What Will We Witness When We Seriously Try to Boost Fertility?
—— Normative constraints against universal child benefits ——

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Is sociology useless?

Survey data analysis

Findings (about causality)

→ So What?
IIDCM
Ideology-Institution Dynamics with Causal Modeling
Causal modeling

Model -> Criterion -> Rule

Ideaology -> Institution

Real

Result -> Action
Japan Sociological Society meeting

Sep 20 Waseda

http://tsigeto.info/15x
Glossary

CFR    RpL
WLB    UCB
PPR    RE
Question

How to raise fertility up to RpL?

From policymaker’s view
Distribution of child number

CFR = 1.39

RpL = 2.08

Women born 1975
(Projection by IPSS, 2010. Medium level)
Desired child number

National Fertility Survey 2010
Combined (1) married wives and (2) unmarried women under 35, weighted 7:3

Incentive to have children more than desired

RpL = 2.08

Mean = 2.32
A WLB-resistant society

Child-care leave
Growth in day-care capacity
But low fertility

Why is WLB so ineffective?
Answer 1: Because people do not want

Women want to continue career: 30%
Women continuing career: 20%
Children (aged 1-2) in day-care: 30%

Data: National Fertility Survey 2010,
Answer 2: Fundamental limit in WLB effect

Model of equivalent income

\[
\frac{y(x)}{s} = \frac{wm + bx}{\sqrt{m + x}}
\]

- \(x\): number of children
- \(y\): equivalent income
- \(s\): income when single and no child
- \(b/s\): benefit per child
- \(w\): WLB effect
- \(m\): number of adult member in household
2-parent ($m=2$)  

1-parent ($m=1$)

No incentive except 1st child for 2-parent with WLB
WLB justified by ideology

Model: WLB is effective
Criterion: CFR=2.08
Rule: Leave; Day-care

More children
Balanced work-life

Ideology
Real
Ideological feedback

Model: WLB is ineffective

Criterion: CFR = 2.08

Rule: Leave; Day-care

Ideology: Real

More children

Balanced work-life
Sankei’s proposal

￥10 mil. for 3rd and subsequent children
Effective?

500,000 yen per child (3rd, 4th....) × 20 years

Incentive
if \( b > 0.15 \)

Income < 3 mil yen
Distribution of income of young men

National Fertility Survey 2010, unmarried men under 35

(in 10,000 yen)
Distribution of child number

CFR = 1.39  RpL = 2.08

Women born 1975 (Projection by IPSS, 2010. Medium level)
Effect expected for Sankei’s proposal

$\text{RpL} = 2.08$

$\text{CFR} = 2.04$
Expected effect of UCB

- $m=2, b=0.54$
- $m=1, b=0.85$
$\text{RpL} = 2.08$  

$\text{CFR} = 2.92$
How much does it cost?

**Threshold:**

\[ b = 0.83 \] (for 1-parent)

**Sufficient level:**

1.6 million yen/year (per child)

= About \( 0.4 \times \text{GDP per capita} \)
Normative constraint 1:

Who is responsible to maintain child?

**PPR:** Parents’ primary responsibility to maintain children

Incompatible with UCB
Normative constraint 2:
Reproduction egalitarianism (RE)
Class Differentials

Rich ← Poor
(smaller $b$) (greater $b$)

RpL = 2.08
CFR = 2.92
### UCB on IIDCM framework

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<thead>
<tr>
<th>Model</th>
<th>Criterion</th>
<th>Rule</th>
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<tbody>
<tr>
<td>UCB as incentive</td>
<td>CFR = 2.08</td>
<td>UCB</td>
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<tr>
<td>Differential</td>
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<td>X</td>
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<td>incentive</td>
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**Ideology**
Probable scenario 1
High UCB and drastic changes of family
- Govt maintains children
- Social div of reproduction

Probable scenario 2
- Ineffective WLB
- Low fertility
- Unchanged family