# 'Family Risk Sharing'

'When the Shock Hits the Knot: Individual Consumption Insurance Among Spouses'

'When the Shock Hits the Knot: bargaining and family risk sharing'

B-C-V

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## 1 Summary statistics and life-cycle behavior

Table 1: Summary statistics

	Household assets (1)	Household earnings (2)	Wife, Private consumption (3)	Husband, Private consumption (4)	Home good expenditure (5)
Mean	9.265	2.432	0.807	1.328	1.031
Gini	0.645	0.470	0.387	0.382	0.265
Top $1\%$ share	0.068	0.045	0.037	0.036	0.026

NOTES: assets and earnings are measure across the population regardless of marital status, while other variables are measured among married households.

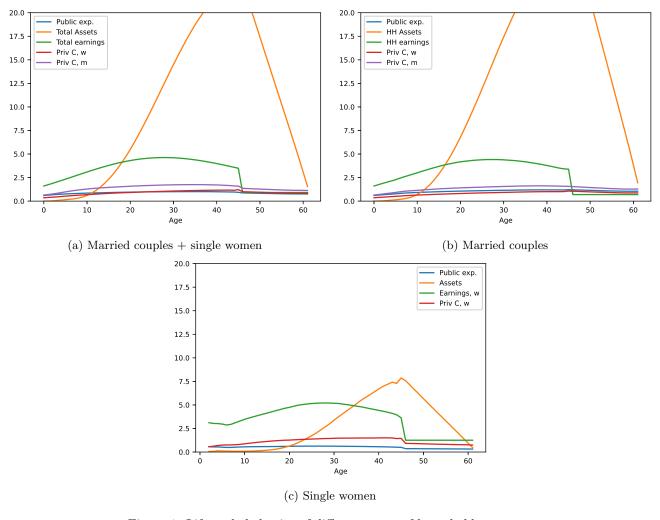


Figure 1: Life-cycle behavior of different types of household, averages

### 2 Marital surplus, renegotiation and divorce

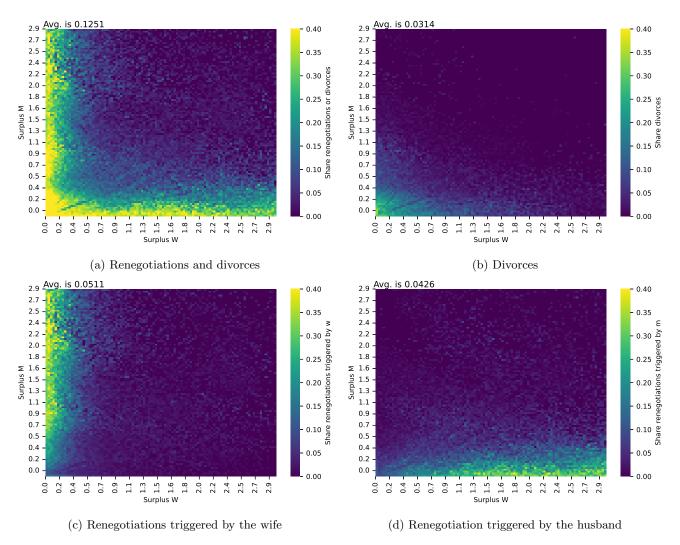


Figure 2: Marital surplus, renegotiation and divorce

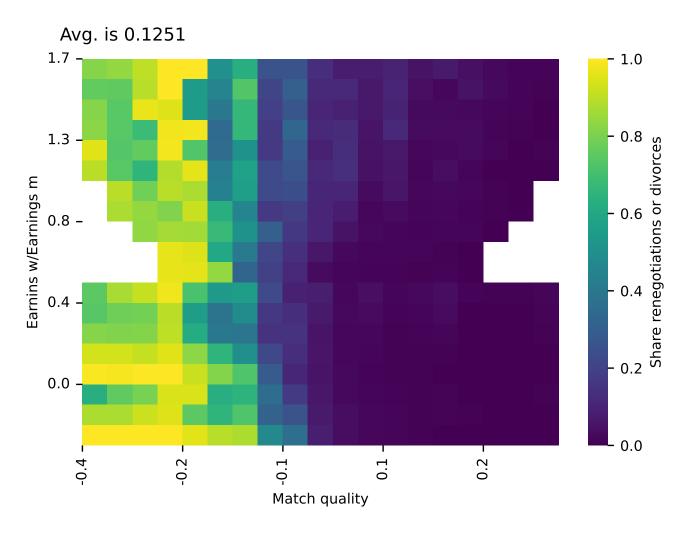


Figure 3: Share or divorces and renegotiations given relative earnings and match quality

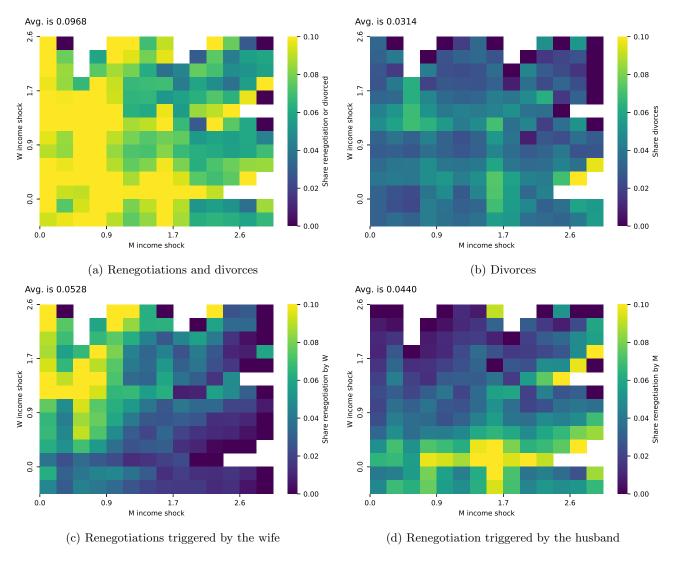


Figure 4: M and W income shocks, renegotiation and divorce

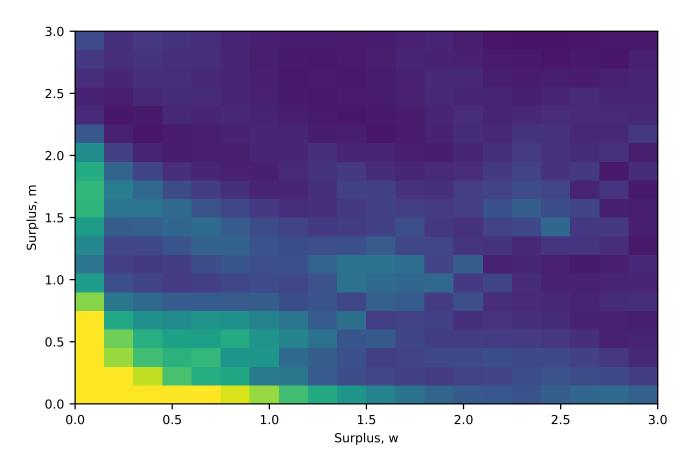


Figure 5: Marital surplus distribution (value of staying married - value of divorce)

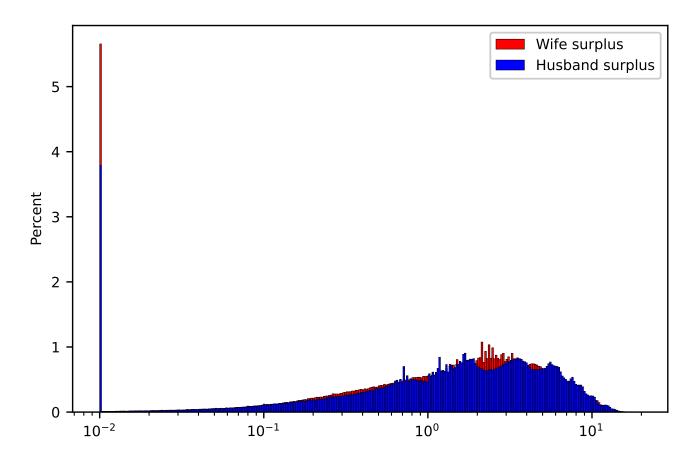


Figure 6: Marital surplus distribution

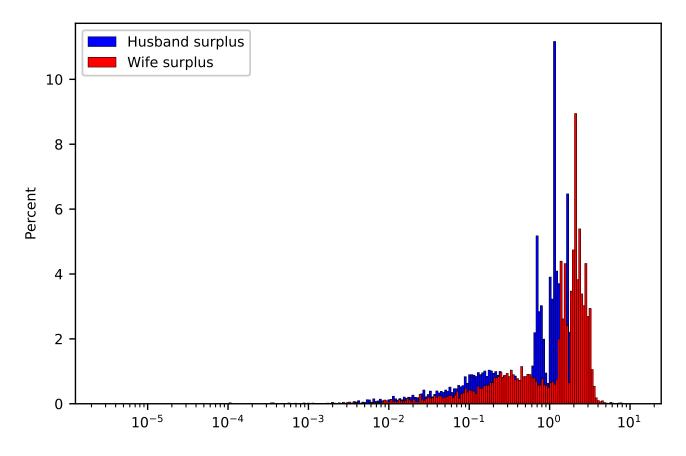


Figure 7: Marital surplus distribution at meeting

#### Something we have learned

- The match surplus at meeting is higher for women (Figure 7): this is an implication of the (close to) symmetric nash bargaining (SNB) and women earning less than men. SNB allocates a higher share of the surplus to the spouse having lower earnings.
- Women are more likely to hit the participation constraint than men (Figure 6). Since, again, women's marginal utility is lower for women, the same shock implies a larger change in reservation utilities for women than for men.
- If we impose a non-symmetric nash bargaining, the gender who get a higher weight will be less likely to hit participation constraints.
- If we close the gender wage gap, the patterns in renegotiation and surplus share distribution become gender symmetric

## 3 Consumption insurance regressions

Table 2: Pass-through of changes in income on consumption and consumption shares, using changes in...

	Total Exp (1)	Common Exp (2)	Husband Exp (3)	Wife Exp (4)	Wife share (5)
total income	0.393	0.355			
wife income	0.142	0.138	0.075	0.220	0.145
husband income	0.188	0.186	0.206	0.164	-0.042

NOTES: Coefficient interpretation: 1% change in income leads to X% change in expenditure. Coefficients associated to changes in the wife income are computed using women working in two consecutive periods.

Table 3: Pass-through of changes in income on consumption and consumption shares, using **transitory** changes in...

	Total Exp (1)	Common Exp (2)	Husband Exp (3)	Wife Exp (4)	Wife share (5)
total income	0.128	0.116			
wife income	0.034	0.032	-0.022	$\boldsymbol{0.076}$	0.098
husband income	0.080	0.079	0.088	$\boldsymbol{0.058}$	-0.030

NOTES: Coefficient interpretation: 1% change in income leads to X% change in expenditure. Coefficients associated to changes in the wife income are computed using women working in two consecutive periods.

Table 4: Pass-through of changes in income on consumption and consumption shares, using **persistent** changes in

	Total Exp (1)	Common Exp (2)	Husband Exp (3)	Wife Exp (4)	Wife share (5)
total income	0.327	0.315			
wife income	0.430	0.417	0.350	0.587	0.238
husband income	0.303	0.302	0.331	$\boldsymbol{0.275}$	-0.056

NOTES: Coefficient interpretation: 1% change in income leads to X% change in expenditure. Coefficients associated to changes in the wife income are computed using women working in two consecutive periods.

Table 5: MPC calculated as in BPP, using transitory changes in...

	Total Exp	Common Exp	Husband Exp	Wife Exp
	(1)	(2)	(3)	(4)
husband income	0.057	0.059	0.062	0.009
wife income	0.037	0.034	-0.052	0.089
total income	0.337	0.296	0.493	0.556

 $\operatorname{Notes}$  : the consumption insurance parameters displayed in the table are computed as

$$\frac{E\left(\Delta c_{t}\Delta y_{t+1}\right)}{E\left(\Delta y_{t}\Delta y_{t+1}\right)},$$

where  $y_t$  can the income of the husband, wife or the sum of the two (total). Variables  $c_t$  can be the total, common, husband or wife' expenditures. Coefficients associated to changes in the wife income are computed using women working in two consecutive periods.

Table 6: Consumption insurance to persistent income shocks, calculated as in BPP, using persistent changes in...

	Total Exp (1)	Common Exp (2)	Husband Exp (3)	Wife Exp (4)
husband income	0.370	0.365	0.418	0.354
wife income	0.431	0.420	0.379	0.598
total income	0.541	0.516	0.636	0.690

Notes: the consumption insurance parameters displayed in the table are computed as

$$\frac{E\left(\Delta c_{t}\left(\Delta y_{t-1}+\Delta y_{t}+\Delta y_{t}\right)\right)}{E\left(\Delta y_{t}\left(\Delta y_{t-1}+\Delta y_{t}+\Delta y_{t}\right)\right)},$$

where  $y_t$  can the income of the husband, wife or the sum of the two (total). Variables  $c_t$  can be the total, common, husband or wife' expenditures. Coefficients associated to changes in the wife income are computed using women working in two consecutive periods.

Table 7: Women's employment response (in percentage points) to different types of income shocks

Transitory shocks		Persistent shocks		Transitory+persistent shocks	
Wife	Husband	Wife	Husband	Wife	Husband
(1)	(2)	(3)	(4)	(5)	(6)
0.588	-0.068	0.400	-0.242	0.500	-0.145

NOTES: the income shocks relate to potential  $log\ income\ y$ . In the case of women, a positive potential income shocks does not translate in more earnings if the women does not work. The numbers displayed in the table are OLS coefficients:

$$\frac{E(\Delta y_t \ \Delta W L P_t)}{E(\Delta y_t)},$$

where  $\Delta WLP$  is the change in women's employment over two consecutive periods.

Table 8: Pass-through of changes in income on consumption and consumption shares, using changes in...

	Total Exp (1)	Common Exp (2)	Husband Exp (3)	Wife Exp (4)	Wife share (5)
total income	0.282	0.200			
wife income	0.346	0.237	0.071	0.038	0.258
husband income	0.157	0.124	0.026	0.007	-0.124

Notes: Coefficient interpretation: 1 yen change in income leads to X yen change in expenditure.