

Family bargaining and the gender gap in informal care

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Introduction: Long-term care, the role of the family

- Long-term care (LTC) needs represent a significant financial risk, most of which is not covered by social or private insurance
- Currently the family is the main provider care (Norton, 2016)
- Daughters (and daughters in law) have been shown to provide more care than sons (Dentinger and Clarkberg, 2002, Schmid *et al.*, 2012)
"The best long-term care insurance is a conscientious daughter" (Bott *et al.*, 2017)
- Family norms + lower job market opportunities
 - Gifts/bequests from parents...
 - ... but reduce their labor market participation
 - ... and psychological burden and other hidden costs (Colombo *et al.*, 2011)

Introduction: the role of the government

- Public transfers conditional on informal care may exacerbate the gender gap in provision (Jacobsson *et al.*, 2016)
- Multiple roles of the government
 - Provide insurance (if private markets are absent or thin)
 - Redistribute across generations
 - Redistribute across families

OUR QUESTION: what is the optimal LTC policy if families differ in the gender of their children and daughters provide more informal care?

What do we do?

- Cooperative intergenerational family model (Cremer and Pestieau, 1993)
 - Children provide care and receive transfers from parents
 - Abstract from gender gaps due to family norms (Barigozzi *et al.*, 2020)
- Daughters have **lower bargaining weights** and **lower job market opportunities** than sons
- Assume that informal care and intergenerational transfers are observable and contractible by the government
- Two types of policy:
 - **Tagging policy**: public transfers depend on gender of children
 - **Gender neutral policy**: public transfers cannot depend on gender of children

Preview of results

- ① Laissez faire
 - Transfers increase in bargaining weight and decrease in labor market productivity
 - Daughters are always worse off than sons
- ② Tagging policy
 - Can decentralize the first best (full redistribution and insurance) through transfers to dependent, children, and young parents
 - If children have low bargaining weights, transfers should be subsidized and informal care taxed
- ③ Gender neutral policy
 - Now policy must be incentive compatible and prevent mimicking from families with sons
 - Transfers are distorted to relax IC constraints
 - Informal care of daughters is distorted up

The model

- Each parent has one child of gender i , either a daughter ($i = g$) or a son ($i = b$)
 - **Parents:** exogenous income y when young, save k , and are dependent when old with probability π
 - In case of dependence, get informal care a and transfer τ to child
- Expected utility

$$V_i^P = U(y - k_i) + (1 - \pi) U(k_i) + \pi H(k_i + \gamma(a_i) - \tau_i)$$

Assume $H'(x) > U'(x)$, $\gamma' > 0$, $\gamma'' < 0$

- **Children:** allocate one unit of time to labor and informal care. **Wage** $w_g < w_b$. Expected utility:

$$V_i^C = \pi u(\tau_i + w_i(1 - a_i)) + (1 - \pi)u(w_i)$$

Laissez faire

- The family maximizes

$$(1 - \alpha_i)V_i^P + \alpha_i V_i^C$$

with $\alpha_g < \alpha_b$

- Optimal informal care

$$\gamma'(a_i) = w_i$$

- Does not depend on the bargaining weights, only the wage
- Daughters have lower marginal cost and provide more care
- Optimal transfer satisfies

$$\frac{H'(k_i + \gamma(a_i) - \tau_i)}{u'(\tau_i + w_i(1 - a_i))} = \frac{\alpha_i}{1 - \alpha_i}$$

- Marginal utilities equalized only if $\alpha_i = 1/2$

Laissez faire

PROPERTIES

- *Informal care decreases with the child's wage, but does not depend on the bargaining weights*
- *The transfers to children decrease with their wage and increase with their bargaining weight.*
- *Then, the comparison between τ_b and τ_g is ambiguous.*
- *Daughters are always worse off than sons.*

First best

- The social planner is utilitarian and maximizes

$$\sum_{i=g,b} V_i^P + V_i^C$$

- In the first best

$$U'(c_i^1) = U'(c_i^h) = u'(d_i^h) = H'(c_i^s) = u'(d_i^s) \quad i = b, g$$

$$w_i = \gamma'(a_i).$$

- Marginal utilities equalized across families, states of nature, and generations
- Informal care: same trade-off as in laissez faire

Tagging

- Set of gender-dependent transfers
 - $T_i^s(a_i, \tau_i)$ to dependent parents
 - $L_i^h(a_i, \tau_i)$ to children of non-dependent parents
 - $T_i^1(a_i, \tau_i)$ to young parents
- Equivalently: set a_i and τ_i , and impose lump-sum transfers T_i^s , L_i^h , and T_i^1 .
- Savings k_i , chosen freely by family. Family problem:

$$\max_{k_i} (1 - \alpha_i) [U(y - k_i + T_i^1) + (1 - \pi) U(k_i) + \pi H(k_i + \gamma(a_i) - \tau_i) + T_i^s] \\ + \alpha_i [\pi u(\tau_i + w_i(1 - a_i)) + (1 - \pi) u(w_i + L_i^h)].$$

Tagging: results

The first best can be implemented by

- *A gender-specific transfer T_i^s to dependent parents (**a social long-term care benefit**) function of a and τ .*
- *A gender-independent lump-sum transfer for young parents (**an insurance premium**)*
- *A gender-specific transfer to children of healthy parents (the ones that receive no family transfers)*

The first best can also be decentralized by linear instruments.

Tagging: results

Marginal transfers to dependent parents

$$\frac{\partial T_i^s}{\partial \tau_i} = \frac{1 - 2\alpha_i}{1 - \alpha_i}$$

$$\frac{\partial T_i^s}{\partial a_i} = \frac{2\alpha - 1}{1 - \alpha} w_i$$

- When the child has a lower bargaining weight than the parent
 - Transfers should be subsidized (at the margin) and thus encouraged
 - Informal care should be taxed (at the margin) and thus discouraged
- When the child has the biggest bargaining weight, the signs of these marginal transfers are reversed.
- INTUITION: Parents' and children's consumption levels are weighted differently by family and by social planner → need to redistribute across generations (paternalism)

Gender neutral policy

- Gender specific policies may be politically non-feasible
- Can offer a menu of contracts that is incentive compatible
- In the first-best implementation, all families would select the policy designed for families with daughters
→ only binding IC constraint is the one of families with sons
- The optimal gender neutral solution solves

$$\begin{aligned} \max_{T_i^1, T_i^s, L_i^h, L_i^s, \tau_i, a_i} \sum_{i=g,b} (V_{ii}^P + V_{ii}^C) \\ \text{s.t. } (1 - \alpha_b)V_{bb}^P + \alpha_b V_{bb}^C \geq [(1 - \alpha_b)V_{bg}^P + \alpha_b V_{bg}^C], \\ \sum_{i=g,b} [T_i^1 + \pi(T_i^s) + (1 - \pi)L_i^h] = 0. \end{aligned}$$

Gender neutral policy: results

- The first-best solution cannot be implemented by a gender-neutral policy
- **Informal care** is not distorted and at its FB level for sons (the “top family”),
- Informal care is distorted upwards for families with daughters
- INTUITION: relax IC constraints

Gender neutral policy: results

- The optimal gender-neutral provides full insurance against the risk of dependence for both generations
- However, the allocation across generations is distorted
- **Intergenerational transfers** distorted in both families as long as children and parents have different bargaining weights
- Specifically, when sons have a higher weight ($\alpha_b > 1/2$) than their parents
 - Parents of sons will receive a lower share of the surplus than in the FB
 - Parents of daughters will receive a higher share of the surplus than in the FB
- INTUITION: Providing incentives and relax IC constraints is not fully compatible with paternalism

Concluding comments

- Daughters are always worse off than sons in the laissez faire: provide more care but are not fully compensated
- Policies depending on gender of caregivers can redistribute not only across states of the world, but also across generations
- Gender neutrality hurts families with daughters and imply more informal care by daughters
- Future research: introduce private insurance markets