

# *Preserving Access to Finance during the Global Crisis*

## *Session 4*

### *Crisis Resilience of Financial Markets*

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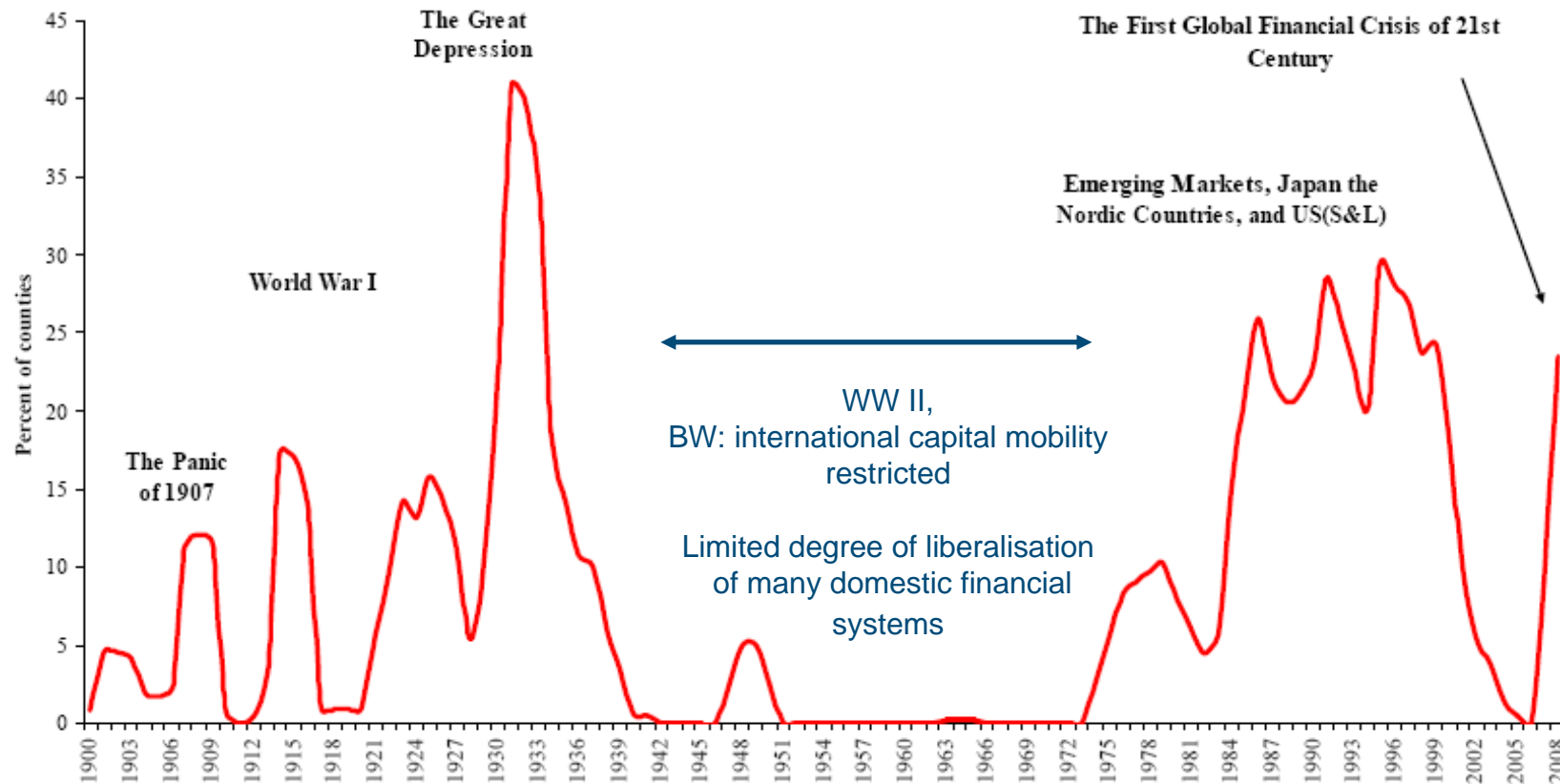
Die Zukunftsförderer



- 1) Enhancing Crisis Resilience of Financial Markets – a hopeless case?
- 2) Key vulnerabilities: credit and liquidity risk
- 3) Crises amplifiers in emerging markets
- 4) Policy implications – traditional versus new
- 5) EMEs in the global financial crisis
- 6) Conclusions

# Enhancing Crisis Resilience of Financial Markets – a hopeless case?

*Proportion of Countries with Banking Crises, 1900-2008  
Weighted by Their Share of World Income*



Source: Reinhart and Rogoff (2008)

## Three group of countries

- **Industrial countries / mature economies**  
(financially open, no / limited foreign currency borrowing / lending)
- **Emerging market countries**  
(increasingly financially open, substantial degree of foreign currency borrowing / lending)
- **Developing countries**  
(still financially closed, some domestic financial sectors to a significant extent repressed)

# Enhancing Crisis Resilience of Financial Markets – a hopeless case?



## Crises per country: EMEs most vulnerable in the 1990s

	Total	Banking Crisis	Currency Crisis	Debt Crisis	financial openness (mean)*
<b>All countries (161)</b>					
1990-1999	1.07	0.46	0.57	0.04	0.44
2000-2006	0.19	0.03	0.11	0.05	0.00
2007	0.01	0.01	0.00	0.00	0.00
<b>High-income OECD countries (23)</b>					
1990-1999	0.91	0.17	0.70 ←	0.04	2.37
2000-2006	0.09	0.00	0.09	0.00	0.00
2007	0.09	0.09	0.00	0.00	0.00
<b>EME's (25)</b>					
1990-1999	1.64	0.72	0.56 ←	0.08	0.44
2000-2006	0.52	0.08	0.12	0.04	0.00
2007	0.00	0.00	0.00	0.00	0.00
<b>Others (113)</b>					
1990-1999	1.04	0.46	0.55 ←	0.04	0.05
2000-2006	0.20	0.03	0.12	0.06	0.00
2007	0.00	0.00	0.00	0.00	0.00

Source: Laeven and Valencia 2008, Chinn and Ito (2008)

\*no financial openness index values for Brunei, Cayman Islands, Gibraltar, Luxemburg, Serbia

- Why are financial markets crisis-prone?
- What policies can be pursued to enhance the crisis resilience of financial markets – in mature economies, developing countries and emerging markets?
- What are factors making emerging markets more vulnerable?

## Key vulnerability: Credit risk



- Banks do bad lending, threatening their solvency

### Reasons – Macro:

- unsustainable fiscal and monetary policies (credit booms and asset bubbles) – policy mistakes

### Reasons – Micro:

- information and incentive problems (moral hazard, adverse selection) – inherent in a market economy
- financial repression – government intervention / misuse of the financial sector

### Policy implications

- Strengthening the macroeconomic policy framework
- Liberalization of the financial sector
- Prudential regulation and supervision
  - Capital adequacy ratio (buffer / incentives)
  - Single exposure limits (diversification)
  - Ownership and governance regulation (incentives)

## Key vulnerability: Credit risk



- Credit risk at the centre of financial sector reforms in mature economies since the 1970s: financial crises rare events
- Recurrent episodes of crises in emerging markets and developing countries: wake-up call to follow the western benchmark model of macroeconomic policies and financial sector regulation and supervision

## Key vulnerability: Liquidity risk



- Banks and other financial intermediaries perform maturity transformation, threatening their liquidity in the case of a sudden withdrawal of deposits
- Liquidity risks arising from asymmetric information among depositors (Diamond/Dybvig 1983) and / or about the solvency of financial institutions (Calomiris and Gorton 1991)
- Classical cause of systemic financial crises (Bagehot 1873) in mature market economies before WWII

### Policy implications in mature economies (after 1933)

- Deposit insurance
- Establishment of central banks: lender of last resort
- Separation of banks and markets

### Policy record of mature economies (until 2007)

- Systemic financial crises in mature economies very rare

## Key vulnerability: Liquidity risk



Until 2007 financial crisis:

- Liquidity risk increasingly neglected in regulatory and supervisory efforts of mature market economies (Brunnermeier et al. 2009)
- Separation between banks and markets abolished
- Reason: Liquidity follows solvency theorem (efficient markets paradigm) + Policy record itself
- Implications for EMEs and developing countries: Liquidity risk not seen as a major cause of financial crises in EMEs and developing countries

## Credit and liquidity risks in emerging market economies and developing countries



1990s: Increasingly difficult to explain systemic crises in emerging markets with credit risk alone

Insight:

emerging markets prone to liquidity risk given the dominance of foreign currency borrowing / lending

## Sources of liquidity risk in foreign currency

- Cross-border foreign currency borrowing: original sin (Eichengreen and Hausmann 1999)
- Foreign currency borrowing in domestic markets: banks (foreign currency deposits) and households / businesses (Chang and Velasco 2000)

Liquidity risk in foreign currency:  
risk of sudden stop / reversal of capital flows

Comparable to classical bank run

Under original sin and foreign currency borrowing:  
LOLR activities of central banks limited

(in particular under a pegged exchange rate regime)

EMEs vulnerable due to limited ability to cope with  
liquidity risks

Moreover: sudden stop / capital flow reversal has  
exchange rate implications => exchange rate risk  
materialises

Crisis transforms exchange rate risk into credit risk

## Fighting original sin and fx borrowing / lending

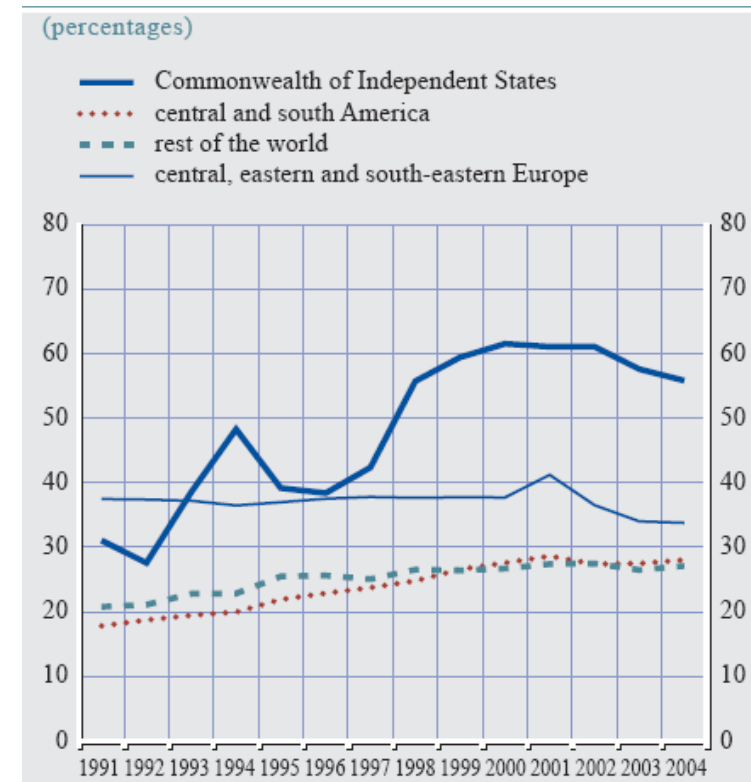
(also in development finance)

But until early 2000s, progress in fighting original sin and unofficial dollarization/ euroization has been slow

Reasons:

- Lack of trust in local currency
- Institutional weaknesses
- Financial integration
- Exchange rate regime

Deposits denominated in foreign currency as a proportion of total deposits – averages, 1991 - 2004



Source: ECB (2007)

### EMEs in a search for LOLR alternatives

#### Emerging Asia approach: self-protection

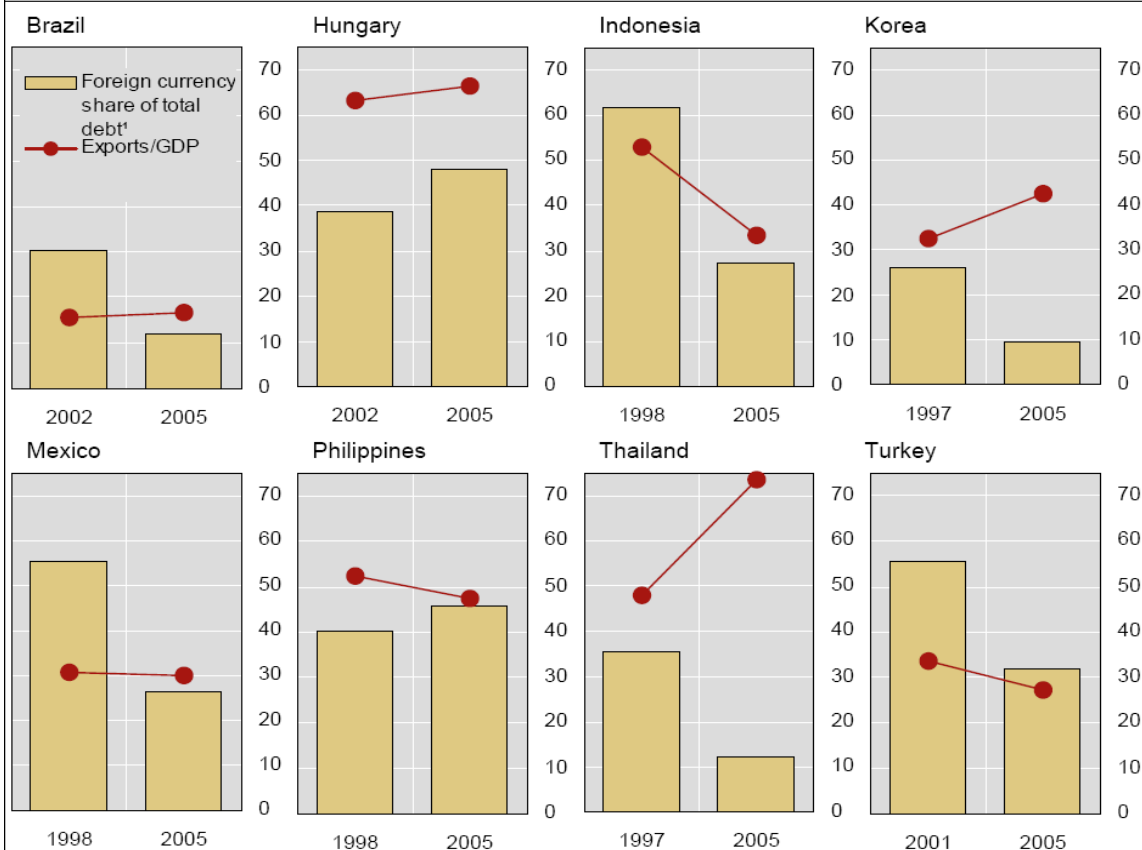
(increasingly followed by other non-emerging European EMEs)

- Macroeconomic stability
  - Current account surpluses (reducing net debtor status, building up net creditor status)
  - Fx reserve build-up
  - Cautious approach to financial opening / liberalization (de jure and de facto)
- Progress in development of local currency bond markets

# Policy implications - new

Graph 2: The foreign currency share of total debt and the exports/GDP ratio

In per cent



<sup>1</sup>These estimates cover debt contracts between residents as well as debt vis-à-vis non residents. The earlier year was a year when the foreign currency share of debt peaked during the 1995-2005 period.

Sources: IMF; national data; BIS.

Decline in use of foreign currencies in domestic and external borrowing

Source: Turner (2007)

### Emerging Europe approach: financial integration

- Complete opening up of financial markets (de jure and de facto)
- High degree of fx borrowing and unofficial euroization
- Aiming at indirect access to LOLR via subsidiaries of EU-15 parent banks
- Fx reserve build-up and – in some countries – anti-cyclical regulatory and supervisory policies (Croatia, Serbia)

Approaches taken have not prevented the recent crisis ...

... but facilitated crisis management

**Emerging Asia** (and other non-European EMEs):

- Ability to conduct traditional anti-cyclical macroeconomic policies (in particular countries with comparatively closed capital accounts, i.e. China)

**Emerging Europe:**

- Indirect liquidity and solvency support via the international LOLR and EU-15 governments for the banks in the region (supported by IFIs)

- Enhancing crisis resilience of financial markets – possible, but never perfect: Credit and liquidity risks
- Challenges in principle the same for mature economies, EMEs und developing countries
- International efforts to strengthen and harmonise framework for prudential regulation and supervisions, including macro-prudential aspects

- EMEs face additional liquidity risks due to foreign currency borrowing – cross-border as well as domestically – as intl. LOLR is not available
- Fostering the development of local currency markets and the use of the domestic currency in the domestic financial system – no intl. LOLR needed
- With foreign currency borrowing: LOLR substitutes needed for financially open economies

- Emerging Asia and emerging Europe opted for different substitutes
- Intl. LOLR substitutes did not prevent crisis ... but avoided a full-fledged financial meltdown
- However: Asian approach seems to provide domestic policies with (more) options to fight the crisis

Thank you very much for your attention

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