Economic Gains from a More Vigorous Implementation of the RPRH Law

Michael R.M. Abrigo, Aniceto C. Orbeta and Alejandro N. Herrin
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23-27 July 2018
1. Some basic indicators
Progress in RPRH indicators: Total Fertility Rate

Poverty incidence among families (percent)

Poverty incidence and distribution of families by family size: 1991 and 2015

Poverty Incidence and Distribution of Families by Family Size, 1991 and 2015

Family size

Poverty incidence (%)

Distribution of families (%)
2. Economic gains from RPRH implementation: Key pathways
Economic gains from RPRH implementation: Key pathways

- **Sexuality education**
  - Prevent early childbearing
  - Increase education, lifetime earnings

- **FP**
  - Achieve wanted births, reduce high risk births
  - Increase investments per child; savings

- **MCHN**
  - Reduce risk of maternal and neonatal mortality
  - Improve child health, survival, education

- **Economic growth and poverty reduction**
  - Reduced child stunting
  - Improve child health, education, productivity

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3. Estimating economic gains: RPRH principles and national policy goals, National Transfer Accounts (NTA) framework, and demographic dividends
3a. RPRH principles and national policy goals
Guiding principles of RPRH implementation

• “The State shall promote programs that enable individuals and couples to have the number and children they desire...” (Sec.3, (f)). “Each family shall have the right to determine its ideal family size” (Sec. 3, (k))

• “There shall be no demographic or population targets...” (Sec. 3, (l))

• “The provision of reproductive health care, information and supplies giving priority to poor beneficiaries as identified through the NHTS-PR and other measures of identifying marginalization must be the primary responsibility of the national government...” (Sec. 3, (g))
Achieving policy goals: Alternative scenarios

- Achieve wanted total fertility rate of 2.2 births per woman by 2022 (EO No. 12) and total fertility rate of 2.1 births per woman by 2025 (PDP 2017-2022)
- Delayed achievement of wanted total fertility rate of 2.2 per woman by 2032 and replacement fertility by 2035
- Focus RPRH implementation on poor families

![Total Fertility Rates and Total Wanted Fertility Rates by Wealth Quintile, NDHS 2013](chart.png)
**Achieving policy goals: Alternative scenarios**

<table>
<thead>
<tr>
<th>Year</th>
<th>UN Default</th>
<th>Medium PSA (with UN parameters)</th>
<th>Wanted TFR by 2022 and Replacement by 2025</th>
<th>Wanted TFR by 2032 and Replacement by 2035</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>2.93</td>
<td>3.00</td>
<td>3.00</td>
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<tr>
<td>2020</td>
<td>2.77</td>
<td>2.81</td>
<td>2.43</td>
<td>2.76</td>
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<tr>
<td>2025</td>
<td>2.64</td>
<td>2.62</td>
<td>2.10</td>
<td>2.53</td>
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<tr>
<td>2030</td>
<td>2.52</td>
<td>2.43</td>
<td>1.94</td>
<td>2.29</td>
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<tr>
<td>2035</td>
<td>2.41</td>
<td>2.24</td>
<td>1.86</td>
<td>2.10</td>
</tr>
<tr>
<td>2040</td>
<td>2.31</td>
<td>2.05</td>
<td>1.86</td>
<td>1.94</td>
</tr>
<tr>
<td>2045</td>
<td>2.23</td>
<td>1.86</td>
<td>1.86</td>
<td>1.86</td>
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</tbody>
</table>
3b. National Transfer Accounts Framework
Economic life cycle: Consumption (C) and labor income (Y), Philippines 2015

Per Capita Consumption and Labor Income, 2015

Aggregate Consumption and Labor Income, 2015
Effect of age structure on economic growth

\[
\frac{C(t)}{N(t)} = \left(1 - s(t)\right) \frac{Y(t)}{L(t)} \cdot \frac{L(t)}{N(t)}
\]

Aggregate consumption per effective consumer depends on labor productivity as affected by different factors, and the support ratio, the ratio of effective workers to effective consumers, which captures the effect of changing age structure on the economy.

In terms of growth rates:

\[
g \left[\frac{C(t)}{N(t)}\right] = g \left(1 - s(t)\right) \frac{Y(t)}{L(t)} + g \left[\frac{L(t)}{N(t)}\right]
\]

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Demographic transition and demographic dividend

Demographic Transition

Fertility Decline

Increased Longevity

Demographic Dividend

Support Ratio growth (and eventual decline)

Greater human capital investments

Capital accumulation

First Demographic Dividend

Second Demographic Dividend

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3c: Estimates of economic gain: Demographic dividends and poverty impact
Support ratio: Effective workers per effective consumers

Support Ratio

UN medium  PSA medium  RPRH 2022  RPRH 2032

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First and second demographic dividends

First Demographic Dividend: Growth in Consumption Per Effective Consumer

Second Demographic Dividend: Growth in Consumption Per Effective Consumer

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First and second demographic dividends

First Demographic Dividend: Growth in Consumption Per Effective Consumer

Second Demographic Dividend: Growth in Consumption Per Effective Consumer

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Total demographic dividend

Total Demographic Dividend: Growth in Consumption Per Effective Consumer

Demographic Dividend Index (2017=100)

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Total demographic dividend

Total Demographic Dividend: Growth in Consumption Per Effective Consumer

Demographic Dividend Index (2017=100)
Present value of demographic dividend and gain from early transition

### Present Value of Projected Demographic Dividend
*(2017 billion USD discounted at 5 percent per annum)*

<table>
<thead>
<tr>
<th></th>
<th>UN-medium</th>
<th>PSA-medium</th>
<th>RPRH2022</th>
<th>RPRH2032</th>
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</thead>
<tbody>
<tr>
<td>2018-2025</td>
<td>120.4</td>
<td>131.3</td>
<td>240.4</td>
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<tr>
<td>2026-2030</td>
<td>152.7</td>
<td>175.4</td>
<td>275.6</td>
<td>193.9</td>
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<tr>
<td>2031-2035</td>
<td>187.1</td>
<td>226.4</td>
<td>312.3</td>
<td>253.9</td>
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<tr>
<td>2036-2040</td>
<td>202.3</td>
<td>259.1</td>
<td>318.5</td>
<td>277.5</td>
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<tr>
<td>2041-2045</td>
<td>209.8</td>
<td>283.8</td>
<td>300.5</td>
<td>280.9</td>
</tr>
<tr>
<td>2018-2045</td>
<td>872.5</td>
<td>1076.0</td>
<td>1447.3</td>
<td>1147.7</td>
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</tbody>
</table>

Source: Authors calculation

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**Present Value of Gain from Early Fertility Transition (Billion USD)**

Source: Abrigo, Orbeta and Herrin November 2017
Poverty impact of demographic dividend

Poverty incidence (%) under alternative scenarios of economic gains from demographic dividends

Estimates using Balisacan and Pernia (2001) growth elasticity of poor household income
4. Some operational considerations
Operational considerations

• Design of strategy → implementation/delivery?
• Implementation at scale; do effects of specific interventions, by specific groups, in specific areas add up to achieve policy goals?
• Implementation by LGUs: Need for coordination. Is RPRH law sufficient to generate national-LGU and inter-LGU cooperation?
• Implementation by contracting FP (and MNCHN) services to serve identified beneficiaries, e.g., NHTS families
Mabuhay
Annex: The effect of an additional child on human capital of children, labor supply of parents, and family savings
Poverty incidence and distribution of families by family size, 1991 and 2015

Poverty Incidence and Distribution of Families by Family Size, 1991 and 2015

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Impact of an additional child on school enrollment by income quintile

Impact of an additional child on school enrollment (%)

Richest
Upper middle
Middle
Lower middle
Poorest

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Impact of additional child on labor supply of parents

Impact of an additional child on the labor force participation of parents (%)

Fathers  Mothers

Poorest
-3.00
-2.00
-1.00
0.00
1.00
2.00
3.00
4.00
5.00
6.00
7.00
8.00

Richest
-2.12
1.16
0.43
0.69
-2.12
0.60
0.33
0.00
-2.12

Upper middle
Middle
Lower middle
Poorest

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Impact of an additional child on family savings

Impact of an additional child on family savings (%)

<table>
<thead>
<tr>
<th></th>
<th>Poorest</th>
<th>Lower middle</th>
<th>Middle</th>
<th>Upper middle</th>
<th>Richest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact</td>
<td>0.00</td>
<td>-61.13</td>
<td>-32.63</td>
<td>-25.28</td>
<td>-14.46</td>
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