The price of Silence: Marriage payment and Women's Attitude toward Intimate Partner Violence

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26th ERF Annual Conference - Gender Issues

Luxor, Egypt, 2020

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Exploring the **impact of marriage payments in women's attitude toward intimate partner violence**

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$\rightarrow$ **Instrumental variable strategy**:
Unobservable Heterogeneity & Reverse Causality

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$\rightarrow$ **Instrumental variable strategy**:
Unobservable Heterogeneity & Reverse Causality

Main Results: a higher prompt-dower increase woman's justification of intimate partner violence

Context and Motivation

Violence against Women in Middle East (UnWomen)

$\rightarrow$ 37 % of women experience IPV ; 60 % remains silent; others forms of violence against women prevail.

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→ Religious tradition justifying violence as a tool of discipline *(Oweis and al. (2009); Al-Badayneh (2012); Yount and Li (2009))*

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The role of marriage institution ?

→ Cultural institutions shape women psychology and inter-subjectivity on IPV related norms *(Alesina and al. (2016); Banerjee and al. (2019))*
→ Marriage payments: arising concerns around the world

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Marriage in Jordan

→ Jordanian Personal law status defined by Islamic law (Sharia)

→ Dower legal requirement to the validation of the marriage contract

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Dower *(Islamic Bride-Price)*

→ Payment from the groom to the bride in form of money or possession

→ Falls in two part: **prompt** (paid during the marriage) and **deferred** (paid at the dissolution: divorce or death)

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Feminist campaign (early 90's) and public opinion debate

→ Dower: source of independence and access to property and ownership

→ Prompt-Dower: Exchange for women sexual availability and obedience & barrier to divorce (*Talaq vs Khul*)

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↗ & ↘ **Women's Well Being** *(Platteau and Gaspart (2007, 2010); Lowes and Nunn (2017); Corno and al. (2016; 2017)*

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Dower (Groom to Bride Herself): MENA and South Asia
Prompt:
Deferred: **Husband's commitment and divorce constraint**
(Anderson and al (2017); Ambrus and al. (2010))

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IPV and Dower: What can the literature tell us?

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1: Female autonomy and domestic violence

Historical approach & Bargaining theory: Women economic value protect them (Tur-Prats (2015); Alesina and al. (2013, 2016))

Male-Backlash Theory: challenge traditional gender roles, family's reputation and stability (Macmillan and Gartner (1999); Eswaran and Malhotra (2011))

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2: Women outsides options (Farmer and Tiefenthaler (1997))
Divorce constraint: Talaq vs Khul (return the prompt-dower) decreases women outsides options
Bride-Price trap women into union (Platteau and Gaspart)

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3: Women "commodification" (Lowes and Nunn (2017))
Prompt-Dower purchase women's rights, virginity, and capabilities (Anderson (2007); Hughes (2015))
Bride-price: normative constraint on women (Horne and al. (2013))

Data

Jordan Labor Market Survey (2016)

→ National representative survey; individual data

→ Analytic sample: 2.369 ever-married women between 1995 and 2016

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IPV: Does the husband have the right to hit his wife if she: *burns the food, wastes money, neglects children, refuses sex, argues with him or talks to another man*
→ Binary Variable: Say yes at least once ($\bar{X}$= 16%)
→ Cumulative ordinal index of responses ($\bar{X}$= 0,52 %)

Prompt-Dower: Value of the prompt-dower deflated by CPI *($\bar{X}$ = 4668 JD/6.583 USD)*, equivalent to 7 month of a household income

Empirical strategy

Probit estimation

$$IPV^*_{igt} = \beta_1 PromptDower_{igt} + \beta_2 Covariates_{igt} + \beta_3 Gov_g + \beta_4 Urb_{ig} + \epsilon_{igt}$$

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Covariates: Woman's and husband's age at first marriage
number of alive daughters and sons & number of dead children
level of woman's and husband's parents education
household quintile of wealth

Fixed effects: Governorates (administrative units); Urban/rural

Standard errors: Clustered at years of marriage and governorate level

Threat of identification

Omitted variable bias: Economic development, social norms and marriage conditions.

Additional spouses controls: Woman own level of education, Husband's level of education and an indicator of whether the woman was working before marriage.
Marriage arrangement: Indicator of a kinship union and a Nuclear arrangement.
Contemporaneous indicators at the local level: Divorced women rate, Gender attitude index, Religiosity index, Female labor Force Participation.
Past indicators at the local level: Divorce women rate, Hotel construction, Female unemployment rate, Male unemployment rate and Sex-Ratio.

Unobservable heterogeneity and reverse causality: Instrumental variable strategy

Instrumental variable strategy

Identification: Prompt/deferred payment of the dower ?
Available cash : shift from the **prompt** part to the **deferred** in less liquid assets, land or gold (Moors (1994); Siddiqui (2007); Shahrani (2016)

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Real international oil price: Exogenous variation of cash inflows from Gulf countries (Bouri and al. (2016); Mohaddes and Raissi (2013))

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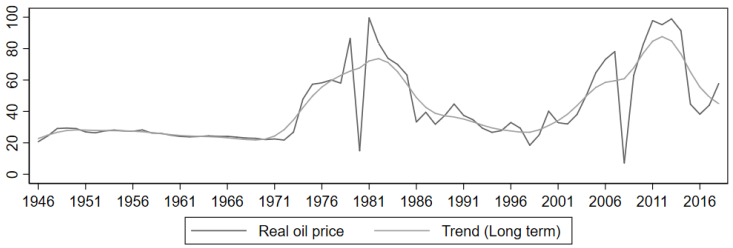

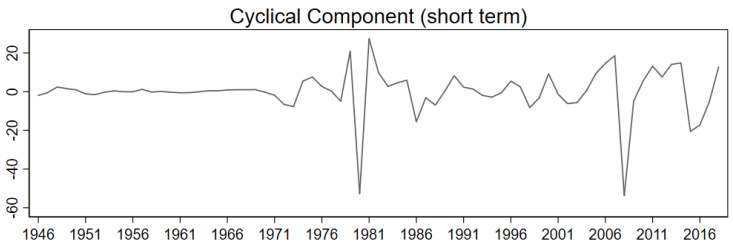

Short term variation: Hodrick-Prescott Decomposition

Avoid **omitted common trend** between marriage payment and gender norms (Bhalotra and al. (2016); Menon (2020))

Exclusion restriction and falsification test

Instrument impact IPV only through the prompt-dower

Matching quality ▸ Table

No correlation between instrument and spouses age and education difference, age and education squared difference and wages difference

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Migration and Sex-Ratio ▸ Table

No correlation between instrument and Sex-ratio, Net-migration and Male net migration; measured at local and national level

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Robustness: Inclusion of the extensive set of additional controls

Baseline Estimation Results

Independent variable : Woman attitude toward intimate partner violence (IPV)

Derivative of $P(IPV^*)$ at $\bar{X}$	(1)	(2)	(3)	(4)	(5)	(6)
Prompt Dower$_{/1000JD}$	0.00444**	0.00531***	0.00559***	0.00537***	0.00576***	0.00574***
	(0.00174)	(0.00196)	(0.00199)	(0.00197)	(0.00202)	(0.00200)
Baseline controls		✓	✓	✓	✓	✓
Additional Spouses controls			✓	✓	✓	✓
Marriage outcomes				✓	✓	✓
Contemporaneous controls					✓	✓
Past controls						✓
Observations	2,369	2,369	2,369	2,369	2,369	2,294
Fixed Effect	✓	✓	✓	✓	✓	✓
SE Cluster Governorate and Year	✓	✓	✓	✓	✓	✓

Derivative of $P(IPV^*)$ are marginal effects evaluated at the mean of the dependent variable. The sample includes women who were married between 1995 and 2016. Standard errors are clustered by governorate and years of marriage. *** p<0.01, ** p<0.05, * p<0.1.

Instrumented Estimation Results

Independent variable: Woman's Attitude Toward Intimate Partner Violence					
	(1)	(2)	(3)	(4)	(5)
Second Stage: IPV attitude estimation					
Prompt Dower$_{/1000JD}$	0.0702***	0.0690***	0.0686***	0.0739***	0.0831***
	(0.0258)	(0.0255)	(0.0254)	(0.0260)	(0.0253)
First Stage: Estimation of the Prompt-Dower					
Oil short term variation t_1	0.0109***	0.0112***	0.0112***	0.0104**	0.00877**
	(0.00373)	(0.00368)	(0.00361)	(0.00450)	(0.00380)
Baseline controls	✓	✓	✓	✓	✓
Additional Spouses controls		✓	✓	✓	✓
Marriage outcomes			✓	✓	✓
Additional Contemporaneous controls				✓	✓
Additional Past controls					✓
F-stat	26.78	23.45	23.00	20.81	22.07
Wald test of exogeneity (χ^2)	4.963**	5.049**	5.065**	4.985**	5.289**
Fixed Effect	✓	✓	✓	✓	✓
SE Cluster Governorate and Year	✓	✓	✓	✓	✓
Observations	2,369	2,369	2,369	2,369	2,294

Transmission Channel (◂ Table ◂ Table)

Independent variable: Woman's Attitude Toward Intimate Partner Violence

	(1)	(2)	(3)	(4)	(5)
PD X Declaring not having savings	0.00493**				
	(0.00205)				
PD X Declaring having savings	0.00831				
	(0.00406)				
PD X Was not working before marriage		0.00542***			
		(0.00206)			
PD X Was working before marriage		0.00470			
		(0.00335)			
PD X Having Never worked			0.00577***		
			(0.00215)		
PD X Having ever worked			0.00352		
			(0.00292)		
PD X Not Married to a Relative				0.00600***	
				(0.00205)	
PD X Married to a Relative				0.00330	
				(0.00287)	
PD X Not Nuclear					0.00709
					(0.00493)
PD X Nuclear					0.00520***
					(0.00198)
Observations	2,369	2,369	2,369	2,369	2,369

All regression include basic covariates, governorates and rural/urban fixed effect. Standard error are clustered

Placebo Analysis: Prompt-Dower and Violence Acceptance

What is the effect of the prompt-dower on woman's attitude toward IPV is capturing ?

Placebo Analysis: Change in the left-hand variable

$\rightarrow$ Patriarchal culture and gender norms

$\rightarrow$ Husband's authority

$\rightarrow$ Woman's fear of conflict

Cultural transmission channel?

	Boys and girls should **not** be treated equally	Girls **do not** go to school to prepare for jobs	Women should **not** have leadership positions in society	Boys and girls should **not** get the same schooling
	(1)	(2)	(3)	(4)
2SLS Second Stage				
Prompt Dower$_{/1000JD}$	-0.00883	0.00153	-0.0121	-0.0218
	(0.0122)	(0.0114)	(0.0133)	(0.0166)
2SLS First Stage				
Oil short term variation t_1	0.0109***	0.0109***	0.0109***	0.0109***
	(0.00373)	(0.00373)	(0.00373)	(0.00373)
Baseline controls	✓	✓	✓	✓
FE & SE	✓	✓	✓	✓
Observations	2,369	2,369	2,369	2,369

The sample includes women who were married between 1995 and 2016. Oil short term variation are short term deviation of the real international oil price from its long term trend (see Figure). *** p<0.01, ** p<0.05, * p<0.1.

Husband Authority channel?

Do you need permission to go?	**Local Market**	**Going to doctor**	**Taking a child to doctor**	**Visiting friend/family**
	(1)	(2)	(3)	(4)
2SLS: Second Stage				
Prompt Dower$_{/1000JD}$	0.0288	0.0447	0.0227	0.0295
	(0.0441)	(0.0500)	(0.0482)	(0.0430)
2SLS First Stage				
Oil short term variation t_1	0.0109***	0.0109***	0.0109***	0.0109***
	(0.00373)	(0.00373)	(0.00373)	(0.00373)
Baseline controls	✓	✓	✓	✓
Fixed Effect	✓	✓	✓	✓
SE Cluster Governorate and Year	✓	✓	✓	✓
Observations	2,369	2,369	2,369	2,369

The sample includes women who were married between 1995 and 2016. Oil short term variation are short term deviation of the real international oil price from its long term trend (see Figure). *** p<0.01, ** p<0.05, * p<0.1.

(Psychological) fear of conflict channel ?

Independent variable: Are you afraid of disagreeing with your husband or other males in the household?	
2SLS Second Stage: Estimation of challenge to male authority	
Prompt Dower$_{/1000JD}$	0.0469
	(0.0408)
2SLS First Stage: Estimation of the Prompt-Dower	
Oil short term variation t_1	0.0110***
	(0.00370)
Baseline controls	✓
Fixed Effect	✓
SE Cluster Governorate and Year	✓
Observations	2,365

The sample includes women who were married between 1995 and 2016. Oil short term variation are short term deviation of the real international oil price from its long term trend. *** p<0.01, ** p<0.05, * p<0.1.

Jordanian woman "contribution" to the Household

Jordanian reciprocity of the marriage contract:

Maintenance and Dower vs. Obedience and sexual availability

Jordanian woman "contribution" to the Household

Jordanian reciprocity of the marriage contract:

Maintenance and Dower vs. Obedience and sexual availability

$\rightarrow$ Her *productive* role: providing him with children and security on his paternity (lineage control) (Pearl, Menski (1998); Fournier (2006))

Violence and Context

Attitude toward IPV	*Refuses sex, talks to the another men, argues with him*	*Burns food, neglects children, wastes money*
IV - Probit	(1)	(2)
Second Stage Estimation		
Prompt Dower$_{/1000JD}$	0.0660**	0.0341
	(0.0266)	(0.0339)
First Stage Estimation		
Oil short term variation t_1	0.0109***	0.0109***
	(0.00372)	(0.00373)
Wald test of exogeneity (χ^2)	4.59**	0.99
F- Stat	26.80	26.69
Observations	2,371	2,371

All regression include basic covariates, governorates and rural/urban fixed effect. Standard error are clustered by year of marriage and governorates. The sample includes women who were married between 1995 and 2016. Oil short term variation are short term deviation of the real international oil price from its long term trend . *** p<0.01, ** p<0.05, * p<0.1.

Intensity and cumulative ordinal index

Does the husband have the right to hit his wife if she ?	*All six question*	*Refuses sex, talks to the another men, argues with him*	*Burns food, neglects children, wastes money*
IV - Poisson	(1)	(2)	(3)
Second Stage Estimation			
Prompt Dower$_{/1000JD}$	0.221*	0.582**	0.322
	(0.125)	(0.292)	(0.304)
First Stage Estimation			
Oil short term variation t_1	0.00220***	0.0123***	0.0123***
	(0.000697	(0.00375)	(0.00375)
Observations	2,369	2,371	2,371

All regression include basic covariates, governorates and rural/urban fixed effect. Standard error are clustered by year of marriage and governorates. The sample includes women who were married between 1995 and 2016. Oil short term variation are short term deviation of the real international oil price from its long term trend *** p<0.01, ** p<0.05, * p<0.1.

Additional Robustness check

Reporting error bias & Alternative Prompt-Dower Measure

Table

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Value declared by the Husband
Exclusion of non Jordanian women
Value declared in 2010 Survey

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Reporting error bias & Alternative Prompt-Dower Measure

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Sample temporal restriction

◂ Table

Inclusion of older marriages: 1970 - 1980 - 1990

Instrument robustness

◂ Table

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Oil short term variation by Hodrich Prescott Filter: Alternative smoothing parameter (6.25; 100; 500)

Short term VS Long term: IV-Probit controlling for long term trend

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Alternative estimator

Table

Estimations by: IV-Probit - IV-Poisson - IV-Tobit - 2SLS

Conclusion

What has been done?

→ Highlighting the effect of the Prompt-Dower on women's attitude toward IPV in Jordan

Main results

→ A 1000 JD increase in the mean Prompt-Dower increase the probability of woman justifying violence by 8 percentage point

Policy implication

→ Institution such as marriage payment might contribute to legitimate harm-full social norms

Thank you for your attention

Socioeconomic characteristics	All Sample	Justified IPV At least Once	Justified IPV Never
Woman's level of Education (%)			
Illiterate	5,7	7,2	5,5
Basic	44,8	46,0	44,6
(Post) Secondary	24,2	21,3	24,8
University	25,2	25,5	25,2
Husband's level of Education (%)			
Illiterate	6,1	8,0	5,8
Basic	55,4	53,5	55,8
(Post) Secondary	21,3	19,9	21,6
University	17,1	18,6	16,9
Woman's characteristics			
Woman ever worked (%)	14,8	13,8	15,0
Woman was working before marriage (%)	9,6	10,6	9,4
Spouses Marriage arrangement			
Kinship Union (%)	28,0	27,4	28,1
Nuclear arrangement (%)	84,6	84,3	84,6
Woman's age at marriage	21,43	21,4	21,4
Husband's age at marriage	26,55	26,3	26,6
Spouse age difference	5,54	5,3	5,6
Number of Years of marriage	5,46	5,2	5,5
Spouses Children			
Number of alive sons	1,03	0,9†	1,1
Number of alive daughters	0,98	1,0	1,0
Number of Death children	0,02	0,02†	0,03
Spouses Quintile of Wealth (%)			
First quintile	19,4	19,9	19,3
Second quintile	18,2	18,1	18,2
Third quintile	22,9	23,4	22,8
Fourth quintile	24,5	23,9	24,6
Firth quintile	15,0	14,6	15,1
Urban/rural (%)			
Urban	74,3	72,6	74,6
Rural	25,7	27,4	25,4

Quantitative test: Prompt-dower and patriarchy

Back

More "Patriarchal" gender norms

	Mean of Prompt Dower (JD)		
	Violence Never justified	Violence Justified at least once	Kruskal–Wallis P-Value
If husband disagreed with gender equality$_1$	3396	3214	0.801
If woman disagreed with gender equality$_1$	2996	2319	0.316
If husband disagreed with gender equality$_2$	3099	3578	0.568
If woman disagreed with gender equality$_2$	2483	2898	0.491
If Non-educated Husband	2820	3835	0.115

Kruskal–Wallis test is a non parametric test on pairwise comparison of difference in mean. † indicate a significant P-value. N = 2369 (estimation sample). Gender equality$_1$: Boys and girls should be treated equally; Gender equality$_2$:Boys and girls should get the same schooling ; Non-educated Husband : Illiterate

Instrument correlation with marriage timing

	(1)	(2)	(3)	(4)	(5)
	Woman	Husband	Woman	Husband	Engagement period
Age at Marriage			Squared value		
Oil short term variation t_1	0.00446	-0.000210	0.204	-0.00518	-0.00635
	(0.00323)	(0.00381)	(0.146)	(0.222)	(0.00579)
Observations	2,369	2,369	2,369	2,369	2,310

Note : Correlations are obtained by linear regression (OLS), include controls, governorates and urban fixed effect. Standard errors are clustered at the year of marriage and governorate level. Engagement period is the duration between formal engagement and actual marriage in month.

◂ Back

Instrument correlation with migration and sex-ratio

	(1)	(2)	(3)	(4)	(5)
Level	Sex-ratio Governorate	Male net migration Governorate	Net migration Governorate	Sex-ratio National	Net migration National
Oil short term variation t_1	-0.000518	564.6	994.5	8.06e-06	1,334
	(0.000311)	(366.2)	(627.5)	(1.51e-05)	(955.6)
Observations	2,368	2,368	2,368	2,369	2,369

Note : Correlations are obtained by linear regression (OLS), include controls, governorates and urban fixed effect. Standard errors are clustered at the year of marriage and governorate level. The instrument is lagged a year before the marriage. Specification (5) includes only women for who wages information are available.

◂ Back

Instrument correlation with matching quality

	(1)	(2)	(3)	(4)	(5)
Spouse Difference	Education	Age	Education Squared value	Age value	Wages
Oil short term variation t_1	-0.00308	-0.00162	-0.00456	-0.0203	-0.707
	(0.00259)	(0.00291)	(0.0203)	(0.0597)	(0.448)
Observations	2,369	2,369	2,369	2,369	210

Note : Correlations are obtained by linear regression (OLS), include controls, governorates and urban fixed effect. Standard errors are clustered at the year of marriage and governorate level. Education is measured as years of schooling. Instrument is lagged a year before the marriage. Specification (5) includes only women for who wages information are available.

◂ Back

Credibility of the divorce-threat

Independent variable: Woman's Attitude Toward Intimate Partner Violence

	(1)	(2)	(3)
Sub-Sample	Not Having savings	Not working Before Marriage	Never Worked
Second Stage Estimation			
Prompt Dower$_{/1000JD}$	0.0594**	0.0699***	0.0650**
	(0.0272)	(0.0267)	(0.0278)
First Stage Estimation			
Oil short term variation t_1	0.0116***	0.0116***	0.0121***
	(0.00368)	(0.00435)	(0.00436)
Observations	2,166	2,142	2,018
	(4)	(5)	(6)
Sub-Sample	Having savings	Worked Before Marriage	Ever Worked
Second Stage			
Prompt Dower$_{/1000JD}$	0.101*	-0.110***	0.0987*
	(0.00672)	(0.00633)	(0.0298)
First Stage			
Oil short term variation t_1	0.000874	-4.47e-05	0.00428
	(0.00807)	(0.000250)	(0.00990)
Observations	184	221	341

All regression include basic covariates, governorates and rural/urban fixed effect. Standard error are clustered by year of marriage and governorates. The sample includes women who were married between 1995 and 2016. Oil short term variation are short term deviation of the real international oil price from its long term trend (see Figure). *** p<0.01, ** p<0.05, * p<0.1.

Role of Extended Family

Independent variable: Woman's Attitude Toward Intimate Partner Violence				
	(1)	(2)	(3)	(4)
Sub-Sample of Women	Nuclear	Not related	Stem (Not nuclear)	Related
Second Stage				
Prompt Dower$_{/1000JD}$	0.0694**	0.0986***	0.0744	-0.0326
	(0.0344)	(0.0182)	(0.0498)	(0.0438)
First Stage				
Oil short term variation t_1	0.0106**	0.00807*	0.0116**	0.0161**
	(0.00441)	(0.00432)	(0.00450)	(0.00666)
Wald test of exogeneity (χ^2)	2.768*	6.146**	1.596	0.682
F-stat	27.37	25.13	40.63	11.61
Observations	2,003	1,706	348	663

All regression include basic covariates, governorates and rural/urban fixed effect. Standard error are clustered by year of marriage and governorates. The sample includes women who were married between 1995 and 2016. Oil short term variation are short term deviation of the real international oil price from its long term trend.*** p<0.01, ** p<0.05, * p<0.1.

Back

Estimation results: Full Table

Back

Additional control variables

Back

Alternative Prompt-Dower Measurement

	Declared by the Husband	**Excluding Non Jordanian**	**Declared in the 2010 Survey**
	(1)	(2)	(3)
Probit : Attitude toward IPV			
Prompt Dower$_{/1000JD}$	0.115**	0.174***	0.120**
	(0.0527)	(0.0645)	(0.0530)
Observations	2,453	2,143	2,369
	(4)	(5)	(6)
IV-Probit : Attitude toward IPV			
Second Stage			
Prompt Dower	0.162***	0.197***	0.282***
	(0.0514)	(0.0533)	(9.38e-05)
First Stage			
Oil short term variation t_1	0.0144***	0.0155***	4.28e-05**
	(0.00400)	(0.00432)	(1.67e-05)
	2,453	2,069	2,369

All regressions include basic covariates, governorates and rural/urban fixed effect. Standard errors are clustered by year of marriage and governorates. The sample includes women who were 15 years old between 1995 and 2016. Oil short term variation are short term deviation of the real international oil price from its long term trend (see Figure). *** p<0.01, ** p<0.05, * p<0.1.

◂ Back

Sample temporal restriction

	(1)	(2)	(3)
Sample start	1970	1980	1990
Probit : Attitude toward Intimate Partner Violence			
Prompt Dower$_{/1000JD}$	0.00384**	0.00360**	0.00393**
	(0.00153)	(0.00165)	(0.00180)
Observations	3,874	3,510	2,777
	(4)	(5)	(6)
Sample start	1970	1980	1990
IV-Probit : Attitude toward Intimate Partner Violence			
Second Stage			
Prompt Dower$_{/1000JD}$	0.0380*	0.0383*	0.0496*
	(0.0229)	(0.0201)	(0.0273)
First stage			
Oil short term variation t_1	0.0129***	0.0149***	0.0120***
	(0.00435)	(0.00439)	(0.00426)
Observations	3,824	3,482	2,777
Wald test of exogeneity (χ^2)	2.517	3.365*	2.875*
F-stat	17.10***	20.53***	22.26***

All regressions include basic covariates, governorates and rural/urban fixed effect. Standard error are clustered by year of marriage and governorates. The sample includes women who were 15 years old between 1995 and 2016. Oil short term variations are short term

Alternative estimation method

	Poisson	**Tobit**	**OLS**
	(1)	(3)	(4)
Prompt Dower$_{/1000JD}$	0.195***	0.176**	0.171**
	(0.0540)	(0.0691)	(0.0665)
Observations	2,369	2,369	2,369
	IV-Poisson	**IV-Tobit**	**2SLS**
	(4)	(5)	(6)
Second Stage			
Prompt Dower	0.221*	0.0949*	0.0799*
	(0.125)	(0.0522)	(0.0438)
First Stage			
Oil short term variation t_1	0.00220***	0.0109***	0.0109***
	(0.000697)	(0.00373)	(0.00378)
Wald test of exogeneity (χ^2)		3.66**	
Wooldridge test of exogeneity			5.55**
F-stat	26.81***	26.81***	26.81***
Observations	2,369	2,369	2,369

All regression include basic covariates, governorates and rural/urban fixed effect. Standard error are clustered by year of marriage and governorates. The sample includes women who were 15 years old between 1995 and 2016. Oil short term variation are short term deviation of the real international oil price from its long term trend (see Figure). *** p<0.01, ** p<0.05, * p<0.1.

◂ Back

Robustness on instrument measurement

	(1)	(2)	(3)	(4)	(5)	(6)
IV-Probit : Attitude toward IPV						
Smoothing Parameter (λ)	6.25	100	500	6.25	100	500
Second Stage						
Prompt Dower	0.223***	0.224***	0.216***	0.224***	0.225***	0.217***
	(0.0486)	(0.0497)	(0.0539)	(0.0528)	(0.0554)	(0.0587)
First Stage						
Oil short term variation t_1	0.0122***			0.0140***		
	(0.00402)			(0.00502)		
Oil short term variation t_1		0.0109***			0.0119***	
		(0.00373)			(0.00456)	
Oil short term variation t_1			0.0122***			0.0127***
			(0.00402)			(0.00457)
Oil short term variation t_1 **Long term variation (trend)**				✓	✓	✓
Observations	2,369	2,369	2,369	2,369	2,369	2,369
Wald test of exogeneity (χ^2)	5.273**	4.963**	4.492**	4.387**	3.951**	3.740**
F-stat	26.57***	26.81***	27.22***	26.35***	26.29***	26.43***

All regressions include basic covariates, governorates and rural/urban fixed effect. Standard errors are clustered by year of marriage and governorates. The sample includes women who were 15 years old between 1995 and 2016. Oil short term variations are short term deviation of the real international oil price from its long term trend (see Figure). *** p<0.01, ** p<0.05, * p<0.1.

Back