Marriage and Divorce under Labor Market Uncertainty

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Motivation

- Gender differences in labor market outcomes are related to choices made both in the marriage market and at the household level.
- Two dimensions:
  1. Marriage market: Who do I marry? Who do I divorce? $\rightarrow$ Marital sorting.
  2. Household level: how do we organize our time to maximize utility flows?
     $\rightarrow$ Trade-off between labor supply and home production (specialization).

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  - My labor market status affects who I can marry.
  - Changing labor market status affects marital stability.
- Suppose gender equality in labor market outcomes was a political goal.
- Understanding this interaction would be critical to achieving this goal.

This paper: Theory

- We study this two-way interaction in a novel structural model.
- Marriage market: TU, random search, ex-ante heterogeneity (Shimer & Smith, 2000).
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  - Differences in returns to home hours induce specialization, augmented by love shock.

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  - Differences in returns to home hours induce specialization, augmented by love shock.
- This mechanism affects marital stability, and marital sorting.

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- We confront the model with German household survey data.
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  3. Application to the German labor market reforms (2003–2005).
  4. Application to marital sorting and inequality (not today).

Literature

- Unemployment, especially male unemployment, is associated with an increase in the divorce rate (e.g. Jensen and Smith, 1990; Hansen, 2005; Amato and Beattie, 2011).
- Marriage/divorce rates negatively correlated with unemployment over the business cycle (e.g. Schaller, 2013; González-Val and Marcén, 2017a/b).
- Does female labor market participation decrease or increase marital stability? (Newman and Olivetti, 2017 vs. Folke and Rickne, 2020).
- Marriage market matching models (with and without frictions, TU/NTU): Becker (1973/74), Burdett & Coles (1997), Shimer & Smith (2000), Jacquemet & Robin (2012), Choo & Siow (2006), Choo (2015), Chiappori et al. (2015).
- Most closely related: Goussé et al. (2017), Greenwood et al. (2016).
- Also related: models of joint search: Guler et al. (2012), Pilossoph & Wee (2021), Fang & Shephard (2019).

Outline

1. Descriptive Evidence
2. Model
3. Estimation
4. Application

Descriptive Evidence

Household specialization - Time Inputs

- Labor market work hours per day

	single		married			
	U	E	UU	UE	EU	EE
male	0.57	9.68	0.25	0.66	10.23	10.32
female	0.67	8.50	0.21	8.02	0.67	7.64

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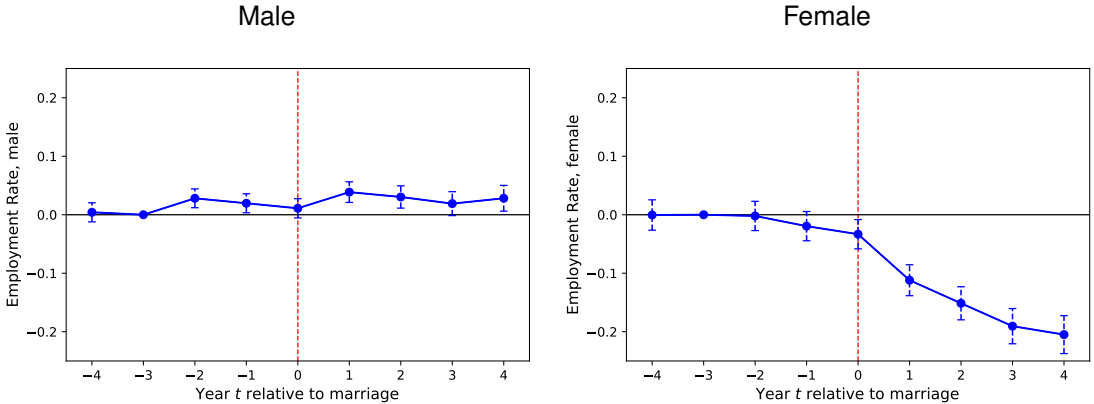
- Domestic work hours per day (childcare, errands, repairs, routine chores):

	single		married			
	U	E	UU	UE	EU	EE
male	3.21	2.62	4.99	5.42	3.08	3.13
female	6.00	3.97	7.39	4.57	9.89	5.90

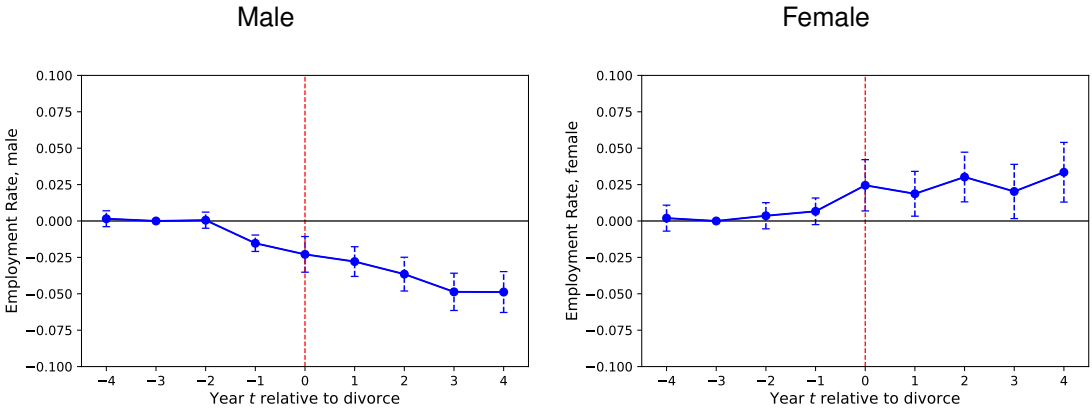
Event Study: Employment Rate around Marriage



- Relative to matched control group: no marriage, matched in $t-3$.

Marriage around EU | Marriage around UE

Event Study: Employment Rate around Divorce



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Event Study: Work Hours around Divorce

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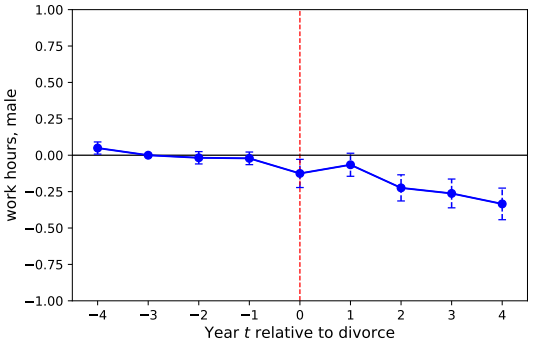
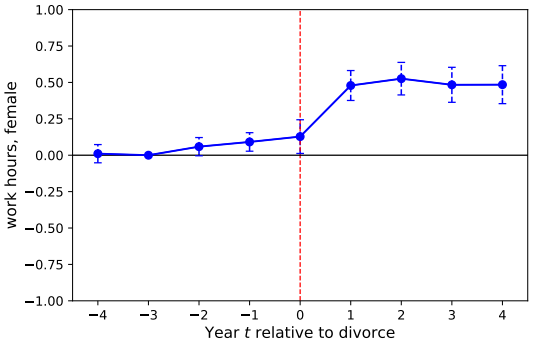


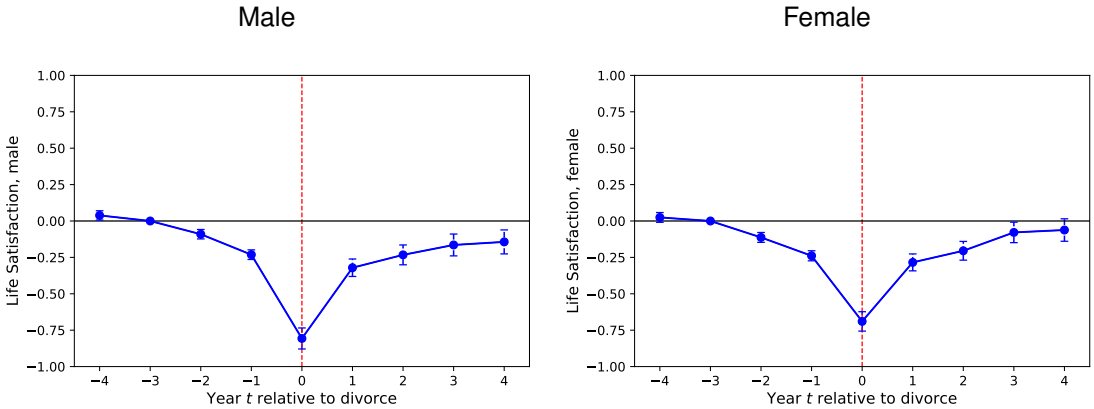
Female



- Relative to matched control group: no divorce, matched in $t-3$.

Work Hours around Marriage | Domestic Hours around Marriage | Domestic Hours around Divorce

Event Study: Life Satisfaction around Divorce



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Model

The Basics

- Marriage Market: Transferable utility, random search, and ex-ante heterogeneity (following Becker, 1973/74; Shimer & Smith, 2000; Goussé et al., 2017).
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- Labor Market: Endogenous labor search decisions on and off the job (as in Burdett & Mortensen, 1998, but no firms). Exogenous separations.
- Utility flow depends on own income, leisure and home production.
- For married couples, home production depends on:
  - time input into domestic work
  - match-specific “love” shock

Utility

- We assume quasi-linear preferences in consumption c_f, leisure e_f and a household public good y.

$$u\left(c_f, e_f, y\right) = c_f + \zeta_x e_f + y$$

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$$\text{with } y = \begin{cases} \left(X_j^l\right)^{1-\alpha_x} (h_f)^{\alpha_x} & \text{if single female} \\ \left(z X_{ij}^{-ll}\right)^{(1-\gamma_y-\gamma_x)} (h_m)^{\gamma_y} (h_f)^{\gamma_x} & \text{if married.} \end{cases}$$

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$$c_f = I_j^l + t \text{ and } c_m = I_i^{-l} - t$$

$$\overline{h} = l_j^l + h_f + e_f \text{ and } \overline{h} = l_i^l + h_m + e_m$$

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- Linearity in consumption implies that income changes affects the couples' joint utility in the same way as single utilities.

  $\Rightarrow$ Marital surplus is independent of spouses' current income. Event study evidence

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- While married, couples renegotiate when match-specific shock hits or in case of EU/UE-transitions. The Value of Marriage
- Specifically, taking up a job implies less hours for home production and leisure.
- No commitment, efficient divorce in case of negative surplus.

Endogenous Search Intensity and Reservation Wages

Endogenous search intensity and reservation wages depend on

- employed married/single: current wage.
- unemployed single: UI, home production, marriage market option value.
- unemployed married:
  - UI,
  - labor market status and type of spouse,
  - match-specific shock,
  - household public good.

Reservation Wages: Singles

- While employed, the reservation wage is equal to the current wage irrespective of marital status, i.e., $R_j^{l,-l}\left(z, I_i^{-l}, w_j\right) = R\left(w_j\right) = w_j$.

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- The reservation wage of an unemployed single (defined by $V_j^e\left(R_j^u\right) = V_j^u\left(b_j\right)$), is

$$R_j^u = b_j - \zeta_x\left(l_j^u - l_j^e\right) + \xi_y\left(X_j^u - X_j^e\right) + \lambda\beta_x \int_i \sum\nolimits_{-l} \left(\overline{S}^{-lu}_{z_{ij}^{-lu}} - \overline{S}^{-le}_{z_{ij}^{-le}}\right) s_i^{-l} di.$$

where $\bar{S}^{-ll}_{z_{ij}^{-ll}} \equiv \int_{z_{ij}^{-ll}}^{\infty} S_{ij}^{-ll}(z) dG(z)$.

Reservation Wages: Married

- Unemployed married female j with a partner of type i and emp. status $-l$.
- Definition:

$$R_{j,i}^{u,-l}(z) = R_j^u + r\left(S_{ij}^{-lu}(z) - \max\left[0, S_{ij}^{-le}(z)\right]\right)$$

- A married individual faces on top of a single individual additional gains or losses associated with the effect of a changed labor market status on marital surplus.

Reservation Wages: Married

- If after a shock the new z is high enough (above z_{ij}^{-le}) the individual will stay married and the marital surplus of a female of type j changes from $S_{ij}^{-lu}(z)$ to $S_{ij}^{-le}(z)$.

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- Through this mechanism, a negative love shock will...
  - decrease the reservation wage (due to lower marital surplus) and
  - increase the labor market search intensity of the unemployed spouse.
  - make a transition into employment more likely.
  - make a divorce more likely.

Reservation Wages: Married

- Note two things:
  1. The couple is currently married, so $S_{ij}^{-lu}(z) > 0$. Thus, reservation wage of unemployed married is (weakly) higher compared to unemployed single.
  2. But, the lower the love shock z, the lower is current marital surplus. Thus, the reservation wage is lower and search intensity higher ...

Search Equilibrium

- The equilibrium is characterized by:
  - a set of surplus functions $S_{ij}^{ll}(z)$,
  - search intensities for unemployed married and single individuals, $\{\widehat{\sigma}_i^{u,l}(z), \widehat{\sigma}_j^{u,-l}(z)\}$ and $\{\widehat{\sigma}_i^u, \widehat{\sigma}_j^u\}$,
  - love shock threshold values z_{ij}^{ll},
  - the distributions of married couples m_{ij}^{ll} for each type ij and labor market status ll,
  - and single distributions s_i^l, s_j^l.
- Solution algorithm: alternating fixed-point iterations, three model blocks. Details

Estimation

Structural Estimation

- Four versions: no heterogeneity (today),
  heterogeneous education, heterogeneous age, heterogeneity in both dimensions.
- We target the following moment groups:
  - Yearly transition probabilities between: Example
    - married/single
    - employment/unemployment
    - EE-transition if employed
    - and combinations thereof
  - domestic work hours of unemployed singles and couples, where both are unemployed.
  - median wages for males and females.
- We have analytical expressions for all theoretical moments $\rightarrow$ GMM identification

Target Moments and Fit

Table: Initial state: single

Moment	Mean	Estimation	Deviation
T_sju_sju_none_1	0.795	0.759	-3.60pp
T_sju_sje_none_1	0.187	0.169	-1.80pp
T_sju_mju_none_1	0.013	0.060	4.70pp
T_sju_mje_none_1	0.005	0.014	0.90pp
T_siu_siu_none_1	0.757	0.784	2.70pp
T_siu_sie_none_1	0.234	0.151	-8.30pp
T_siu_miu_none_1	0.005	0.054	4.90pp
T_siu_mie_none_1	0.003	0.005	0.20pp

Table: Initial state: married

Moment	Mean	Estimation	Deviation
T_miuju_miuju_none_1_1	0.712	0.657	-5.50pp
T_miuju_miuje_none_1_1	0.051	0.111	6.00pp
T_miuju_mieju_none_1_1	0.093	0.131	3.80pp
T_miuju_mieje_none_1_1	0.029	0.044	1.50pp
T_miuju_siu_sju_none_1_1	0.110	0.049	-6.10pp
T_miuju_siu_sje_none_1_1	0.002	0.023	2.10pp
T_miuju_sie_sju_none_1_1	0.003	0.005	0.20pp
T_miuje_sie_sju_none_1_1	0.001	0.010	0.90pp
T_mieju_siu_sje_none_1_1	0.002	-0.013	-1.50pp

Table: Hours and wages

Moment	Mean	Estimation	Deviation
hh_f_su_none_1	5.283	5.284	0.02%
hh_m_su_none_1	2.815	2.814	-0.04%
hh_muu_f_none_1_1	7.897	7.830	-0.85%
hh_muu_m_none_1_1	4.991	4.905	-1.72%
w_p50_f_none_1	13.476	13.570	0.70%
w_p50_m_none_1	17.408	17.513	0.60%

Moment	Mean	Estimation	Deviation
T_sje_sje_none_1_comb	0.798	0.770	-2.80pp
T_sie_sie_none_1_comb	0.784	0.892	10.80pp
T_sje_mje_none_1_comb	0.016	0.062	4.60pp
T_sie_mie_none_1_comb	0.017	0.073	5.60pp
T_mieju_mieju_none_1_1_comb	0.709	0.802	9.30pp
T_miuje_miuje_none_1_1_comb	0.623	0.620	-0.30pp
T_mieju_mieje_none_1_1_comb	0.140	0.163	2.30pp
T_miuje_mieje_none_1_1_comb	0.146	0.123	-2.30pp
T_mieje_mieje_none_1_1_comb	0.779	0.799	2.00pp
T_mieju_sie_sju_none_1_1_comb	0.006	0.000	-0.60pp
T_mieju_sie_sje_none_1_1_comb	0.001	0.000	-0.10pp
T_miuje_siu_sje_none_1_1_comb	0.015	0.078	6.30pp
T_miuje_sie_sje_none_1_1_comb	0.002	0.007	0.50pp
T_mieje_sie_sje_none_1_1_comb	0.007	0.000	-0.70pp

Estimated Parameter Values

Parameter	Symbol	Value
Output elasticity male hours married	γ_y	0.100169
Output elasticity female hours married	γ_x	0.160040
HH public good EE	X_{ij}^{ee}	3.831828
HH public good EU	X_{ij}^{eu}	3.492983
HH public good UE	X_{ij}^{ue}	0.115131
HH public good UU	X_{ij}^{uu}	0.805449
Wage offer dist shape female	ϑ_j	0.036759
Wage offer dist shape male	ϑ_i	0.058715

Estimated Parameters Values

Parameter	Symbol	Value
HH public good single male E	X_i^e	0.012107
HH public good single male U	X_i^u	0.641705
Output elasticity male hours single	α_y	0.286963
Leisure coefficient male	ζ_y	0.100021
HH public good single female E	X_j^e	0.010053
HH public good single female U	X_j^u	0.539622
Output elasticity female hours single	α_x	0.396608
Leisure coefficient female	ζ_x	0.100113

Estimated Parameters Values

Parameter	Symbol	Value
Quit rate female	q_j	0.171884
Quit rate male	q_i	0.035313
Love shock arrival rate	δ	0.655706
Marriage market matching efficiency	ϕ	0.078410
Male bargaining power	β_y	0.200013
Labor market matching efficiency female	μ_j	0.046432
Labor market matching efficiency male	μ_i	0.036816
Love shock standard deviation	σ_z	1.147241

Application

The German labor market reforms (2003-2005)

- Many changes, hard to evaluate (means-testing, UI, matching efficiency, etc.).
- Female employment was relatively more affected by the reforms.
- Change in socially insured employment (Burda & Seele, 2020):
  - Women: **5.3%** in 2003–08 and **6.8%** in 2008–11.
  - Men: **2.7%** in 2003–08 and **3.5%** in 2008–11.
- At the same time, divorce rates increased:
  - **1.3%** (2000–02), **1.9%** (2003–05), **1.5%** (2006–08), **1.5%** (2006–08)
- Our model can explain how rising employment and divorce rates are associated.

Flow Equation System

Equate inflows and outflows:

$$\lambda \alpha_{ij}^{-ll} s_i^{-l} s_j^{l} + \bar{\tau}_{i,j}^{-l',l} m_{ij}^{-l'l} + \bar{\tau}_{j,i}^{l',-l} m_{ij}^{-ll'} = \left[\delta \left(1 - \alpha_{ij}^{-ll} \right) + \underline{\tau}_{i,j}^{-l,l} + \bar{\tau}_{i,j}^{-l,l} + \underline{\tau}_{j,i}^{l,-l} + \bar{\tau}_{j,i}^{l,-l} \right] m_{ij}^{-ll}$$

The outflow consists of divorces driven by love shocks, $\delta \left(1 - \alpha_{ij}^{-ll} \right)$ and labor market transitions that lead to a divorce, $\underline{\tau}_{i,j}^{-l,l} + \underline{\tau}_{j,i}^{l,-l}$, where

$$\underline{\tau}_{j,i}^{u,-l} = \begin{cases} 0 & \text{if } z_{ij}^{-le} \leq z_{ij}^{-lu} \\ \mu_j \int_{z_{ij}^{-lu}}^{z_{ij}^{-le}} \sigma_{j,i}^{u,-l} \left(R_{j,i}^{u,-l} \left(z' \right) \right) \left[1 - F_j \left(R_{j,i}^{u,-l} \left(z' \right) \right) \right] dG \left(z' \right) & \text{if } z_{ij}^{-le} > z_{ij}^{-lu} \end{cases}$$

Mechanism

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   - $\underline{\tau}_{j,i}^{u,u}$ increases by approx. 6%.
   - Share of m^{uu} couples falls from 5.3% to 4.2%.
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2. Additionally decrease b_j and b_i to "Hartz IV" level.
   - Small increase in married population share (79,91%).
   - $\underline{\tau}_{j,i}^{u,u}$ increases further, 8.3%.
   - Share of m^{ue} couples rises to 5%.

Conclusions

- We present a novel structural model that highlights the interaction between decisions made in labor and marriage markets.
- Using German data, we apply the model to recent labor market reforms and find significant feedback effects $\rightarrow$ more “labor market divorces”.
- Companion paper on marital sorting and income inequality (full heterogeneity).

Thank you for your attention.

Bastian Schulz

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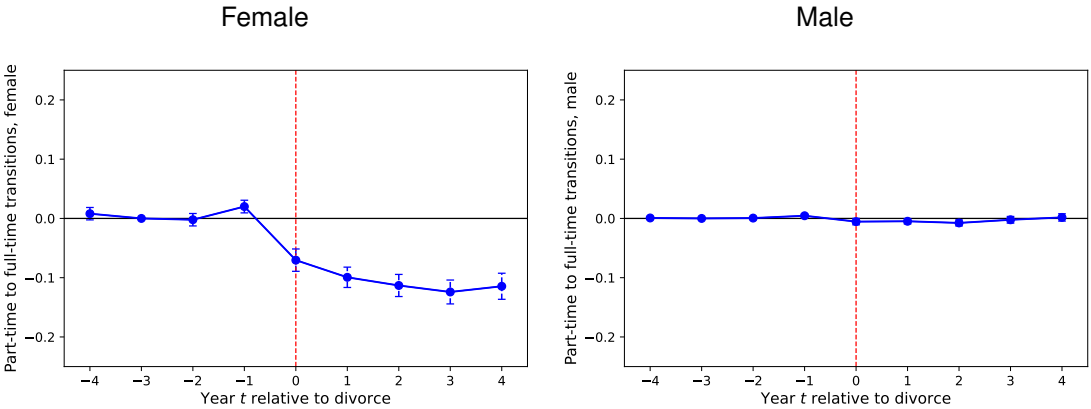
Event Study: Part-time to full-time transitions around Divorce



- Relative to matched control group: no divorce, matched in $t-3$.

Bargaining - No Commitment

- Bargaining powers are (β_i, β_j), with $\beta_i + \beta_j = 1$.
- Search intensities and transfers are chosen such that the Nash-Product,

$$\left[V_j^{l,-l}\left(z, I_i^{-l}, I_j^{l}\right) - V_j^{l}\left(I_j^{l}\right)\right]^{\beta_j}\left[V_i^{-l,l}\left(z, I_i^{-l}, I_j^{l}\right) - V_i^{-l}\left(I_i^{-l}\right)\right]^{\beta_i},$$

  is maximized subject to participation and feasibility constraints.

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  is maximized subject to participation and feasibility constraints.
- If a labor market transition or a love shock occurs, search intensities $(\sigma_{i,j}^{-l,l}(.), \sigma_{j,i}^{l,-l}(.))$ and transfers (t_i, t_j) are (re)negotiated.
- Marital Surplus is defined as the gain from marriage for both spouses:

$$\begin{aligned} S_{ij}^{-ll}\left(z, I_i^{-l}, I_j^{l}\right) \equiv & \left[V_j^{l,-l}\left(z, I_i^{-l}, I_j^{l}\right) - V_j^{l}\left(I_j^{l}\right)\right] \\ + & \left[V_i^{-l,l}\left(z, I_i^{-l}, I_j^{l}\right) - V_i^{-l}\left(I_i^{-l}\right)\right] \end{aligned}$$

Go back

The Value of Singlehood

- The present value of being a single female with $l \in \{e, u\}$ satisfies:

$$rV_j^l\left(I_j^l\right) = \underbrace{u_j^l\left(I_j^l\right)}_{\text{Flow utility}} + \underbrace{q_j\left[V_j^u\left(b_j\right) - V_j^l\left(I_j^l\right)\right]\mathbb{1}\left[l=e\right]}_{\text{Job separation if employed}}$$

$$+ \underbrace{\max_{\sigma_j}\left[\sigma_j\mu_j\int\max\left[V_j^e\left(w_j'\right) - V_j^l\left(I_j^l\right), 0\right]dF_j\left(w_j'\right) - c\left(\sigma_j\right)\right]}_{\text{Search intensity choice}}$$

$$+ \underbrace{\lambda_{ij}\iiint\max\left[V_j^{l,-l}\left(z', I_i^{-l}, I_j^l\right) - V_j^l\left(I_j^l\right), 0\right]dG\left(z'\right)s_i d\widehat{H}_i^s\left(I_i\right)di}_{\text{Option value of finding a (male) partner}}$$

- $\widehat{H}_i^s\left(I_i\right)$ is the income distribution for singles of type i, incorporating the wage earnings distribution $H_i^s\left(w_i\right)$ and the unemployment rate u_i^s.

Go back

The Value of Marriage

$$
\begin{aligned}
& rV_j^{l,-l}\left(z, I_i^{-l}, I_j^{l}\right) = u_j^{l,-l}\left(z, I_i^{-l}, I_j^{l}\right) \\
+ \;& \delta \int \left[\max\left[V_j^{l}\left(I_j^{l}\right), V_j^{l,-l}\left(z', I_i^{-l}, I_j^{l}\right)\right] - V_j^{l,-l}\left(z, I_i^{-l}, I_j^{l}\right)\right] dG\left(z'\right) \\
+ \;& \widehat{\sigma}_{j,i}^{l,-l}\mu_j \int_{R_j^{l,-l}(z, I_i^{-l}, I_j^{l})} \left[\max\left[V_j^{e}\left(w_j'\right), V_j^{e,-l}\left(z, I_i^{-l}, w_j'\right)\right]\right. \\
- \;& \left. V_j^{l,-l}\left(z, I_i^{-l}, I_j^{l}\right)\right] dF_j\left(w_j'\right) - c\left(\widehat{\sigma}_{j,i}^{l,-l}\right) \\
+ \;& \widehat{\sigma}_{i,j}^{-l,l}\mu_i \int_{R_i^{-l,l}(z, I_i^{-l}, I_j^{l})} \left[\max\left[V_j^{l}\left(I_j^{l}\right), V_j^{l,e}\left(z, w_i', I_j^{l}\right)\right] - V_j^{l,-l}\left(z, I_i^{-l}, I_j^{l}\right)\right] dF_i\left(w_i'\right) \\
+ \;& q_j\left[\max\left[V_j^{u}\left(b_j\right), V_j^{u,-l}\left(z, I_i^{-l}, b_j\right)\right] - V_j^{l,-l}\left(z, I_i^{-l}, I_j^{l}\right)\right] \mathbb{1}\left[l = e\right] \\
+ \;& q_i\left[\max\left[V_j^{l}\left(I_j^{l}\right), V_j^{l,u}\left(z, b_i, I_j^{l}\right)\right] - V_j^{l,-l}\left(z, I_i^{-l}, I_j^{l}\right)\right] \mathbb{1}\left[-l = e\right]
\end{aligned}
$$

Go back

The Surplus of Marriage

- independent of income due to quasi-linearity of utility, strictly increasing in z.

$$
\begin{aligned}
\left[r+\delta+q_i+q_j\right] S_{ij}^{-ll}(z) &= v_{ij}^{-ll}(z) + \delta \int_{z_{ij}^{-ll}}^{\infty} S_{ij}^{-ll}\left(z'\right) dG\left(z'\right) \\
\textit{Gains from search for } i \Leftarrow &+ \frac{c'(\widehat{\sigma}_{i,j}^{-l,l})^{1+\kappa}}{1+\kappa} - \frac{c'(\widehat{\sigma}_{i}^{-l})^{1+\kappa}}{1+\kappa} \\
\textit{Gains from search for } j \Leftarrow &+ \frac{c'(\widehat{\sigma}_{j,i}^{l,-l})^{1+\kappa}}{1+\kappa} - \frac{c'(\widehat{\sigma}_{j}^{l})^{1+\kappa}}{1+\kappa} \\
&+ q_i \max\left[0, S_{ij}^{ul}(z)\right] + q_j \max\left[0, S_{ij}^{-lu}(z)\right] \\
&- \lambda_{ij}\beta_i \int_j \sum_{l\in\{u,e\}} s_j^l \int_{z_{ij}^{-ll}}^{\infty} S_{ij}^{-ll}\left(z'\right) dG\left(z'\right) dj \\
&- \lambda_{ij}\beta_j \int_i \sum_{-l\in\{u,e\}} s_i^{-l} \int_{z_{ij}^{-ll}}^{\infty} S_{ij}^{-ll}\left(z'\right) dG\left(z'\right) di
\end{aligned}
$$

Solution Method

- Linear grids with, 1×1, 4×4, 5×5, 20×20 nodes.
- Three fixed point systems, alternating solution algorithm.
  1. Initialize the model.
  2. Find fixed point of first system of equations:
     - 16 integrated surplus equations.
  3. Find fixed point of second system of equations:
     - Compute reservation wages and search intensities.
     - Find the z_{ij}^{ll} thresholds at the point where the surplus is zero.
  4. z_{ij}^{ll} determine $\alpha_{ij}^{ll} \equiv \left(1 - G\left(z_{ij}^{ll}\right)\right)$, which determine m_{ij}^{ll}.
  5. Use flow equations and exog. distributions of i, j to find s_i^l, s_j^l.
  6. Go back to step 2. Repeat until convergence.

Go back

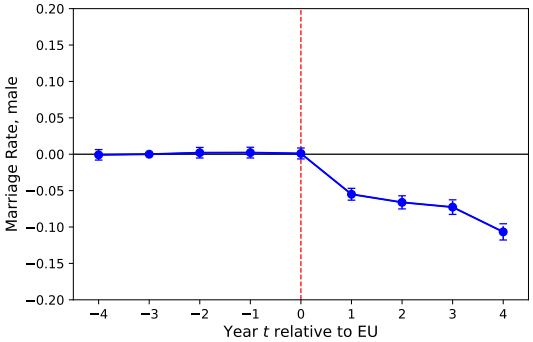
Yearly transition probability - Example

$$
\begin{aligned}
\Pr\left[s_j^u \to \int_i \sum\nolimits_{-l} m_{ij}^{-le} di\right] &= \int_0^1 \lambda_j^u e^{-\lambda_j^u t} dt \int_0^1 \tau_j^u e^{-\tau_j^u t} dt \\
&\quad + \int_0^1 \tau_j^u e^{-\tau_j^u t} \left(\int_t^1 \lambda_j^e e^{-\lambda_j^e x} dx - \int_t^1 \lambda_j^u e^{-\lambda_j^u x} dx \right) dt \\
&\quad + \int_0^1 \lambda_j^u e^{-\lambda_j^u t} \left(\int_t^1 \widehat{\tau}_{j,i}^{u,-l} e^{-\widehat{\tau}_{j,i}^{u,-l} x} dx - \int_t^1 \tau_j^u e^{-\tau_j^u x} dx \right) dt, \\
&= \frac{\tau_j^u}{\lambda_j^e + \tau_j^u} \left(1 - e^{-\left(\lambda_j^e + \tau_j^u\right)}\right) - \left(1 - e^{-\tau_j^u}\right) e^{-\lambda_j^e} \\
&\quad + \frac{\lambda_j^u}{\lambda_j^u + \widehat{\tau}_{j,i}^{u,-l}} \left(1 - e^{-\left(\lambda_j^u + \widehat{\tau}_{j,i}^{u,-l}\right)}\right) - \left(1 - e^{-\lambda_j^u}\right) e^{-\widehat{\tau}_{j,i}^{u,-l}}.
\end{aligned}
$$

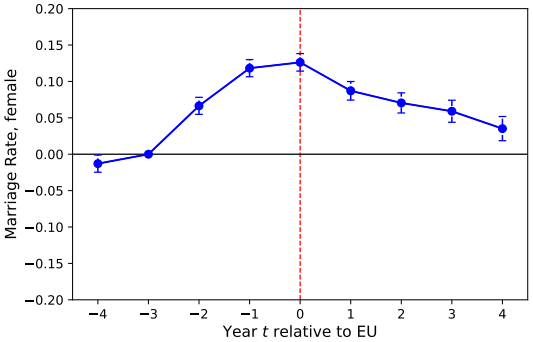
Go back

Event Study: Marriage Rate around EU Transition

Male



Female



- Relative to matched control group: no EU Transition, matched in $t-3$.

Go back

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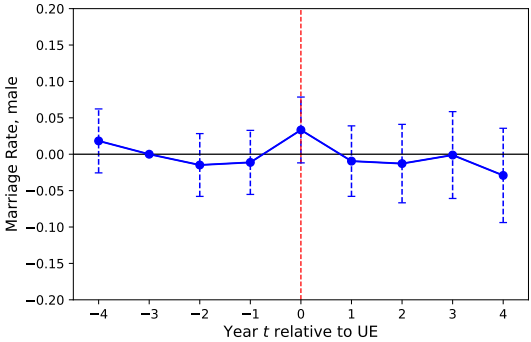
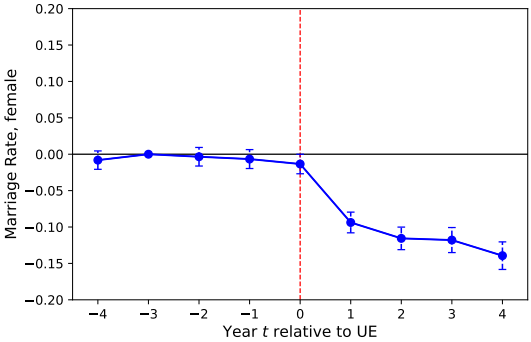


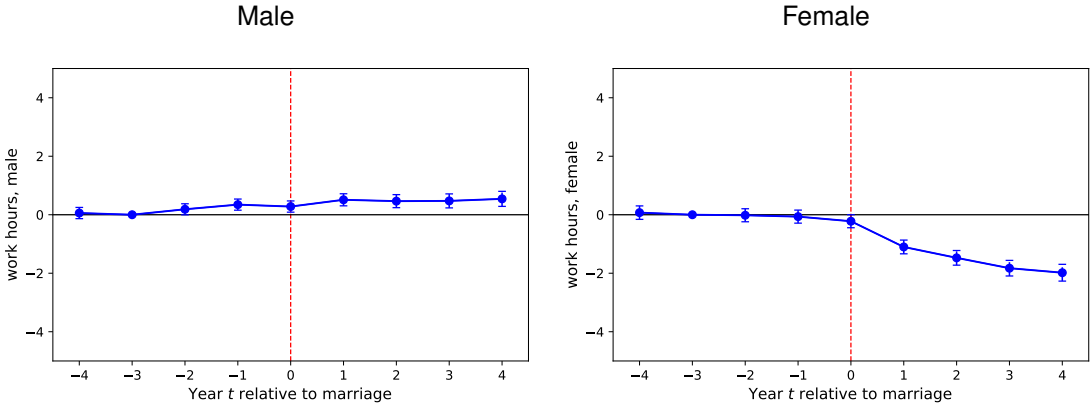
Female



- Relative to matched control group: no UE Transition, matched in $t-3$.

Go back

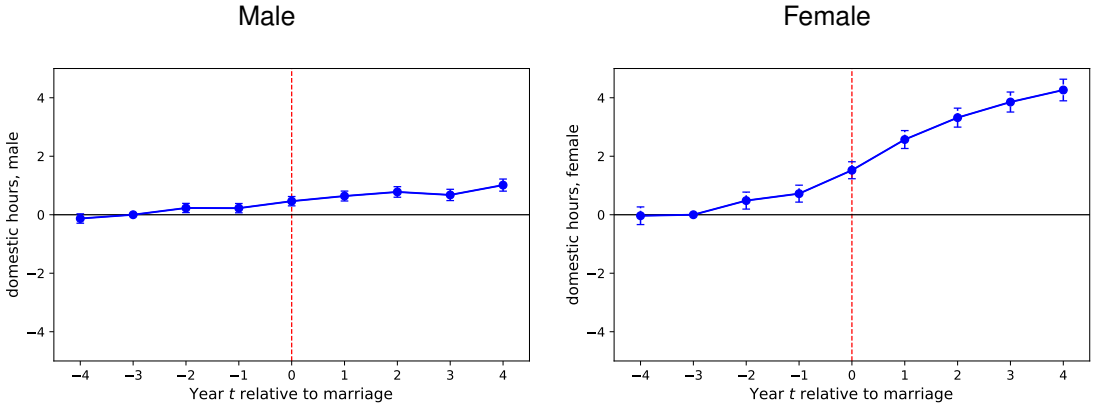
Event Study: Work Hours around Marriage



- Relative to matched control group: no divorce, matched in $t-3$.

Go back

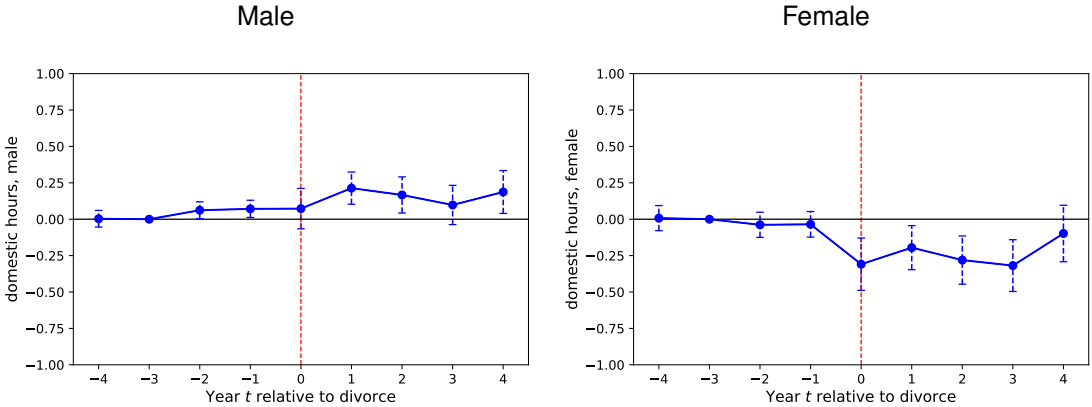
Event Study: Domestic Hours around Marriage



- Relative to matched control group: no divorce, matched in $t-3$.

Go back

Event Study: Domestic Hours around Divorce



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Go back

Event Study: EE Rate around Divorce

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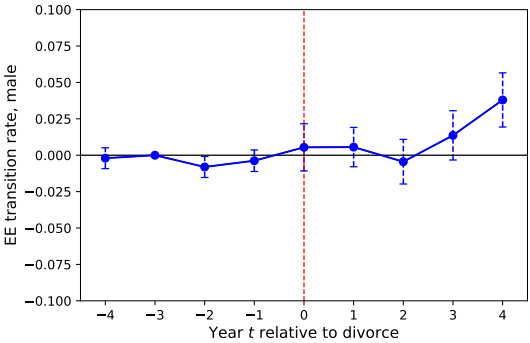
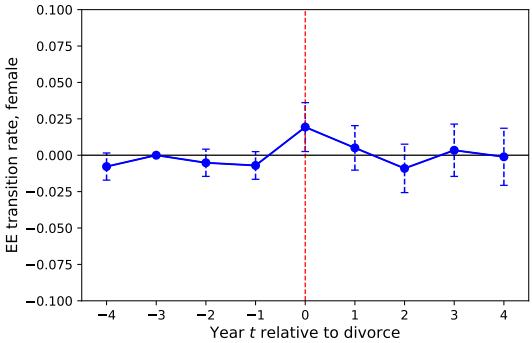


Female



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Go back

Identification

- Marriage market transitions identify the parameters $\{\lambda^{\cdots}, \mu_z, \sigma_z, \delta\}$.
- Labor market transitions identify the parameters $\{\beta_{\mu\ldots}\}$, $\{\beta_{\vdots\vdots\ldots}\}$, and $\{\beta_{q\ldots}\}$.
- The reservation wage of unemployed individuals is a function of the difference in working hours and the household public good.
- The job finding probability linked to a certain reservation wage therefore identifies the preference parameters $\{\zeta_x, \zeta_y\}$ given the observed difference in working hours $l_j^u - l_j^e$.
- Household public good production parameters $\{\alpha_x, \alpha_y\}$ cannot be directly identified, since we do not observe the difference in the household public good $X_j^u - X_j^e$.
- To identify household public good parameters via job finding, we need to tie down the household public good for one labor market status.
- We use the time input into household production while being unemployed.

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