'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 | 7.629 | 2.221 | 0.199 | 0.413 | 2.270 |
| Gini | 0.683 | 0.493 | 0.566 | 0.450 | 0.348 |
| Top 1% share | 0.075 | 0.052 | 0.064 | 0.048 | 0.034 |

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

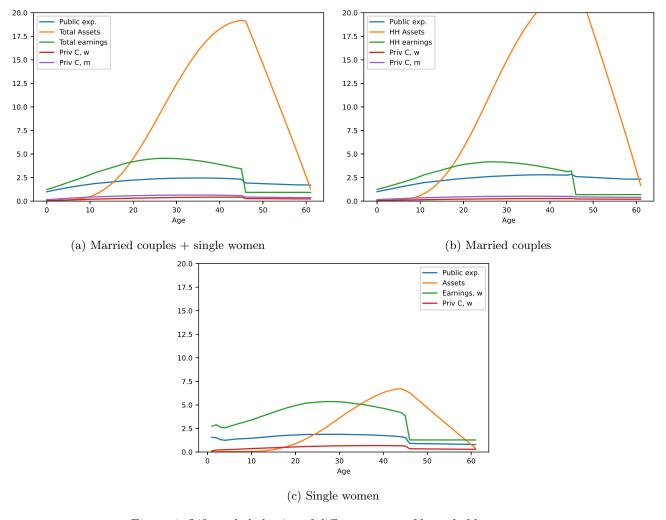


Figure 1: Life-cycle behavior of different types of household, averages

2 Log consumption and income growth

Table 2: Moments of the log growth of the variables reported in the rows

| | Mean | Variance | Skeweness | Kurtosis |
|-----------------------------------|-------|----------|-----------|----------|
| Wife, private consumption | 0.037 | 0.079 | 1.091 | 39.385 |
| Husband, private consumption | 0.030 | 0.054 | -0.006 | 8.334 |
| Wife share of private consumption | 0.007 | 0.044 | 2.051 | 180.207 |
| Home good expenditure | 0.029 | 0.025 | 0.434 | 8.920 |
| Total consumption | 0.030 | 0.029 | 0.396 | 8.334 |
| Wife, earnings | 0.024 | 0.056 | -0.034 | 9.250 |
| Husband, earnings | 0.018 | 0.049 | -0.015 | 7.199 |

Notes: sample of those who stay married over two consecutive periods.

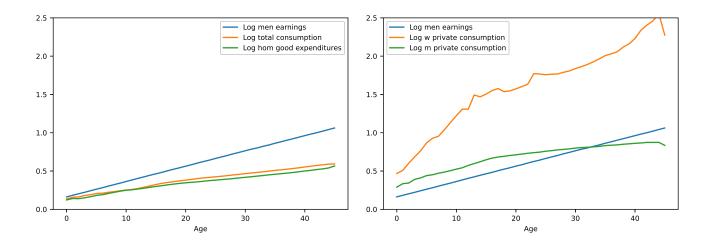


Figure 2: Variance of log earnings and consumption by age

3 Marital surplus, renegotiation and divorce

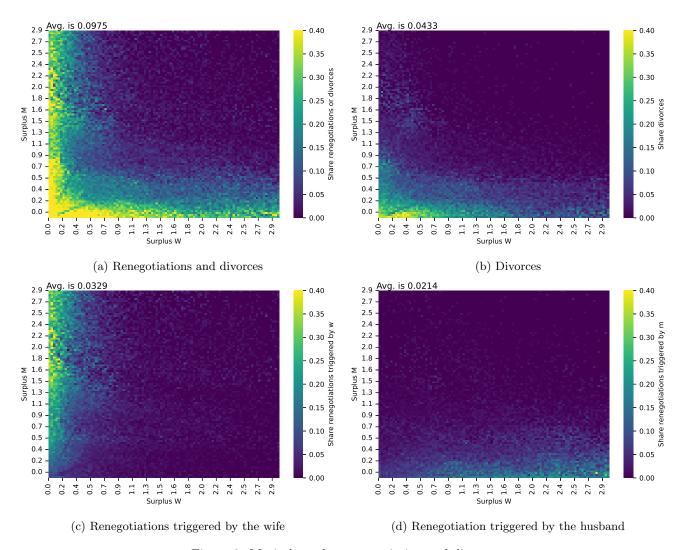


Figure 3: Marital surplus, renegotiation and divorce

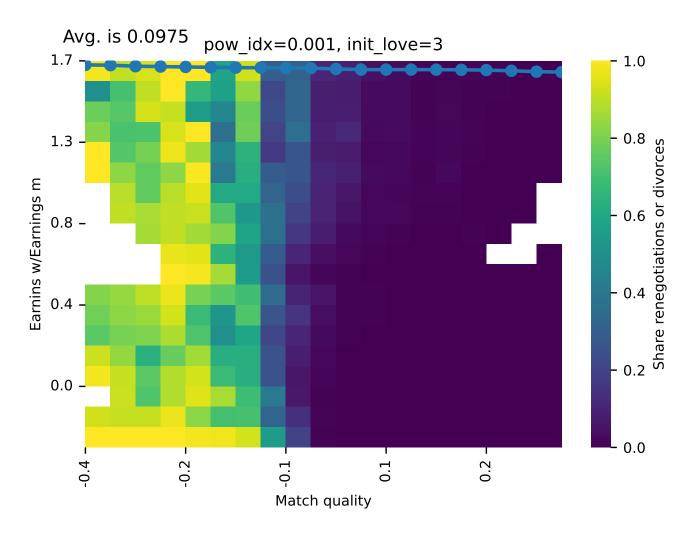


Figure 4: Share or divorces and renegotiations given relative earnings and match quality

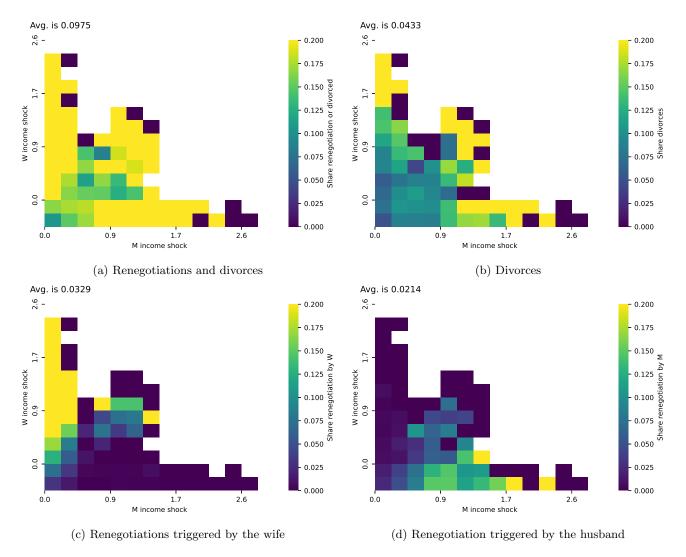


Figure 5: M and W income shocks, renegotiation and divorce

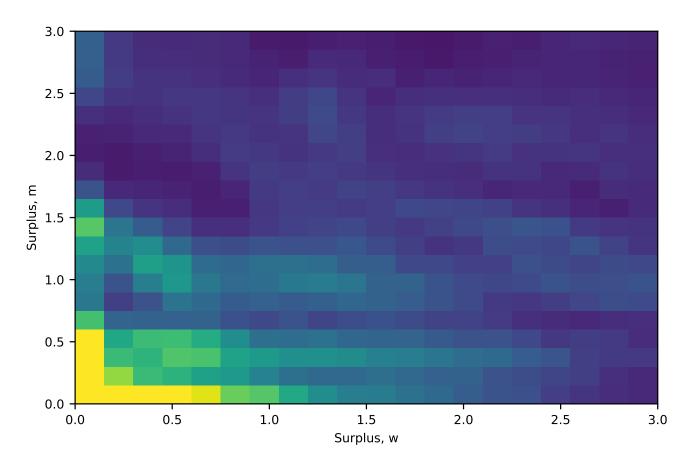


Figure 6: Marital surplus distribution (value of staying married - value of divorce)

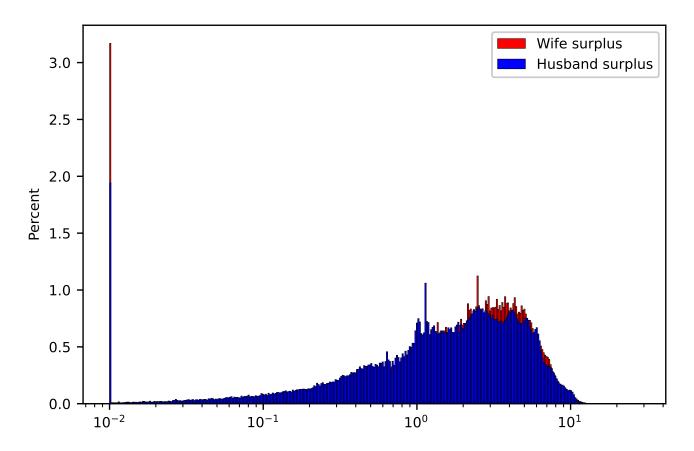


Figure 7: Marital surplus distribution

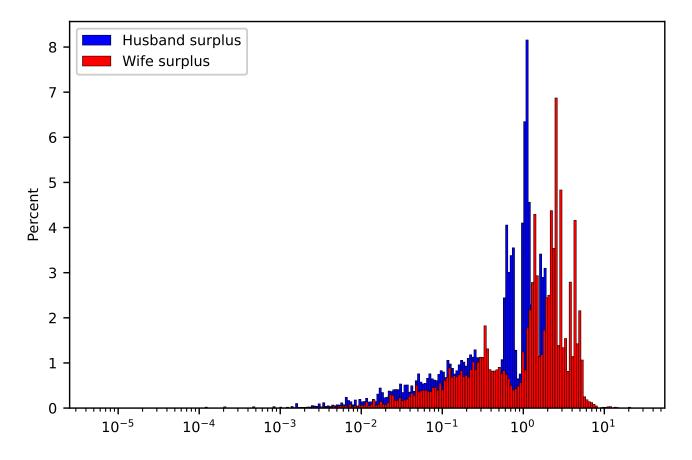


Figure 8: Marital surplus distribution at meeting

Something we have learned

- The match surplus at meeting is higher for women (Figure 8): 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 7). Since, again, women's marginal utility is higher than for men, 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 gets 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
- To be checked with the policy experiment how labor supply is reacting. If, when outside option for women improve, labor supply goes down, our model cannot replicate it.
- Excess kurtosis of women consumption seems to be driven by renegotiations

4 Consumption insurance regressions

Table 3: 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 | 0.404 | 0.367 | | | |
| wife income | 0.170 | 0.165 | 0.143 | $\boldsymbol{0.227}$ | 0.084 |
| husband income | 0.194 | 0.191 | 0.215 | 0.184 | -0.031 |

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 **transitory** changes in...

| | Total Exp (1) | Common Exp (2) | Husband Exp (3) | Wife Exp (4) | Wife share (5) |
|----------------|---------------|----------------|-----------------|--------------|----------------------|
| total income | 0.129 | 0.115 | | | |
| wife income | 0.041 | 0.039 | 0.011 | 0.069 | $\boldsymbol{0.058}$ |
| husband income | 0.059 | 0.058 | 0.065 | 0.045 | -0.020 |

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: 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 | 0.371 | 0.356 | | | |
| wife income | 0.467 | 0.454 | 0.445 | 0.591 | 0.146 |
| husband income | 0.341 | 0.337 | 0.376 | 0.333 | -0.043 |

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 6: MPC calculated as in BPP, using transitory changes in...

| | Total Exp (1) | Common Exp (2) | Husband Exp (3) | Wife Exp (4) |
|----------------|---------------|----------------|-----------------|--------------|
| husband income | 0.039 | 0.041 | 0.044 | 0.001 |
| wife income | 0.041 | 0.039 | -0.012 | 0.083 |
| total income | 0.319 | 0.279 | 0.473 | 0.521 |

 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 7: 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 | 0.405 | 0.397 | 0.462 | 0.404 |
| wife income | 0.476 | 0.464 | 0.484 | 0.583 |
| total income | 0.583 | 0.554 | 0.690 | 0.745 |

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

| Transitory shocks | | Persistent shocks | | Transitory+persistent shocks | |
|---------------------|-------------|-------------------|---------|------------------------------|-------------|
| Wife | Husband (2) | Wife (3) | Husband | Wife | Husband (6) |
| $\frac{(1)}{0.641}$ | -0.054 | 0.449 | -0.183 | 0.550 | -0.112 |

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 ΔWLP is the change in women's employment over two consecutive periods.

Table 9: 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 | 0.315 | 0.224 | | | |
| wife income | 0.399 | 0.273 | 0.081 | 0.044 | -0.193 |
| husband income | 0.161 | 0.127 | $\boldsymbol{0.027}$ | 0.007 | -0.057 |

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