Exchange Rate Regimes in Sub-Saharan Africa: Experiences and Lessons

Regional Economic Outlook
African Department, International Monetary Fund

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Elliott School of International Affairs
The George Washington University

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Motivation

- Exchange rate policy as a tool to meet macroeconomic challenges and particular circumstances

- Recent work and IMF studies
  - Tradeoffs of exchange rate regimes among goals
  - No “single prescription”

- Policy questions
  - What has been the experience of SSA countries in terms of their macroeconomic performance under different exchange rate regimes?
  - How can SSA countries improve their economic performance in the context of the exchange rate regime they have adopted?
Key points

- How has the distribution of exchange rate regimes evolved in SSA?
- How does the exchange rate regime affect macroeconomic performance—particularly inflation, output growth, and output growth volatility?
- What is the influence of the exchange rate regime on fiscal outcomes? Have fixed exchange rate regimes exerted discipline?

Analysis based on

- IMF’s Annual Report on Exchange Rate Arrangements and Exchange Restrictions (AREAER)
- Distinguish between “de facto” and “de jure” regimes
- 3-way aggregated classification (pegs-intermediates-floats)
Trends and evolution in SSA

SSA de jure and de facto exchange rate regime fine and aggregate classifications

- Pegs dominate
  - 2/3 of commodity exporters de facto peg (most to the euro)
  - Frontier market economies less likely to peg

- Transitions
  - Mid-1990s to mid-2000s “bipolar” regime and “hollowing out”
  - Reversal of trend lately, transition away from floats especially since GFC

- Words vs. deeds
  - Divergence between de jure and de facto
Stylized facts: inflation

Inflation is the lowest in SSA countries with pegs

SSA inflation median performance, various periods
Empirical results: inflation
Controlling for determinants, SSA de jure and de facto pegs have lowest inflation

Inflation regression baseline: estimated effects (vs. floats)

De jure

Direct effect

Total effect

De facto

Direct effect

Total effect

**Pegged regimes**

**Intermediate regimes**
Stylized facts: growth
Growth higher under de jure or de facto intermediate regimes

SSA median growth performance, various periods
Empirical results: growth
Potential channels through which e-rate regime affects growth

Unconditional: indirect effects of regime on output growth (de facto)

Compared to floats

- Pegs associated with
  - Less competitive (more overvalued) REER
  - Lower REER volatility, lower inflation, and greater trade openness

- Intermediates
  - More competitive REER
  - Lower price volatility, and greater trade openness

Regression analysis: indirect effects of regime on output growth 1/

<table>
<thead>
<tr>
<th></th>
<th>De jure</th>
<th></th>
<th>De Facto</th>
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<tbody>
<tr>
<td></td>
<td>Peg</td>
<td>Int</td>
<td>Peg</td>
<td>Int</td>
</tr>
<tr>
<td>Less competitive exchange rate 2/</td>
<td>0.117 ***</td>
<td>-0.083 ***</td>
<td>0.064 ***</td>
<td>-0.096 ***</td>
</tr>
<tr>
<td>Real exchange rate volatility 3/</td>
<td>-0.855 ***</td>
<td>0.469 **</td>
<td>-1.382 ***</td>
<td>-0.961 ***</td>
</tr>
<tr>
<td>Price volatility 3/</td>
<td>0.600 ***</td>
<td>-0.174 **</td>
<td>0.401 ***</td>
<td>-0.111</td>
</tr>
<tr>
<td>Inflation</td>
<td>-0.048 ***</td>
<td>-0.027 **</td>
<td>-0.011</td>
<td>0.025 ***</td>
</tr>
<tr>
<td>Trade openness</td>
<td>0.311 ***</td>
<td>0.075 ***</td>
<td>0.325 ***</td>
<td>0.110 ***</td>
</tr>
</tbody>
</table>

1/ Relative to floating regimes; includes other controls from growth regression.
2/ Higher value indicates less competitive (more overvalued) real exchange rate.
3/ Volatility measured as standard deviation of monthly growth rates.
Empirical results: growth

Controlling for determinants, growth is lower under pegs in SSA; de jure intermediate regimes are generally associated with higher growth.

Growth regression baseline: estimated effects (vs. floats)

De jure Direct effect

De facto Direct effect

De jure Total effect

De facto Total effect

Pegged regimes

Intermediate regimes
Stylized facts: output volatility
Small differences across regimes, overall lower volatility under floats

SSA median output volatility, various periods

De jure

De facto
Empirical results: volatility

Controlling for determinants, volatility is higher under de jure intermediates in SSA.

Volatility regression baseline: estimated effects (vs. floats)

De jure

Direct effect

Total effect

De facto

Direct effect

Total effect

Pegged regimes  Intermediate regimes
Stylized facts: fiscal balances
Intermediate regimes associated with the least fiscal discipline in SSA

SSA median fiscal balance to GDP (left) and primary balance to GDP (right)
Empirical results: fiscal discipline

- Controlling for determinants, intermediate regimes in SSA are associated with weaker (overall and primary) fiscal balances
  - 2 percent of GDP weaker fiscal balances relative to floats and pegs
  - Result driven primarily by the second sub-period 2001-2014

- Debt-to-GDP ratio as the measure of fiscal discipline: no substantial differences among regimes

- For the full EME & DEV sample
  - More flexible regimes appear to be associated with the most fiscal discipline (including slower debt accumulation)
Findings

- No universally “optimal” exchange rate regime: choice depends on country circumstances
- Insights on the role of regime on macroeconomic performance
  - Tradeoffs among the goals of low inflation, sustained high growth, and low output growth volatility across regimes
  - Different degrees of fiscal discipline
- Pegs
  - Best inflation performance but weaker growth
  - Better monetary discipline and greater policy credibility (peg as nominal anchor)
- Intermediates and floats
  - Higher growth relative to pegs but higher inflation
  - For de jure intermediates, higher output volatility
  - Weaker fiscal positions for intermediates

Conclusions
Policy recommendations

In the current environment

- Countries operating under pegs
  - Fiscal and structural policies must bear the burden of adjustment ensuring the sustainability of the regime
  - Reforms that enhance competitiveness and support growth

- Countries with intermediates and floats
  - Strengthen domestic monetary policy framework, ensure price stability to support a flexible regime
  - Exchange rate adjustment in response to prevailing external pressures
  - Fiscal adjustment to contain inflationary pressures from depreciations
The online edition of the Regional Economic Outlook for sub-Saharan Africa is available at www.imf.org.
Exchange rate regime classification

- Based on IMF’s *Annual Report on Exchange Rate Arrangements and Exchange Restrictions (AREAER)*
- Distinguishes between “de facto” and “de jure” regimes
- Fine and aggregated classifications

<table>
<thead>
<tr>
<th>7-way classification</th>
<th>3-way classification</th>
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<tbody>
<tr>
<td>1. Hard pegs</td>
<td>1. Peg</td>
</tr>
<tr>
<td>2. Conventional pegs</td>
<td></td>
</tr>
<tr>
<td>3. Basket pegs</td>
<td>2. Intermediate</td>
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<tr>
<td>4. Pegs within bands</td>
<td></td>
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<tr>
<td>5. Crawling pegs</td>
<td></td>
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<tr>
<td>6. Managed floats</td>
<td></td>
</tr>
<tr>
<td>7. Independent floats</td>
<td>3. Float</td>
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Divergence between de jure and de facto

- Central bank commits to (de jure) float but intervenes
- Fear of floating?

SSA distribution of de jure and de facto classifications

<table>
<thead>
<tr>
<th>de facto</th>
<th>peg</th>
<th>intermediate</th>
<th>float</th>
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<tbody>
<tr>
<td>peg</td>
<td>686</td>
<td>52</td>
<td>20</td>
</tr>
<tr>
<td>intermediate</td>
<td>6</td>
<td>413</td>
<td>185</td>
</tr>
<tr>
<td>float</td>
<td>13</td>
<td>9</td>
<td>119</td>
</tr>
<tr>
<td>total</td>
<td>705</td>
<td>474</td>
<td>324</td>
</tr>
<tr>
<td>consensus (percent)</td>
<td>97.3</td>
<td>87.1</td>
<td>36.7</td>
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Similar developments in EME & DEV sample

EME & DEV de jure and de facto exchange rate regime aggregate classifications

**EMEDEV: De Jure Classification**

- Fixed = hard pegs and pegs to single currency.
- Intermediate = basket pegs, horizontal band, crawling peg/band, and managed floats.
- Float = independent floats.

**EMEDEV: De Facto Classification**

- Fixed = hard pegs and pegs to single currency.
- Intermediate = basket pegs, horizontal band, crawling peg/band, and managed floats.
- Float = independent floats.

Source: Based on IMF’s AREAER.