Introduction to Financial Programming

Overview

Jan Gottschalk
TAOLAM

What is Financial Programming?

In a nutshell, it’s what the IMF does …
- To forecast the macroeconomy
- With the objective of helping to preserve macroeconomic stability
Why Should You Care?

For many of you, forecasting the macroeconomy is an input of your work.

For some of you, preserving macroeconomic stability is your responsibility.

Overview

I. Main Sectors of the Macroeconomy
II. Macroeconomic Analysis
III. Informed Economic Policy Decision-Making
IV. Financial Programming & Policies Workshop
## I. The Main Macroeconomic Sectors

### Real Sector

\[ G; T \]

\[ CA = S - I \]

**Balance of Payments**

### Fiscal Policies

**Monetary financing**

\[ \text{Interest rates/exchange rate} \]

### Monetary Policies

\[ RM = NFA + NDc \]

---

### Selected Economic Indicators Table (Real Sector)

**Table 1. Myanmar: Selected Economic Indicators, 2010/11–2014/15**

<table>
<thead>
<tr>
<th></th>
<th>2010/11</th>
<th>2011/12</th>
<th>2012/13</th>
<th>2013/14</th>
<th>2014/15</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Output and prices</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Real GDP (authorities)</td>
<td>10.4</td>
<td>5.9</td>
<td>6.7</td>
<td>8.9</td>
<td>...</td>
</tr>
<tr>
<td>Real GDP (staff working estimates)</td>
<td>5.3</td>
<td>5.9</td>
<td>6.4</td>
<td>6.8</td>
<td>6.9</td>
</tr>
<tr>
<td>CPI (end-period)</td>
<td>8.9</td>
<td>-1.1</td>
<td>4.7</td>
<td>8.0</td>
<td>7.7</td>
</tr>
<tr>
<td>CPI (period average)</td>
<td>8.2</td>
<td>2.8</td>
<td>2.8</td>
<td>6.4</td>
<td>7.9</td>
</tr>
</tbody>
</table>
### Fiscal Table

Table 2. Myanmar: Summary Operations of the Nonfinancial Public Sector, 2010/11–2014/15

<table>
<thead>
<tr>
<th></th>
<th>2010/11</th>
<th>2011/12</th>
<th>2012/13</th>
<th>2013/14</th>
<th>2014/15</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Consolidated Accounts</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Revenue and grants</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prel.</td>
<td>4,551</td>
<td>5,206</td>
<td>10,587</td>
<td>11,191</td>
<td>12,285</td>
</tr>
<tr>
<td>Act. Est.</td>
<td>1,318</td>
<td>1,683</td>
<td>2,758</td>
<td>2,609</td>
<td>3,209</td>
</tr>
<tr>
<td>Budget</td>
<td>783</td>
<td>988</td>
<td>912</td>
<td>949</td>
<td>949</td>
</tr>
<tr>
<td>Proj.</td>
<td>1,546</td>
<td>2,376</td>
<td>6,564</td>
<td>7,180</td>
<td>7,674</td>
</tr>
<tr>
<td><strong>Expenditure</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prel.</td>
<td>6,722</td>
<td>7,208</td>
<td>12,333</td>
<td>14,492</td>
<td>14,962</td>
</tr>
<tr>
<td>Act. Est.</td>
<td>3,519</td>
<td>4,259</td>
<td>7,904</td>
<td>9,989</td>
<td>10,259</td>
</tr>
<tr>
<td>Budget</td>
<td>1,548</td>
<td>1,945</td>
<td>4,009</td>
<td>4,941</td>
<td>5,211</td>
</tr>
<tr>
<td>Proj.</td>
<td>1,971</td>
<td>2,314</td>
<td>3,895</td>
<td>5,047</td>
<td>5,367</td>
</tr>
<tr>
<td><strong>Net acquisition of nonfinancial assets</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prel.</td>
<td>3,203</td>
<td>2,949</td>
<td>4,429</td>
<td>4,504</td>
<td>4,704</td>
</tr>
<tr>
<td>Act. Est.</td>
<td>2,831</td>
<td>2,572</td>
<td>2,934</td>
<td>2,993</td>
<td>3,193</td>
</tr>
<tr>
<td>Budget</td>
<td>372</td>
<td>377</td>
<td>1,495</td>
<td>1,511</td>
<td>1,511</td>
</tr>
<tr>
<td>Proj.</td>
<td>372</td>
<td>377</td>
<td>1,495</td>
<td>1,511</td>
<td>1,511</td>
</tr>
</tbody>
</table>

### Balance of Payment

Table 3. Myanmar: Balance of Payments, 2010/11–2014/15

<table>
<thead>
<tr>
<th></th>
<th>2010/11</th>
<th>2011/12</th>
<th>2012/13</th>
<th>2013/14</th>
<th>2014/15</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current account</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trade balance</td>
<td>-952</td>
<td>-1,338</td>
<td>-2,452</td>
<td>-2,752</td>
<td>-2,809</td>
</tr>
<tr>
<td>Of which: Gas</td>
<td>445</td>
<td>371</td>
<td>-2,140</td>
<td>-1,928</td>
<td>-1,152</td>
</tr>
<tr>
<td>Imports, mostly cif</td>
<td>-1,814</td>
<td>-10,437</td>
<td>-12,428</td>
<td>-13,731</td>
<td>-15,663</td>
</tr>
<tr>
<td>Nonfactor services, net</td>
<td>-482</td>
<td>-432</td>
<td>-74</td>
<td>-78</td>
<td>-83</td>
</tr>
<tr>
<td>Income, net</td>
<td>-1,145</td>
<td>-1,024</td>
<td>-747</td>
<td>-1,364</td>
<td>-2,320</td>
</tr>
<tr>
<td>Of which: Interest due</td>
<td>-306</td>
<td>-560</td>
<td>-94</td>
<td>-174</td>
<td>-200</td>
</tr>
<tr>
<td>Transfers, net</td>
<td>231</td>
<td>490</td>
<td>509</td>
<td>618</td>
<td>747</td>
</tr>
<tr>
<td>Official</td>
<td>64</td>
<td>41</td>
<td>28</td>
<td>98</td>
<td>186</td>
</tr>
<tr>
<td>Private</td>
<td>167</td>
<td>449</td>
<td>481</td>
<td>519</td>
<td>561</td>
</tr>
</tbody>
</table>
Monetary Table

Table 4. Myanmar: Monetary Survey, 2010/11–2014/15 1/ 2/  (in billions of kyat at end-period, unless otherwise indicated)

<table>
<thead>
<tr>
<th></th>
<th>2010/11</th>
<th>2011/12</th>
<th>2012/13</th>
<th>2013/14</th>
<th>2014/15</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Projections</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CENTRAL BANK OF MYANMAR (CBM)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net foreign assets</td>
<td>-1.6</td>
<td>-1.4</td>
<td>1,878</td>
<td>2,996</td>
<td>5,040</td>
</tr>
<tr>
<td>Foreign assets</td>
<td>2.9</td>
<td>3.0</td>
<td>2,515</td>
<td>3,329</td>
<td>5,389</td>
</tr>
<tr>
<td>Foreign liabilities</td>
<td>4.5</td>
<td>4.4</td>
<td>637</td>
<td>333</td>
<td>349</td>
</tr>
<tr>
<td>Net domestic assets</td>
<td>7,003</td>
<td>7,553</td>
<td>8,578</td>
<td>9,014</td>
<td>9,188</td>
</tr>
<tr>
<td>Domestic credit</td>
<td>7,162</td>
<td>7,851</td>
<td>9,017</td>
<td>10,125</td>
<td>10,573</td>
</tr>
<tr>
<td>Claims on central government (net)</td>
<td>6,883</td>
<td>7,673</td>
<td>8,318</td>
<td>8,815</td>
<td>9,173</td>
</tr>
<tr>
<td>Claims on deposit money banks</td>
<td>279</td>
<td>178</td>
<td>699</td>
<td>1,300</td>
<td>1,400</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other items net</td>
<td>-159</td>
<td>-299</td>
<td>-439</td>
<td>-1,101</td>
<td>-1,385</td>
</tr>
<tr>
<td>Reserve money</td>
<td>7,001</td>
<td>7,551</td>
<td>10,456</td>
<td>12,010</td>
<td>14,227</td>
</tr>
<tr>
<td>Currency in circulation</td>
<td>5,227</td>
<td>6,070</td>
<td>7,426</td>
<td>9,007</td>
<td>10,671</td>
</tr>
<tr>
<td>Deposits</td>
<td>1,774</td>
<td>1,481</td>
<td>3,030</td>
<td>3,002</td>
<td>3,557</td>
</tr>
</tbody>
</table>

II. Macroeconomic Analysis

Macroeconomic analysis on one level is about …
- Identifying key developments in all sectors
- Highlighting interrelationships between the sectors as well as cause-and-effect
- Flagging fiscal and monetary policy issues for policymakers

At another level, macroeconomic analysis is about telling a story and illustrating it with numbers …
III. Informed Economic Policy Decision-Making

What should fiscal and monetary policies do?

→ Depends on the issue at hand!
  • Is macroeconomic demand the issue?
  • Or external imbalances?
  • Or are there structural issues?

Demand Management Policy Tree

- Revenue
  - Tax rate
  - Tax base
  - Tax administration
  - Consumption
  - Interest
  - Transfers
  - Investment
  - Seigniorage
  - Debt

- Expenditure
- Financing

- Fiscal Policies

- Monetary Policies
  - Money
  - Credit
  - Interest rate
  - Exchange rate
  - Inflation target
  - Dollarization

- Reserve requirements
- OMOs
- Rediscounts
- FX swaps
Expenditure Switching Policy Tree

**Expenditure Switching**

- Exchange rate policy
- Income policy
- Trade policy

**Income policy**
- Wage Policy
- Price Policy

**Trade policy**
- Tariffs
- Quotas
- Export Promotion

Structural Policy Tree

**Increase Output**

- Improve Resource Allocation
- Expand Productive Capacity

**Price Reform**
- Enterprise Reform
- Fiscal Reform
- Financial Sector Reform
- Labor Market Reform

**Increase Investment**
- In Physical and Human Capital
- In Total Factor Productivity

**Increase Total Factor Productivity**

**Increase Investment Return**

**Increase Saving**

**Increase Investment Return**

**Increase Total Factor Productivity**

**Increase Output**

(Supply-side Policies)

**Liberalization**

- Hard Budget Constraint
- Tax System
- Expenditure Structure
- Social Safety Nets
- Cash Management (Treasury)
- Supervision
- Recapitalize banks
- Privatize
- Increase Saving
- Capital Market
- Health and Education
- Interest Rates
- Foreign Direct Investment
- Role of Public Enterprise Reform
- R & D, FDI
IV. Financial Programming & Policies

Aims of a Financial Program

Financial Program
Comprehensive set of coordinated economic policies

Direct Aim
Macroeconomic stability

Indirect Aim
Credibility / market expectations
Iterations to Form a Financial Program

A. Program Objectives

Where are we?

Are we going to be on track?

B. Policy Measures

What can we do?

What are the effects?

C. Consistent Program Projections

Thank You!

It is going to be a long-and-difficult journey this week ...

But we do provide lunch and coffee.