative weights. In the strong rule of law subsample—our main focus, where ADV laws significantly affect marriage rates—4 out of 61 countries are never treated and the negative-weight share rises to 29%. Nonetheless, the minimum standard deviation needed to flip the sign (0.680) remains larger than the point estimate (0.503), suggesting that our results are robust to moderate levels of treatment-effect heterogeneity.

We further apply the interaction-weighted (IW) DiD estimator of Sun & Abraham (2021) to address staggered adoption and heterogeneous treatment effects over event

time. The procedure is: (i) estimate a saturated event-study specification that interacts relative-time (event-time) indicators with treatment-cohort indicators to obtain cohort-specific dynamic effects at each relative time; (ii) compute the empirical distribution of cohorts contributing to each relative time (the share of observations by cohort at each event time); and (iii) form IW estimates by weighting the cohort-specific estimates from step (i) with the cohort shares from step (ii).

Table 7 Panel B reports the event-study results with relative years D^{-8} to D^{-2} and D^{0} to D^{8}. The leads are small and jointly indistinguishable from zero (pre-trend test $p = 0.941$), supporting parallel trends. Post-adoption, the path builds gradually: Effects are near zero at D^{0}-D^{1}, then become economically sizable from D^{2} through D^{6} (e.g., $D^{2} = 0.442$, $p = 0.101$; $D^{5} = 0.480$, $p = 0.079$; $D^{6} = 0.405$, $p = 0.115$). Aggregating the post-period, the average treatment effect over D^{0} to D^{8} is 0.333 and significant at 5% level—about 0.333 marriages per 1000 population, roughly 5.8% of the strong rule of law subsample mean (5.79)

Overall, the Sun–Abraham estimator delivers no pre-trends, a delayed but persistent post-reform rise in marriages, and an average post effect that is economically meaningful and consistent with our baseline. Hence, the main inference—that anti-domestic violence laws increase marriage in strong rule of law countries—is robust to an alternative DiD method.

7 Limiation and future research

First, it is worth noting that our "strong rule of law" result might still reflect unobserved social or economic conditions rather than enforcement capacity per se. While we show that the pattern is not driven by female labor force participation or gender norms, it may remain correlated with factors such as divorce stigma, the local availability of shelters, or judicial attitudes. Readers should be aware of this possible limitation when deciding how our findings might be generalized. Looking ahead, it would be valuable to examine how complementary social, economic, or cultural mechanisms could amplify the impact of anti-domestic violence laws—and potentially render them effective even where institutional capacity is weak.

Second, this paper investigates the impact of anti-domestic violence laws using a cross-country approach. This framework allows us to analyze variations across countries—such as differences in the rule of law, the implementation of civil protection orders versus criminal sanctions, and prevailing social norms—and thereby gain a deeper understanding of the heterogeneous effects of these laws. However, future research could explore the effects of anti-domestic violence legislation on marriage within a single-country context, which would better control for cultural homogeneity and provide context-specific insights.[11]

Third, it would be interesting to investigate whether the impact of anti-domestic violence laws on marriage rates is driven by (1) an increase in marriage among existing

[11] The one single-country study we identified, Gu et al. (2022), examine China's ADV Law and find increases in married women's life satisfaction, not marriage or divorce outcomes. Among cross-country studies, Nguyen & Le (2022) and Richardson et al. (2025) analyze domestic violence prevalence, while Beleche (2019) and Amin et al. (2021) study severe downstream harms (e.g., suicide, mortality).

Table 7 Robustness Tests

Panel A: Diagnostic Statistics for Negative Weighting and Treatment-effect Heterogeneity		
Statistics	(1)	(2)
Sample	Full Sample	Strong Rule of Law Sample
TWFE coefficients for *AntiDV*	0.115	0.503
Fraction of ATTs with negative weights	21.47%	29.21%
Min SD of treatment effects required to reverse sign	0.199	0.680
Number of never-treated countries	18	4

Panel B: Alternative DiD Method				
Dependent variable = Marriage rate				
Relative year	Coefficient	Std. error	t-stat	p-value
D^{-8}	0.059	0.255	(0.23)	0.815
D^{-7}	−0.021	0.262	(−0.08)	0.936
D^{-6}	−0.101	0.254	(−0.40)	0.690
D^{-5}	0.001	0.247	(0.00)	0.999
D^{-4}	−0.069	0.248	(−0.28)	0.782
D^{-3}	−0.109	0.237	(−0.46)	0.644
D^{-2}	−0.054	0.231	(−0.24)	0.814
D^{0}	0.154	0.234	(0.66)	0.510
D^{1}	0.085	0.235	(0.36)	0.717
D^{2}	0.380	0.261	(1.46)	0.145
D^{3}	0.442	0.270	(1.64)	0.101
D^{4}	0.517	0.320	(1.61)	0.108
D^{5}	0.480*	0.273	(1.76)	0.079
D^{6}	0.405	0.257	(1.58)	0.115
D^{7}	0.352	0.263	(1.34)	0.181
D^{8}	0.182	0.225	(0.81)	0.419
Average post (D^{0}-D^{8})	**0.333***	**0.176**	**(1.89)**	**0.059**
Pre-trend check. Joint test of leads (D^{-8}…D^{-2}) = 0: *p-value* = 0.941.				

This table presents robustness tests for our baseline regressions. Panel A shows diagnostic statistics for negative weighting and treatment-effect heterogeneity in two-way fixed effects (TWFE) estimates, with Column (1) and (2) showing results for the full sample and the strong rule of law sample, respectively. Panel B reports the interaction-weighted (IW) difference-in-differences estimator of Sun & Abraham (2021). The analysis focuses on the 61 countries classified as having strong rule of law from 1990 to 2023. Specifically, we estimate the dynamics of marriage rates around the adoption of anti-domestic violence laws using 16 time indicators, spanning from D^{-8} to D^{-2} and D^{0} to D^{+8}, and calculate the average treatment effect over the post-adoption period. Country and year fixed effect included. Robust t-statistics (based on robust standard errors) are shown in parentheses. The superscripts ***, **, and * denote statistical significance at the 1, 5, and 10% levels, respectively

unmarried partners (an intensive margin effect) or (2) an increase in the probability of forming new partnerships (an extensive margin effect). Relatedly, future research could also examine the impact of anti-domestic violence laws on fertility rates.

8 Conclusion

Domestic violence is a pervasive global issue affecting about 30% of women worldwide (World Health Organization, 2021). Yet the impact of this violence on women's marriage decisions remains under-studied. Our paper seeks to fill this research gap by presenting empirical evidence about the impacts of domestic violence on women's marriage decisions in a global setting.

Utilizing global data on anti-domestic violence legislation from 1990 to 2023, we find that the implementation of such laws leads to a significant increase in marriage rates in countries with strong rule of law. The treatment effect is especially pronounced in countries where the legislation only provde civil protection remedies, and in those where women are at greater risk of domestic violence. Moreover, the adoption of this legislation is also associated with a substantial rise in divorce rates. Taken together, our findings suggest that anti-domestic violence legislation increases women's willingness to enter into marriage by reducing their risk of experiencing domestic violence and by lowering the exit costs associated with marriage.

Data availability Data is provided within the manuscript.

Supplementary information The online version contains supplementary material available at https://doi.org/10.1007/s11150-025-09818-w.

Acknowledgements We are grateful to Yifei Lu for excellent research assistance.

Author contributions Gao and Petrova wrote the main manuscript text and Yin implemented the empirical analysis. All authors reviewed the manuscript.FundingGao and Yin acknowledge the financial support from the National Natural Science Foundation of China (Grant No. 72472028 and 72402040, respectively).

Compliance with ethical standards

Competing interests The authors declare no competing interests.

9 Appendix

Appendix: Variable Definition

Variable	*Definition*
AntiDV	Indicator variable that equals 1 if a national anti-domestic-violence law is in force; 0 otherwise. The indicator is absorbing from the first effective year onward.

Table continued

Variable	*Definition*
Both1	Indicator variable that equals 1 if the law provides both civil protections remedies and criminal sanctions (distinct domestic violence offenses or explicit sentencing aggravators); 0 otherwise. The indicator is absorbing from the first effective year onward.
Both2	Indicator variable that equals 1 if the law provides both civil protections remedies and criminal sanctions (distinct domestic violence offenses); 0 otherwise. The indicator is absorbing from the first effective year onward.
Civil liberty	Annual civil liberties score (1–7; 1 = most free) from Free House. It answers the four groups of questions: freedom of expression and belief, associational and organizational rights, rule of law, and personal autonomy and individual rights.
CivilOnly1	Indicator variable that equals 1 if the law provides civil protections remedies only (no distinct domestic violence offenses nor explicit sentencing aggravators); 0 otherwise. The indicator is absorbing from the first effective year onward.
CivilOnly2	Indicator variable that equals 1 if the law provides civil protections remedies only (no distinct domestic violence offenses); 0 otherwise. The indicator is absorbing from the first effective year onward.
CriminalOnly1	Indicator variable that equals 1 if the law provides criminal sanctions only (distinct domestic violence offenses or explicit sentencing aggravators); 0 otherwise. The indicator is absorbing from the first effective year onward.
CriminalOnly2	Indicator variable that equals 1 if the law provides criminal sanctions only (distinct domestic violence offenses); 0 otherwise. The indicator is absorbing from the first effective year onward.
Divorce rate	Number of divorces per 1000 population.
GDP per capita	Gross domestic product (GDP) per capita (thousand US$).
Marriage rate	Number of marriages per 1000 population.
Population growth	Annual growth rate of national population.
Unemployment rate	Share of the labor force that is without work but available for and seeking employment.
Unilateral divorce	Indicator variable that equals 1 if a symmetric unilateral/no-fault divorce regime is in force; 0 otherwise. The indicator is absorbing from the first effective year onward.
Urban share	Proportion of urban population relative to total population.

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