Tanzania: Exchange Rate Dynamics

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IGC Tanzania

New Research Project Presentation, Growth Week 2014
Outline

- What’s happening to the exchange rate in Tanzania?
- A focus on the capital account and market structure
- Looking forward – research approach and possible policy directions
- Relevance beyond Tanzania
Strong commitment to a floating regime but are we seeing a decisive change in real exchange rate dynamics?

Tanzania: Nominal and Real Effective Exchange Rate

[increase implies depreciation]

Equilibrium or misalignment?
An informative episode: post 2011 ‘East African stabilization’ episode, behaviour in IFEM (and money markets) changes.

Tanzania: real exchange rate decomposition

- Capital a/c restrictions

Price differential
- nominal exchange rate Tsh/US$
Coordinated stabilization actions by central bank Governors of Kenya, Uganda and Tanzania in October 2011

- BoT tightens rates and:
  - reduces maximum net open position;
  - restricts T.Shilling funding to non-resident customers;
  - closes many derivative channels.
Evidence suggests sharp and sustained jump in country risk premium / carry-trade gains…

Accompanied by:

• Increased interest rate volatility (absolute and relative to exchange rate)

• Increase in banks’ excess liquidity.
Policy choices and market structure?

- What does this episode tell us about the capital account and capital account liberalization in exchange rate determination in Tanzania?

- What role market structure (in forex and money markets)?

- What role BoT liquidity management / intervention play?

- Research approach: ‘conventional’ macro approaches to exchange rate determination combined with high-frequency transaction level data from 2010 to 2014.
Supplementary Slides
So, what does this episode tell us and how do we use this?

- Role of Float since 1993, first through auctions then creation of interbank foreign exchange market (IFEM) in mid-2000s.

- ‘Two-way’ pricing introduced from 2006.

- Government, through BoT, a structural net seller to IFEM for liquidity management purposes.

- Policy reforms vs micro-structural characteristics of the market?
Coordinated stabilization actions by central bank Governors of Kenya, Uganda and Tanzania in October 2011

EAC Headline Inflation 2010-14

Kenya
Tanzania
Uganda
Coordinated stabilization actions by central bank Governors of Kenya, Uganda and Tanzania in October 2011

Tanzania: short-run interest rates

- Treasury Bill rate
- Interbank cash market
- Bank rate
...continued volatility in domestic interest rates and a reversal of the trend decline in excess reserves...

<table>
<thead>
<tr>
<th>Year</th>
<th>Percent of statutory reserves (= 10% of eligible deposits)</th>
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<tbody>
<tr>
<td>2009</td>
<td>75</td>
</tr>
<tr>
<td>2010</td>
<td>88</td>
</tr>
<tr>
<td>2011</td>
<td>28</td>
</tr>
<tr>
<td>2012</td>
<td>177</td>
</tr>
<tr>
<td>2013</td>
<td>125</td>
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<tr>
<td>2014</td>
<td>140</td>
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<td></td>
<td>IFEM 2005</td>
</tr>
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<td>----------------</td>
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</tr>
<tr>
<td><strong>CR(3)</strong></td>
<td>53%</td>
</tr>
<tr>
<td><strong>CR(5)</strong></td>
<td>68%</td>
</tr>
<tr>
<td><strong>H- Index</strong></td>
<td>12.6%</td>
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</tbody>
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### Bank of Tanzania IFEM reaction functions

#### Dependent variable: ΔBoT_net_sales(t)

<table>
<thead>
<tr>
<th></th>
<th>Daily</th>
<th>Weekly</th>
<th>Monthly</th>
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<tbody>
<tr>
<td>Deviation from planned sales(t-1)</td>
<td></td>
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</tr>
<tr>
<td>positive</td>
<td>-0.45***</td>
<td>-</td>
<td>-0.08</td>
</tr>
<tr>
<td>negative</td>
<td>-0.33**</td>
<td>-0.39</td>
<td>0.10</td>
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<tr>
<td>Order flow(t)</td>
<td>0.005</td>
<td>0.001</td>
<td></td>
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<tr>
<td>Interest rate differential (t)</td>
<td>-0.008</td>
<td>-0.006</td>
<td></td>
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<tr>
<td><strong>R-square</strong></td>
<td>0.19</td>
<td>0.21</td>
<td>0.12</td>
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