ANALYSIS OF REGIONAL DISPARITIES IN BENIN’S ECONOMIC DEPENDENCY

Idossou Jean-Baptiste OGA
Barthélémy BIAO
OUTLINE

- Context and objective
- Theoretical framework
- Data and methods
- Empirical results
- Conclusion and policy implication
• African leaders are taking into account the need to take advantage of youth to accelerate the development of the continent

• Capitalizing on the demographic dividend depends a great deal on the characteristics of the economic life cycle

• It is important to understand disparities in economic dependency by age
Recent academic papers show that there are differences in economic dependency between countries (Mason and Lee 2011; 2012; Hammer et al. 2015; Dramani and Oga, 2017).

There is a gap in the literature about intra-country differences in economic dependency.
Objective: Analyze intra-country differences in economic dependency by age
THEORETICAL FRAMEWORK

- Generational economy based on life cycle deficit (LCD)

- Economic life cycle is determined by production (YL) and consumption profiles (C) by age

- LCD = C(a) – YL(a)
DATA AND METHODS

• LCD age borders between the life cycle stages of dependency are not fixed

• Age borders are endogenously determined by age profiles of production and consumption

• EDR (%) = \left[ \frac{LCD}{(Total\ Labor\ income)} \right]\times100
DATA AND METHODS

- 2015 household survey data from INSAE (Institute of Statistics)
- Population data from INSAE, 2013 census data and projections
ECONOMIC LIFECYCLE PROFILE, 2015

Source: LAREG, Authors’ calculation

[Graph showing the relationship between age and FCFA for income and consumption]
ECONOMIC LIFECYCLE PROFILE, 2015

Source: LAREG, Authors’ calculation
ECONOMIC LIFECYCLE PROFILE, 2015

Source: LAREG, Authors’ calculation

Graph showing the economic lifecycle profile with age on the x-axis and FCFA on the y-axis. The graph includes two lines:
- Red line labeled 'C moy_At'
- Blue line labeled 'YL moy_At'

The graph illustrates the lifecycle stages, with peaks indicating changes in economic profiles.
ECONOMIC LIFECYCLE PROFILE, 2015

Source: LAREG, Authors’ calculation
ECONOMIC LIFECYCLE PROFILE, 2015

Source: LAREG, Authors’ calculation
ECONOMIC LIFECYCLE PROFILE, 2015

Source: LAREG, Authors’ calculation

The graph shows the economic lifecycle profile for two regions: C moy_Atl and YL moy_Atlantique-Littoral. The x-axis represents age, ranging from 0 to 90+. The y-axis represents FCFA, with values ranging from 0 to 1,400,000. The graph illustrates the economic trends and phases for each region over the age range.
ECONOMIC LIFECYCLE PROFILE, 2015

Source: LAREG, Authors’ calculation
**CONSUMPTION AND LABOR INCOME BY REGIONS, 2015**

<table>
<thead>
<tr>
<th></th>
<th>Borgou/Alibori</th>
<th>Atacora/Donga</th>
<th>Zou/Collines</th>
<th>Ouémé/Plateau</th>
<th>Atlantique/Littoral</th>
<th>Mono/Couffo</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Consumption</strong></td>
<td>676,55</td>
<td>380,81</td>
<td>589,93</td>
<td>814,99</td>
<td>1109,69</td>
<td>400,81</td>
</tr>
<tr>
<td>(billions, XOF)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>%</strong></td>
<td>17%</td>
<td>10%</td>
<td>15%</td>
<td>21%</td>
<td>28%</td>
<td>10%</td>
</tr>
<tr>
<td><strong>Labor income</strong></td>
<td>501,43</td>
<td>304,60</td>
<td>337,68</td>
<td>480,15</td>
<td>783,89</td>
<td>351,22</td>
</tr>
<tr>
<td>(billions, XOF)</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>%</strong></td>
<td>18%</td>
<td>11%</td>
<td>12%</td>
<td>17%</td>
<td>28%</td>
<td>13%</td>
</tr>
</tbody>
</table>
## ECONOMIC DEPENDENCY RATIO IN BENIN BY REGIONS, 2015

<table>
<thead>
<tr>
<th>REGIONS</th>
<th>Borgou/Alibori</th>
<th>Atacora/Donga</th>
<th>Zou/Collines</th>
<th>Ouémé/Plateau</th>
<th>Atlantique/Littoral</th>
<th>Mono/Couffo</th>
</tr>
</thead>
<tbody>
<tr>
<td>LCD Aggregate (1)</td>
<td>175,12</td>
<td>76,21</td>
<td>252,25</td>
<td>334,85</td>
<td>325,80</td>
<td>49,59</td>
</tr>
<tr>
<td>YL Aggregate (2)</td>
<td>501,43</td>
<td>304,60</td>
<td>337,68</td>
<td>480,15</td>
<td>783,89</td>
<td>351,22</td>
</tr>
<tr>
<td>Surplus, Agr</td>
<td>90,74</td>
<td>95,63</td>
<td>24,25</td>
<td>36,70</td>
<td>151,15</td>
<td>120,33</td>
</tr>
<tr>
<td>EDR (%)</td>
<td>35</td>
<td>25</td>
<td>75</td>
<td>70</td>
<td>42</td>
<td>14</td>
</tr>
<tr>
<td>Age surplus (Years)</td>
<td>32</td>
<td>34</td>
<td>26</td>
<td>27</td>
<td>32</td>
<td>46</td>
</tr>
</tbody>
</table>
## LIFE CYCLE STAGES BY REGIONS

<table>
<thead>
<tr>
<th>Regions</th>
<th>Age dependency (Young)</th>
<th>Surplus Age span</th>
<th>Age dependency (Old)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Borgou-Alibori</td>
<td>0-29</td>
<td>30-61</td>
<td>62 years and over</td>
</tr>
<tr>
<td>Atacora-Donga</td>
<td>0-25</td>
<td>26-59</td>
<td>60 years and over</td>
</tr>
<tr>
<td>Ouémé-Plateau</td>
<td>0-27</td>
<td>28-59</td>
<td>60 years and over</td>
</tr>
<tr>
<td>Atlantique-Littoral</td>
<td>0-26</td>
<td>27-61</td>
<td>62 years and above</td>
</tr>
<tr>
<td>Zou-Collines</td>
<td>0-32</td>
<td>33-55</td>
<td>56 years and above</td>
</tr>
<tr>
<td>Mono-Couffo</td>
<td>0-23</td>
<td>24-69</td>
<td>70 years and above</td>
</tr>
</tbody>
</table>
Even inside a country, there are differences in economic dependency that are linked to production and consumption by age.

Regions have to learn best practices from themselves.

Next step: explain why EDR varies so much inside Benin.
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