Financial Stability in Emerging Europe

Piroska M. Nagy & Richard Fox

Presentation at Chatham House
December 12, 2005
Presentation Outline

> Financial stability in emerging Europe
  > Region emerging from a series of bank crises and rapid structural transformation
  > Rapid credit growth – "good" or "bad" type?

> New methodology developed at Fitch and its results for emerging Europe

> How worried should we be? Policy implications
Rapid Credit Growth – Basic facts 2004-1999

> Rapid growth in private sector credit in virtually all transition countries:
  > Fastest on average in last 5 yrs: CIS-3 and Baltics, from very low levels
  > Deepest financial intermediation: NMS and Croatia, with domestic credit at around 54% of GDP at end 2004

> Fastest growing asset class: credit to households, especially high growth in SEE and CIS, accounting for about 1/3 of total private sector credit at end-2004

> Maturities have lengthened, particularly in NMS

> Currency composition
  > NMS: about 1/3 of private sector credit, except Baltics where it is dominant
  > SEE and CIS: about ½ of private sector credit

> Financing of credit growth
  > Domestic deposit increase: significant except in Visegrad countries
  > External liability: very significant in Baltics, Slovenia, candidate countries
Rapid real growth in credit to non-government sector and to households, CEE

(Annual average, 1999-2004)

Source: EBRD
Real growth in credit to non-government sector & households, SEE

(Annual average, 1999-2004)
Forex borrowing is high in quite a few countries

Credit in forex/total credit (%) in 1999 and 2004
> Against the backdrop of fast financial deepening and also some cyclical factors (excess global liquidity & TOT gains), have systemic risks in the banking sectors of emerging Europe increased?

> A **new methodology to assess systemic risks** in the banking system, developed in Fitch.

> **Reason for it:** present methodology focuses on *either* on the macro causes of a crisis (exchange rate overshooting, asset bubble, interest rate shocks, reversal of capital inflows, etc), *or* on micro level bank weakness (capital adequacy, liquidity, weak governance/fraud etc). Yet the two approaches should be *combined* because strong banking systems can better withstand macro shocks than weak ones. Also, more attention must be paid to systemic factors

> **Objective:** monitoring tool of developing stress in the banking system
New methodology of identifying banking sector systemic risk

- The new methodology thus brings together Fitch’s detailed knowledge of banks and banking systems with recent “early warning” research

- Focuses on three complementary aspects of systemic risk:
  1. System Average Individual Rating (SAIR) – a measure of a banking system’s stand alone financial strength
  2. Systemic Risk Analysis of banking systems (SRA) – identifies specific systemic risks implicated in previous banking crises
  3. Macro–prudential Indicators (MPI) – based on the “early warning” literature, is a systematic analysis of key economic indicators which together have been shown to have had reasonable success anticipating banking crises
> Measures banking system stand-alone strength, based on Fitch’s Individual bank ratings, which assess the risk of a bank failing

> A simple asset-weighted average of Individual ratings for a critical mass of the banking system

> Includes all rated banks and significant unrated banks, in total covering at least two-thirds of banking system assets and usually more

> For unrated banks an internal assessment of the Individual rating is used

> SAIR = the average risk of a systemically important bank failing
Systemic Risk Analysis (SRA)

- Failure of one bank will not always trigger a system-wide crisis
- The SRA focuses on weaknesses present in most banks in a system rather than in individual banks
- Causes of recent systemic crises are grouped under 9 broad headings:
  - Inter-bank exposure
  - Borrower indebtedness
  - Foreign currency borrowing without FC resources
  - Exposure to the sovereign
  - Other common lending concentrations
  - Common deposit concentrations
  - Combination of low bank liquidity, low capital ratios and high share of demand deposits
  - Quality of regulatory systems and data transparency
  - Other systemic weaknesses
Systemic risk factors by region

Source: EBRD, Transition Report 2005
Aggregate Banking System Indicator (BSI)

- The SRA takes the form of a questionnaire, with overall risk determined by the degree of concern over each risk category
- More work needed to improve measurement and consistency across regions
- Results of the SAIR and SRA are highly correlated
- So the overall banking system indicator (BSI) currently relies mainly on the SAIR. The SRA is used as an internal reality check
- The BSI indicates overall system “quality” ranging from Very High (A), High (B), Adequate (C), Low (D) to Very Low (E)
Macro-Prudential Indicator (MPI)

> Based on the “early warning” literature, particularly that of Borio and Lowe (BIS, 2002)

> Critical indicators are;
  > private sector credit as % of GDP,
  > real asset price appreciation – equity, property or both
  > real exchange rate appreciation

> B&L looked at 34 countries between 1960-1999 and estimated threshold values for these indicators that optimised their model’s success rate

> Fitch has extended the sample to over 80 countries, including many more emerging markets

> Most recent crisis predicted was that of Dom.Rep. (2003)
Macro-Prudential Indicator (MPI) – continued

> Fitch calculates that about 70% of banking crises since the 1980s were preceded by over-lending

> But fewer emerging market bank crises, especially in Latin America, were of this type. Thus, extending the sample to include more emerging markets reduces the model’s overall success rate

> Data deficiencies also greater in emerging markets: series more volatile and subject to breaks, especially in Eastern Europe, and sometimes not available

> Fitch found it “optimal” to raise the credit:GDP threshold from 4% to 5% above trend but left other thresholds unchanged

> Preliminary work done with property prices and this will be extended

> Countries are graded 1 to 3 according to the degree of potential stress: Low, Moderate, High
Interplay of BSI and MPI

- Overall systemic risk increases as either intrinsic banking system risk (BSI) or potential macro-prudential stress (MPI) increases.

- Macro-prudential stress is of greater concern in weaker banking systems, less able to absorb further weakening in their balance sheets.

- Thus, A and B-rated banking systems can absorb quite a high level of macro-prudential stress before overall risk increases.

- By contrast, even a moderate degree of macro-prudential stress raises overall risk for a D or E-rated banking system.

- All E-rated banking systems are deemed very high risk.
<table>
<thead>
<tr>
<th>Banking System Indicator</th>
<th>Macro-prudential Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>A</td>
<td>Luxembourg, USA</td>
</tr>
<tr>
<td></td>
<td>Australia, Netherlands, UK</td>
</tr>
<tr>
<td>B</td>
<td>Belgium, Canada, Chile, Denmark, France, Sweden, Switzerland</td>
</tr>
<tr>
<td></td>
<td>Estonia, Finland, Greece, Ireland, Italy, Portugal, Spain</td>
</tr>
<tr>
<td></td>
<td>South Africa</td>
</tr>
<tr>
<td>C</td>
<td>Austria, Czech R., Germany, Korea, Malta, Mexico, Slovenia</td>
</tr>
<tr>
<td></td>
<td>Iceland</td>
</tr>
<tr>
<td>D</td>
<td>Brazil, Cyprus, India, Japan, Kazakhstan, Poland, Romania</td>
</tr>
<tr>
<td></td>
<td>Bulgaria, Croatia, Latvia, Lithuania, Russia</td>
</tr>
<tr>
<td></td>
<td>Hungary</td>
</tr>
<tr>
<td></td>
<td>Fitch downgrade</td>
</tr>
<tr>
<td>E</td>
<td>Argentina, Azerbaijan, China, Egypt</td>
</tr>
<tr>
<td></td>
<td>Dominican Republic Iran</td>
</tr>
<tr>
<td></td>
<td>Dec 6 2005</td>
</tr>
</tbody>
</table>
Results for CEE

> **B2, Estonia:** One of only 5 emerging markets with a BSI of B (high quality), on a par with most developed country systems. Moderate macro-prudential risk.

> **C1, Czech, Malta, Slovenia:**
  Among 10 emerging markets with “adequate” banking systems and low macro-prudential risk

> **D1, Cyprus, Poland, Romania, Slovakia, Ukraine:**
  Weak systems but with low macro-prudential risk

> **D2, Bulgaria, Croatia, Latvia, Lithuania:**
  Weak systems with moderate macro-prudential risk

> **D3, Hungary:** Weak system with high risk of macro-prudential stress
Results for SEE (EBRD only)

> D1, FYR Macedonia
Weak systems but with low macro-prudential risk

> D/E2, Albania, Bosnia-Herzegovina
Weak systems but with moderate macro-prudential risk

> E2, Serbia:
Very weak systems with moderate macro-prudential risk
How worried should we be?
Policy considerations
This is financial deepening

Non-government credit/GDP in %, 2004

Source: EBRD, updating and extending the model by Cottarelli et al
Financial system are still underdeveloped

- Share of foreign banks (% of total)
- Total loans (% of GDP)
- Total bank assets (% of GDP)
- Total deposits (% of GDP)
We seen an even faster financial deepening before without crash

- Greece, Ireland, Portugal and Spain in the run-up to the euro have seen even faster financial deepening from higher initial levels
- It has not resulted in a weakening of the banking system
- However, the rapid balance sheet expansion of both the private sector and the government may have contributed to a prolonged lower-than-potential growth in Portugal
But even when moving to new equilibrium, rapid credit growth must be carefully managed
Policy implications (1)

> Countries with stronger banking systems, high foreign ownership, and EU-aligned banking supervision: overt banking crisis may not be likely but prolonged underperformance of growth is very possible: “risks to growth” (Max Watson)

> Macro management/fiscal policy should be key. However, making fiscal space for private sector growth may not be likely in key Visegrad countries

> Specific prudential instruments (LTV limits, marginal reserve requirements, dynamic provisioning)

> An issue: Basel II’s home-host issue raises systemic questions.
Policy implications (2)

> Countries with weak systems and weak supervision are more prone to have a “classical” overt banking crisis
  > Improve banking supervision & prudential regulation. High capital requirements are needed because Basel I is quite meaningless. Shift to the simple Basel II methods (“Standardized Approach”) may make sense in emerging market economies contrary to what the IMF/World Bank says
  > Transparency, governance → legal system
  > Market development (credit bureaus)
  > Crisis mitigation: cost of crisis may be limited (low monetization) and reserves in many countries are high.
Financial Stability in Emerging Europe

Piroska M. Nagy & Richard Fox

Presentation at Chatham House
December 12, 2005