Construction of the Egyptian Social Accounts for GTAP Submission

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Abstract
This is technical documentation related to the data sources, manipulation and final submission of the Egyptian National Accounts data for fiscal year 2003/2004.
1 Introduction

This technical brief describes how the Egyptian Social accounts were collected, manipulated, and submitted to the GTAP consortium for inclusion. Although the national accounts are far from perfect, the importance of Egypt in the Middle East and Egypt’s future in the world economy warranted its inclusion.

The process of converting the disparate data for Egypt into a consistent dataset required the use of Microsoft Excel and the GAMS programming language.

2 Data Sources

The original dataset is numbered from 1 to 32. This numbering scheme was re-labeled using more intuitive 3-letter indicators. So sector #1, Plant based agriculture, was converted to AGR. Sector #2, Animal based agriculture, was converted to LVS, for livestock, and so on. The sector mapping is included in Table ??.

3 Data Manipulation

3.1 Intermediate demand

The core portion of the dataset is Egypt’s input-output matrix (IO Table). This table was provided with 32 separate production sectors. The choice of sectors roughly conforms to the 1993 NSA categories, with a few extra sectors that pertain explicitly to Egypt – for example, “Cotton Ginning” which is believed to be an important industry in the Egyptian economy.

Intermediate demand is supplied to GTAP as demand for domestic intermediates, and demand for foreign intermediates. The foreign intermediate demand was not available, so demand shares were imputed based upon domestic intermediate demand. This approach is reasonable for most sectors, but may be improved in future versions for some sectors. For example, sector RBR (rubber products), shows that 90% of intermediate demand is for textiles (TEX), and so the imported demand was also imputed this way.

4 Trade Statistics

GTAP requires that demand is separated between demand for imports and demand for domestically-produced goods. This posed a challenge, because the 2003-04 dataset only distinguishes imported inputs for intermediate demand. The dataset did not contain trade totals, and auxiliary data does not match precisely.
This section describes the disparate data, their sources, and how these discrepancies were handled. The fact that GTAP uses their own trade data, means that only the percentage participation of imports are important.

Some totals from various sources:

Table 1: Trade statistics coming from various government sources, 2003-2004 Import and Export Data

<table>
<thead>
<tr>
<th>Source</th>
<th>Import</th>
<th>Exports</th>
<th>Tariffs</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original 2003-2004 IO Table</td>
<td>67,557,458</td>
<td>N/A</td>
<td>N/A</td>
<td>L.E. (Constant)</td>
</tr>
<tr>
<td>HS4-Digit Trade Statistics directly from the Ministry of Trade and Industry</td>
<td>69,662,742</td>
<td>41,692,133</td>
<td>7,249,613</td>
<td>L.E. (Current)</td>
</tr>
<tr>
<td>HS4-Digit Trade Statistics in US Dollar Terms</td>
<td>11,322,003</td>
<td>6,772,463</td>
<td></td>
<td>USD (Current)</td>
</tr>
<tr>
<td>Egyptian Economic Monitor (Volume 1, No.4, June 2005)</td>
<td>18,286,000</td>
<td>10,452,000</td>
<td></td>
<td>USD (Current)</td>
</tr>
</tbody>
</table>

All figures reported in Thousands, no matter the currency denomination.

5 Data Notes

1. Because the FIN (Finance) Sector is large relative to the others, it appears that this sector includes “margins”. Margins are wholesale and retail distribution markups. Typically, these markups represent 25% of total sales in a given country.