Distribution of financial intermediation services indirectly measured (FISIM)

Expert Group Meeting on Financial Services and Business Registers
25-27 November 2015
Istanbul, Turkey

United Nations Statistics Division
Outline of presentation

- Overview of FISIM
- 2008 SNA recommendation on allocation of FISIM
- Allocation of FISIM
Overview of FISIM

FISIM

- Is indirect measure of the value of financial intermediation services provided but for which financial institutions do not charge explicitly
- Needs to be imputed because no explicit fees are charged
- Partitions actual bank interest into
  - SNA interest
  - FISIM
- Applies to loans and deposits provided by, or deposited with, financial institutions
Overview of FISIM

FISIM output

\[ FISIM = FISIM_L + FISIM_D = \left( \frac{r_L - rr}{100.0} \right) Y_L + \left( \frac{rr - r_D}{100.0} \right) Y_D \]

- \( FISIM_L \) = FISIM on loans
- \( FISIM_D \) = FISIM on deposits
- \( r_L \) = lending rate
- \( r_D \) = deposit rate
- \( rr \) = reference rate
- \( Y_L \) = average stock of loans
- \( Y_D \) = average stock of deposits
Overview of FISIM output

How to calculate reference rate

- Reference rate should be determined according to national circumstances using any of following methods
  
  - A single exogenous rate for a specific instrument such as interbank lending rates
  
  - A weighted average of interest rates on loans and deposits
    \[ rr_w = \frac{R_L + R_D}{Y_L + Y_D} \times 100.0 \]
    
    - \( rr_w \) = weighted reference rate
    - \( R_L \) = interest receivable on loans
    - \( R_D \) = interest payable on deposits

  - A simple average of interest rates on loans and deposits
    \[ rr_s = 0.5 \left( \frac{R_L}{Y_L} + \frac{R_D}{Y_D} \right) \times 100.0 \]
    
    - \( rr_s \) = simple reference rate

- One reference rate per each currency
2008 SNA recommendation on allocation of FISIM

- Output of FISIM should be allocated between users (lenders as well as borrowers) treating the allocated amounts as
  - Intermediate consumption
  - Final consumption
  - Exports

1993 SNA
- Recognized that in practice it may be difficult to find any method of allocating FISIM among different users
- Accepted that some countries may prefer to continue to use the convention whereby the whole of the services are allocated to intermediate consumption of a notional industry

2008 SNA has removed this possibility
Allocation of FISIM

Two approaches

- Bottom-up approach
- Top-down approach
Allocation of FISIM

Bottom-up approach

- If reliable data on average stocks of loans and deposits and interest by sector are available

<table>
<thead>
<tr>
<th>Sector</th>
<th>Average stock of loans</th>
<th>Average stock of deposits</th>
<th>Interest on loans</th>
<th>Interest on deposits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-financial corporations</td>
<td>Available</td>
<td>Available</td>
<td>Available</td>
<td>Available</td>
</tr>
<tr>
<td>Financial corporations</td>
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<td>Available</td>
<td>Available</td>
<td>Available</td>
</tr>
<tr>
<td>General government</td>
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<td>Available</td>
<td>Available</td>
<td>Available</td>
</tr>
<tr>
<td>Non-profit institutions serving households</td>
<td>Available</td>
<td>Available</td>
<td>Available</td>
<td>Available</td>
</tr>
<tr>
<td>Households</td>
<td>Available</td>
<td>Available</td>
<td>Available</td>
<td>Available</td>
</tr>
<tr>
<td>Final consumers</td>
<td>Available</td>
<td>Available</td>
<td>Available</td>
<td>Available</td>
</tr>
<tr>
<td>Owners of dwellings</td>
<td>Available</td>
<td>Not applicable</td>
<td>Available</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Owners of unincorporated enterprises</td>
<td>Available</td>
<td>Available</td>
<td>Available</td>
<td>Available</td>
</tr>
<tr>
<td>Rest of the world</td>
<td>Available</td>
<td>Available</td>
<td>Available</td>
<td>Available</td>
</tr>
</tbody>
</table>

- Calculate domestically-produced FISIM directly for each sector
- Sum up sectoral FISIM to get total FISIM
Bottom-up approach

- Worked example 3.1 in the Handbook of Financial Production, Flows and Stocks in the System of National Accounts shows how to calculate FISIM using the bottom-up approach
Allocation of FISIM

Top-down approach

- If reliable data on average stocks of loans and deposits and interest by sector are unavailable

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</thead>
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<td>Available</td>
<td>Available</td>
</tr>
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- Calculate domestically-produced total FISIM for loans and deposits separately

- Allocate to sectors using appropriate ratios calculated from breakdown of data on stock of loans and deposits from various sources
Allocation of FISIM

Top-down approach

- Worked example 3.2 in the Handbook of Financial Production, Flows and Stocks in the System of National Accounts shows how to allocate FISIM by industry using the top-down approach
Thank you