Manual on National Transfer Accounts: Private Reallocations (Chapter 6)

Gretchen Donehower
University of California at Berkeley

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Outline

6.1 Introduction
6.2 Constructing macro controls
6.3 Estimating the age patterns
6.4 Finalizing age profiles
6.1 Introduction

• The accounts
  – Private transfers
    • Inter-household transfers (between households)
      – Inflows and outflows
    • Intra-household transfers (within households)
      – Inflows and outflows
      – Separated by reason for transfer: education, health, other private consumption, transfers of saving to household head
  – Private asset-based reallocations
    • Private asset income
      – Capital income (also known as operating surplus)
      – Property income
    • Private saving
6.1 Introduction

- Aspects of the accounts
  - Inter-household transfers
    - Includes flows between private households, and those with non-profits as intermediaries
      - Direct gifts
      - Charitable donations, receipt of charity
      - Alimony and child support
    - Transfers of current income only, not accumulated capital
  - Calculated in the usual way
    - age pattern from survey, adjusted to macro control
6.1 Introduction

• Aspects of the accounts
  – Intra-household: within households
    • Not part of national accounts
    • One of NTAs big innovations
    • Model based (assumptions + other NTA age profiles)
      – Estimate in other NTA age profiles how much each person consumes and how much cash he has to pay for that consumption
      – Some in household have cash surplus, some have deficit
      – Use an assumed model of equal sharing by which those with cash surplus make transfers to cover the needs of those with deficits
6.1 Introduction

• Aspects of the accounts
  – Private capital income
    • Return to corporate and household capital
    • Also called operating surplus
    • Accrues to owners of corporations (shareholders) and households (home owners)
    • Calculated in the usual way
  
  – Private property income
    • Distributed to the owners of assets
    • Dividends, interest, rents
    • Inflows and outflows must balance, but there may be net ROW flow
    • Calculated in the usual way
6.1 Introduction

• Aspects of the accounts
  – Private saving
    • Final balancing item:
      Private saving = Labor income
      + Asset income (public and private)
      + Net Transfers (public and private)
      - Consumption (public and private)
      - Public saving
    • Accumulates all estimation errors of other age profiles
    • Macro control is net private saving from SNA
### Per Capita Values (US$ 000's)

<table>
<thead>
<tr>
<th>Variables</th>
<th>All Ages</th>
<th>0-14</th>
<th>15-29</th>
<th>30-44</th>
<th>45-64</th>
<th>65-89</th>
<th>90+</th>
<th>ROW</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Private Reallocations</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transfers</td>
<td>5.4</td>
<td>12.1</td>
<td>5.9</td>
<td>(7.1)</td>
<td>3.5</td>
<td>19.3</td>
<td>22.3</td>
<td>na</td>
</tr>
<tr>
<td>Interhousehold Transfers</td>
<td>(0.2)</td>
<td>12.3</td>
<td>6.6</td>
<td>(8.9)</td>
<td>(7.5)</td>
<td>(2.7)</td>
<td>(4.9)</td>
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<tr>
<td>Inflows</td>
<td>0.3</td>
<td>-</td>
<td>0.4</td>
<td>0.5</td>
<td>0.3</td>
<td>1.0</td>
<td>-</td>
<td>na</td>
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<tr>
<td>Less: Outflows</td>
<td>0.5</td>
<td>-</td>
<td>0.1</td>
<td>0.5</td>
<td>0.9</td>
<td>1.0</td>
<td>1.1</td>
<td>na</td>
</tr>
<tr>
<td>Intrahousehold Transfers</td>
<td>-</td>
<td>12.3</td>
<td>6.3</td>
<td>(8.9)</td>
<td>(6.9)</td>
<td>(1.9)</td>
<td>(3.8)</td>
<td>na</td>
</tr>
<tr>
<td>Inflows</td>
<td>11.2</td>
<td>12.3</td>
<td>11.2</td>
<td>10.9</td>
<td>12.9</td>
<td>6.5</td>
<td>0.7</td>
<td>na</td>
</tr>
<tr>
<td>Less: Outflows</td>
<td>11.2</td>
<td>-</td>
<td>5.0</td>
<td>19.8</td>
<td>19.8</td>
<td>8.4</td>
<td>4.5</td>
<td>na</td>
</tr>
<tr>
<td><strong>Asset-Based Reallocations</strong></td>
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<td>(0.2)</td>
<td>(0.7)</td>
<td>1.8</td>
<td>11.0</td>
<td>22.0</td>
<td>27.2</td>
<td>na</td>
</tr>
<tr>
<td><strong>Asset Income</strong></td>
<td>7.7</td>
<td>-</td>
<td>1.0</td>
<td>5.0</td>
<td>14.6</td>
<td>24.0</td>
<td>15.8</td>
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<tr>
<td><strong>Capital Income</strong></td>
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<td>-</td>
<td>1.3</td>
<td>7.0</td>
<td>12.9</td>
<td>15.6</td>
<td>10.0</td>
<td>na</td>
</tr>
<tr>
<td><strong>Property Income</strong></td>
<td>0.9</td>
<td>-</td>
<td>(0.3)</td>
<td>(2.0)</td>
<td>1.7</td>
<td>8.4</td>
<td>5.8</td>
<td>na</td>
</tr>
<tr>
<td>Less: Saving</td>
<td>2.1</td>
<td>0.2</td>
<td>1.7</td>
<td>3.2</td>
<td>3.6</td>
<td>2.0</td>
<td>(11.4)</td>
<td>na</td>
</tr>
</tbody>
</table>

### Aggregate Values (US$ billions)

<table>
<thead>
<tr>
<th>Variables</th>
<th>All Ages</th>
<th>0-14</th>
<th>15-29</th>
<th>30-44</th>
<th>45-64</th>
<th>65-89</th>
<th>90+</th>
<th>ROW</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Private Reallocations</strong></td>
<td>1,568</td>
<td>734</td>
<td>353</td>
<td>(460)</td>
<td>242</td>
<td>662</td>
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<tr>
<td>Transfers</td>
<td>(51)</td>
<td>746</td>
<td>395</td>
<td>(578)</td>
<td>(512)</td>
<td>(94)</td>
<td>(8)</td>
<td>51</td>
</tr>
<tr>
<td>Interhousehold Transfers</td>
<td>(51)</td>
<td>-</td>
<td>18</td>
<td>2</td>
<td>(39)</td>
<td>(30)</td>
<td>(2)</td>
<td>51</td>
</tr>
<tr>
<td>Inflows</td>
<td>81</td>
<td>-</td>
<td>23</td>
<td>32</td>
<td>22</td>
<td>4</td>
<td>-</td>
<td>unk</td>
</tr>
<tr>
<td>Less: Outflows</td>
<td>132</td>
<td>-</td>
<td>6</td>
<td>31</td>
<td>61</td>
<td>33</td>
<td>2</td>
<td>unk</td>
</tr>
<tr>
<td>Intrahousehold Transfers</td>
<td>-</td>
<td>746</td>
<td>377</td>
<td>(580)</td>
<td>(473)</td>
<td>(64)</td>
<td>(6)</td>
<td>0</td>
</tr>
<tr>
<td>Inflows</td>
<td>3,237</td>
<td>746</td>
<td>675</td>
<td>708</td>
<td>884</td>
<td>223</td>
<td>1</td>
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</tr>
<tr>
<td>Less: Outflows</td>
<td>3,237</td>
<td>-</td>
<td>298</td>
<td>1,287</td>
<td>1,357</td>
<td>287</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td><strong>Asset-Based Reallocations</strong></td>
<td>1,619</td>
<td>(12)</td>
<td>(42)</td>
<td>118</td>
<td>754</td>
<td>755</td>
<td>46</td>
<td>na</td>
</tr>
<tr>
<td><strong>Asset Income</strong></td>
<td>2,235</td>
<td>-</td>
<td>61</td>
<td>325</td>
<td>999</td>
<td>823</td>
<td>27</td>
<td>na</td>
</tr>
<tr>
<td><strong>Capital Income</strong></td>
<td>1,971</td>
<td>-</td>
<td>77</td>
<td>455</td>
<td>886</td>
<td>535</td>
<td>17</td>
<td>na</td>
</tr>
<tr>
<td><strong>Property Income</strong></td>
<td>265</td>
<td>-</td>
<td>(16)</td>
<td>(130)</td>
<td>114</td>
<td>288</td>
<td>10</td>
<td>(265)</td>
</tr>
<tr>
<td>Less: Saving</td>
<td>616</td>
<td>12</td>
<td>103</td>
<td>207</td>
<td>245</td>
<td>68</td>
<td>(19)</td>
<td>na</td>
</tr>
</tbody>
</table>

Table is changed from one in the manual chapter.
6.1 Introduction

[Graph showing annual flows and age distribution for intra and inter-household flows, private asset income, and private saving.]

Private Asset Income

Private Saving
Outline

6.1 Introduction

6.2 Constructing macro controls

6.3 Estimating the age patterns

6.4 Finalizing age profiles
6.2 Constructing macro controls

• Intra-household transfers
  – Aggregate net flow is zero by definition
  – No macro control for gross flows

• Inter-household transfers
  – Total net transfers macro control is the difference between National Income and Disposable Income
  – Subtract public portion of that for private net intra-household transfer macro control
6.2 Constructing macro controls

- **Capital income**
  1. Net operating surplus of corporations and non-profit institutions serving households (NPISH)
  2. Net operating surplus of households
  3. Capital’s share of net mixed income (1/3 gross mixed income minus consumption of fixed capital)
  4. Capital’s share of indirect taxes less subsides

- **Property income**
  - Many pieces of property income, but only need to identify those with different age profiles
    1. Property income inflow, interest
    2. Property income inflow, non-interest
    3. Property income outflow, interest, households to government
    4. Property income outflow, interest, households to consumer creditors
    5. Property income outflow, non-interest
  - Often no data on #3, so use only one interest outflow macro control
6.2 Constructing macro controls

• Private saving
  – Same as SNA net national saving by private sectors (corporations, households, non-profits)
Outline

6.1 Introduction
6.2 Constructing macro controls
6.3 Estimating the age patterns
6.4 Finalizing age profiles
6.3 Estimating the age patterns

• Inter-household transfers
  – Attribute all amounts to household head before computing age average
  – Should have survey items on amounts given and received
  – Some inflows will be included in income section
  – Items to look for:
    • Cash gifts, family allowances
    • Alimony and child support
    • Charitable donations
    • Remittances
6.3 Estimating the age patterns

- Intra-household transfers
  - Here is where you need the micro-level database!
  - Start with macro-adjusted, unsmoothed, individual-level amounts for:
    - Private consumption by sectors (education, health, owned housing, other)
    - Labor income
    - Public cash transfer inflows
    - Net inter-household transfers
    - Taxes paid
  - Implement household sharing model (Stata code in appendix)
6.3 Estimating the age patterns

- Intra-household transfers
  - The “multiple survey problem”
    - When ingredient variables come from multiple surveys, we only have age averages instead of individual level data
    - This biases the gross flows toward zero, but not the net flows
    - Manual describes procedures for reducing the bias, data permitting
6.3 Estimating the age patterns

• Five age shapes are needed (all attributed to household head):
  1. For some property income pieces and corporate net operating surplus
     • Dividends, interest, rent (land and resource rents, not dwelling rents)
  2. For mixed income
     • Self-employment income
  3. For household net operating surplus
     • Imputed rent
  4. For interest payments from household for consumer credit
     • Interest payments for mortgages, credit cards, and loans to household-owned businesses
  5. For interest payments from households to government
     • Interest on student loan debt, publicly financed business loans
     • If unavailable, use all interest outflows
Outline

6.1 Introduction
6.2 Constructing macro controls
6.3 Estimating the age patterns
6.4 Finalizing age profiles
6.4 Finalizing the age profiles

- **Smoothing**
  - See appendix B

- **Adjusting to macro control**
  - Inter-household transfers
    - Only have a net flow
    - Infinite ways to adjust gross flows to match a net flow, so... chapter gives several possible calculations
      - Choose the one that works best and requires the least adjustment
  - Intra-household transfers
    - Small adjustments necessary to correct for smoothing and differences in aggregate population age distribution compared to survey
6.4 Finalizing the age profiles

• Adjusting to macro control
  – Asset income: combine age shapes with macro controls

<table>
<thead>
<tr>
<th>Macro Control</th>
<th>Age Shape</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAPITAL INCOME COMPONENTS:</td>
<td></td>
</tr>
<tr>
<td>1. NOS of Corporations and NPISH</td>
<td>Property Income (Div., Int., Rent)</td>
</tr>
<tr>
<td>2. NOS of HH</td>
<td>Imputed Rent</td>
</tr>
<tr>
<td>3. Mixed Income, Capital Share (MICS)</td>
<td>Mixed Income</td>
</tr>
<tr>
<td>4. Indirect Taxes Less Subsidies, Capital Share</td>
<td>[1+2+3, after adjustment]</td>
</tr>
<tr>
<td>PROPERTY INCOME COMPONENTS:</td>
<td></td>
</tr>
<tr>
<td>5. Property Income Inflow</td>
<td>Property Income (D,I,R)</td>
</tr>
<tr>
<td>6. Interest Outflow, HH to Gov’t</td>
<td>Interest Expense, HH to Gov’t</td>
</tr>
<tr>
<td>7. Interest Outflow, HH to Consumer Creditors</td>
<td>Int Expense, HH</td>
</tr>
<tr>
<td>8. Property Income Outflow, excluding HH interest</td>
<td>Property Income (D,I,R)</td>
</tr>
</tbody>
</table>
6.4 Finalizing the age profiles

• Evaluation
  – Internal consistency checks
  – Activity of children
  – Reasonability
  – External validity checks
  – Private saving estimates and the accumulation of all prior errors