Currency hierarchy and policy space: A framework for development economics

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Starting point, question and findings

Keynesian literature (i.e. Arestis/Sawyer 1998; 2006):
• Monetary stability insufficient for growth and employment
• Concept for growth-oriented policies: State active role in policy coordination
• General assumptions
• Or applied to centre economies

Question: How applicable to developing and emerging countries (DEC)?

Arguments:
• Currency hierarchy imposes major constraints to policy space in DEC
• Policy space for development simultaneously determinable by domestic variables

Point of departure: Paula/Fritz/Prates (2017)
Structure

1. Literature survey

2. Currency hierarchy (CH):
   a. Liquidity premium and currencies
   b. The concept
   c. Structural feature with variance over time
   d. Currency hierarchy in balance sheets

3. Limits of policy space at the CH bottom
   a. Monetary policy
   b. Exchange rate policy

4. Challenges to climb the ladder

5. Conclusion
1. Literature survey

Keynes:
- International monetary system based on a key-currency is hierarchical
- Keynes Plan (1948) to balance global hierarchies

‘Centre and Periphery’ (ECLAC / CEPAL):
- asymmetric global economic relations
- trade flows (Prebisch 1950); financial flows (Ocampo 2003, 2013)

‘Geography of Money’ (Cohen 1998; 2004):
- spacial dimension of currencies; ‘monetary pyramid’
- hegemonic currency with ‘exorbitant privilege’

‘Original sin’ (Eichengreen/Hausmann 2005):
- empirical approach; inability to borrow abroad
- size of currency instead of policy variables; historical dimension
2. Currency Hierarchy (CH)
a. Liquidity premium

In monetary economy, different assets have specific attributes (Keynes GT, ch. 17):

- expected appreciation $a$
- expected quasi-rent $q$
- carrying cost $c$
- liquidity premium $l$ (non-pecuniary return, linked to uncertainty)

Combination of these attributes yields an asset’s total return ($r_a$):

$$r_a = a + q - c + l$$ (1)

Assets denominated in different currencies with peculiar pricing:

- $a$ as expected exchange rate, not determined by fundamentals (Davidson 1982; Harvey 2009)
- $q$ as interest rate
- $c$ as degree of financial openness
- $l$ as structural variable; only to be influenced over longer term
b. The concept

Combining strands of literature

a. Structuralist/post-Keynesian literature from Latin America (i.e. Belluzzo 1999; Carneiro 2006; Frenkel 2006)

b. Keynes and ‘Monetary Keynesians’ (i.e. Herr 1992; Riese 2004; Schelkle 1995; Nitsch 1999)

c. Recent post-Keynesian literature (Kaltenbrunner 2017; Minsky 1986; Paula et al 2017; Prates/Andrade 2013)
b. The concept

- Equilibrium at foreign exchange market
  \[ a_n + q_n - c_n + l_n = a_s + q_s - c_s + l_s \]  

- Structural asymmetry based on investors’ preference for few currencies
  - Hegemonic currency or key currencies ("north")
  - At the bottom, currencies issued by DEC ("south")

- Currency hierarchy: \( l_s < l_n \)

- To be compensated by \( (a_s + q_c - c_s) > (a_n + q_n - c_n) \)  
  (Paula et al. 2017)
International monetary system as hierarchical and asymmetric system

Currency hierarchy

Top/Highest

Liquidity Premium

Floor/Lowest
c. Structural feature with variance over time

Global monetary regimes

Unregulated capital flows

Fixed exchange rates

Flexible exchange rates

Regulated capital flows
Global monetary regimes

Unregulated capital flows

Fixed exchange rates  |  Flexible exchange rates

Regulated capital flows

Super stable  |  Stable

Unstable  |  Stable
Global monetary regimes

Unregulated capital flows

Gold standard pre-1914

Post-Bretton Woods (since 1973)

Fixed exchange rates

Flexible exchange rates

Bretton Woods

Regulated capital flows

Super stable

stable

unstable
Global monetary regimes

Fixed exchange rates

Unregulated capital flows

Goldstandard

Post-Bretton Woods

Bretton Woods

Flexible exchange rates

Regulated capital flows

Currency hierarchy

stable

super stable

unstable

--- Bretton Woods

Goldstandard

Post-Bretton Woods

Flexible exchange rates

Currency hierarchy
d. CH in balance sheets

1. Closed Economy
d. CH in balance sheets

1. Closed Economy

Household

Firm

Commercial Bank

Central Bank

Wealth owner

Money

Net wealth

Wages

Credit

Deposits
d. CH in balance sheets

1. Closed Economy

- Wealth owner
  - Money
  - Net wealth

- Central Bank
  - FE
  - Reserves
  - Discount Window; LLR

- Commercial Bank
  - Reserves
  - Deposits

- Household
  - Wages

- Firm
  - Credit
d. CH in balance sheets

2. Open economy of southern currency
d. CH in balance sheets

2. Open economy of southern currency
d. CH in balance sheets

2. Open economy of southern currency
3. Limits of policy space at the bottom
a. Monetary policy

- Currency hierarchy requires compensation of the difference between the liquidity premium of currencies

- \(q_s > q_n\) to compensate \(l_s < l_n\)

- Lower growth; non-convergence

- lower financial development
  = reduced space for active monetary policy
b. Exchange rate policy

Relevance of capital inflows $\rightarrow$ exposure to boom bust-cycles

- **Boom:** $q_s > q_n$ $\rightarrow$ DEC currencies objects of desire of global investors
  - $a$ increases (cet. par.)
  - build-up of risks in capital account and financial sector

- **Bust:** DEC currencies first sold due to $l_s > l_n$ and expectation of $a$ reduction
  - pressure to raise interest rate (increasing $q$ and $a$) and to deepen financial openness (reduce $c$)
  - when not successful: currency crisis

- **Result:** higher volatility of $a$ *(Obstfeld/Taylor 2004; Calvo/Reinhard 2002)*

- **Result:** ‘impossible duality’ with open capital account *( Flaßbeck 2002; Rey 2013)* more accentuated for DEC
Currency hierarchy

Top/Highest

Liquidity Premium

Floor/Lowest

Policy space
4.
Challenges to climb the ladder
• Relevance to reduce volatility of $a$;
  • Reduces pressure on $q$ and $c$
  • Relevance of capital account regulation (IMF 2012; Gallagher et al. 2012; Williamson 2004)
  • Financial development (Paula et al. 2017)

• Central bank with double target: inflation and exchange rate stabilization
  • Inflation targeting inadequate (Eichengreen et al. 2011)

• Policy coordination: exchange rate and monetary stability supported by
  • Balanced fiscal policy
  • Moderate wage policy
    → Limited space for redistributive policies
5. Conclusion
• Currency hierarchy as structural feature of the international monetary and financial system
  • Global economic inequality due to growth differences
  • Different degrees of policy space
  • Relative changes of position within hierarchy not at short-term

• To climb the ladder: challenging strategy
  • Priority for stable and competitive exchange rate
  • Challenge for policy coordination and redistributive policies
  • Depends on specific external vulnerabilities, institutions and policy sets

• No universal strategy for all:
  • Relevance of current account surplus
  • Not all countries can climb up at the ladder at the same time
Thank you for the attention!

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### Financial development at top and bottom of CH: Ideal type of a central bank balance sheet

(Bindseil 2004)

#### Table 2.1 An ideal central bank balance sheet format

<table>
<thead>
<tr>
<th>Autonomous factors</th>
<th>Monetary policy operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreign currency incl. gold</td>
<td>Liquidity-absorbing OMO I (e.g. reverse operations)</td>
</tr>
<tr>
<td>Investment assets</td>
<td>Liquidity-absorbing OMO II (e.g. issuing debt certificates)</td>
</tr>
<tr>
<td>Other assets</td>
<td>Liquidity-absorbing standing facility</td>
</tr>
<tr>
<td>Banknotes in circulation</td>
<td>Reserves of banks (including those to fulfil required reserves)</td>
</tr>
<tr>
<td>Government deposits</td>
<td></td>
</tr>
<tr>
<td>Capital and reserves</td>
<td></td>
</tr>
<tr>
<td>Other liabilities</td>
<td></td>
</tr>
</tbody>
</table>

*Note: OMO: open market operations.*
United States  
(Bindseil 2004)

Table 2.7 US Fed: Factors affecting reserves, Wednesday 20 December 2000, in billions of US dollars

<table>
<thead>
<tr>
<th>Asset Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gold and other foreign assets</td>
<td>13</td>
</tr>
<tr>
<td>Float</td>
<td>4</td>
</tr>
<tr>
<td>Other assets</td>
<td>66</td>
</tr>
<tr>
<td>US government paper bought outright</td>
<td>515</td>
</tr>
<tr>
<td>Repurchase agreement</td>
<td>26</td>
</tr>
<tr>
<td>Discount window</td>
<td>0</td>
</tr>
<tr>
<td>Currency in circulation</td>
<td>587</td>
</tr>
<tr>
<td>Government deposits</td>
<td>5</td>
</tr>
<tr>
<td>Required clearing balances</td>
<td>7</td>
</tr>
<tr>
<td>Capital, other liabilities</td>
<td>18</td>
</tr>
<tr>
<td>Reserves of banks</td>
<td>7</td>
</tr>
</tbody>
</table>

**Total** 624

Source: Board of Governors' website.
Ghana
(Bindseil 2004)

| Table 2.9 Bank of Ghana financial statement, end December 2000, in billions of Cedis |
|---------------------------------|-------------------|------------------|
| Claims on government            | 3,169             | Notes in circulation | 1,857 |
| Other assets (net)              | 625               | Net foreign liabilities | 1,154 |
|                                 |                   | Capital accounts    | 511   |
| Claims on banks                 | 15                | Deposits of banks   | 287   |
| **TOTAL**                       | **3,809**         | **TOTAL**           | **3,809** |