Financial Liberalization and Economic Vulnerability in Brazil

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Main question:

What is the impact of financial liberalization on Brazil’s external vulnerability?

To respond:

We need a measure of vulnerability, and a way to associate it with liberalization.
Outline:

- Financial liberalization
- Minsky’s financial instability hypothesis
- Index of external fragility: the case of Brazil
- The VAR model: liberalization and fragility
- Conclusions
1 - Introduction

• Financial liberalization processes
• Financial fragility and financial crises
• Procyclical capital flows in developing countries
2 - Financial fragility

• Minsky’s Financial Instability Hypothesis

• Extension: open economies → financial fragility relates to a country’s ability to repay its debts.

• The index of external fragility - EFI (De Paula and Alves Jr., 2000): measures a country’s dependence on external funds to meet short-term financial obligations.
• Calculated as:

\[ EFI = \frac{M + E_I + E_{OS} + A + STC_{-1} + NIP_{-1}}{X + R_I + R_{OS} + RE_{-1} + FDI + L_{ML}} \]

Where:
M = imports  \hspace{1cm} X = exports
\[ E_{I,OS} \] = expenses on interest and other services
\[ R_{I,OS} \] = revenues on interest and other services
A = amortization of loans
STC = short term capital
NIP = net portfolio investment
RE = official reserves in foreign currency
FDI = foreign direct investment
\[ L_{ML} \] = medium and long term loans
• An alternative index, based on current account only:

\[
\frac{CE}{CR} = \frac{(M + E_I + E_{OS})}{(X + R_I + R_{OS})}
\]

Note: less volatile than EFI
3 - The case of Brazil

Figure 1: external fragility index (1992-2008)
Two different phases for EFI:

• Period 1992-2001: growing fragility and episodes of financial crises (Mexico, Asia, Brazil, Argentina)

• Period 2002-2008: declining EFI boom in commodity exports and liquidity in international financial markets

• Question: is the problem solved?
Figure 2: EFI and the capital account
Figure 3: the CECR index
4 - Empirical analysis

• VAR model: relation between liberalization and vulnerability

• Variables: EFI, 3 different measures of short-term capital flows in proportion to GDP, interest rate, exchange rate, tax on financial transactions in proportion to GDP

• Control variables: reserves, foreign debt to GDP ratio

• Quarterly data from 1-1995 to 4-2008
Results: impulse response functions
5 - Conclusion

• Financial liberalization, vulnerability in Brazil
• Results suggestive but not conclusive
• Explanation: two different phases - growing EFI until 2001, falling EFI from 2002-2008
• Disguised vulnerability in good times…
  • Problems: reliance on volatile capital flows and on commodity exports