Macroprudential policy dimensions – cyclical vs. structural

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Outline

1. Why macroprudential?
2. Macroprudential policy and the pre-crisis credit boom in CESEE
3. Lessons from CESEE for other countries
WHY MACROPRUDENTIAL?
Why macro-prudential policy?

- Asset price boom-busts can create severe havoc
- Prevention of boom-busts desirable
- Monetary policy blunt tool to prick asset price bubbles
- Alternative: macro-prudential policy
Difference between micro and macro prudential

- **Micro**-prudential regulation designed to ensure the safety of *individual* financial institutions
- **Macro**-prudential focuses on safety of *system as a whole*
  - (In small countries with few big banks good *micro-prudential* is indispensable for safety of system)
- Macro-prudential focuses on *externalities*: impact actions financial institutions can have on other institutions and markets.
Types of externalities that pose systemic risks

- **Common exposure**—which make system vulnerable to even a small shock
  - Examples:
    - Financial contracts with frail institutions
    - Exposure to same underlying risks

- **Boom and bust cycles** linking financial and economic activity – also known as *pro-cyclicality*
Focus of macroprudential policy

- Resilience of the financial system (structural policy)
  - Crisis prevention
  - Crisis management

- Credit flow (cyclical policy)
Macroprudential structural policy

Crisis prevention:
- Lean against the “boom”: reduce the amplitude of financial cycle
- Minimize cost of economic crisis: build institutional resilience

Crisis management:
- Bank resolution schemes
- Deposit insurance
- Memorandum of Understanding among authorities, information sharing and policy coordination
- Crisis simulation exercises and agreements on burden sharing
- Liquidity support
Macroprudential cyclical policy

Credit flow:
- Limit excessive leverage
- Influence supply and cost of credit

Two types of tools:
- those that limit credit supply (CAR, interest rates, reserve, liquidity requirements etc.)
- those that limit credit demand (Loan-to-Value ratio, Debt to Income Ratio, Maturity caps and etc.)
Macroprudential policy focuses on financial cycle—not on business cycle.
One important focus of both cyclical and structural macroprudential policies: credit booms

Concurrence of Credit Booms, 1978-2008

Source: Bakker, Igan, Dell’Ariccia, Tong, Vandenbusshe, Laeven (2012), “Policies for Macrofinancial Stability: How to deal with Credit Booms” (IMF Staff Discussion Note 12/06)
Credit booms are usually accompanied by loose policies.

Economic and Financial Policy Frameworks and Credit Booms, 1970-2009
(Frequency distribution, percent)

- Exchange rate regime
  - Fixed
  - Floating

- Monetary policy
  - Loose
  - Tight

- Fiscal policy
  - Loose
  - Tight

- Banking supervision
  - Not stringent
  - Stringent

Source: Policies for Macrofinancial Stability: How to deal with Credit Booms (IMF Staff Discussion Note 12/06)
Many credit booms result in banking crisis

Credit Booms and Financial Crises: Examples of Bad Booms

Source: Bakker, Igan, Dell’Ariccia, Tong, Vandenbusshe, Laeven (2012), “Policies for Macrofinancial Stability: How to deal with Credit Booms” (IMF Staff Discussion Note 12/06)
Or are followed by subpar growth

- One in three credit booms end with banking crisis
- 60 percent by subpar growth
- Two thirds of credit booms are followed by banking crisis or subpar growth

That also means that one third of credit booms does NOT end badly
Can we distinguish “bad” credit booms from “good” ones?

“Bad” credit booms tend to:
- be larger and last longer
- start with a higher credit-to-GDP ratio

Magnitude of rise of credit-to-GDP ratio has been identified as predictor of whether boom ends badly:
- False positives in some countries with rapid credit growth (predict crises that do not occur)
- Will miss some crises in countries with relatively moderate credit growth
Macro prudential policy and credit booms

Macro prudential policy aims to:
- Mitigate the boom
- Build up resilience for when the bust comes
- Mitigate the bust
MACROPRUDENTIAL POLICY IN CESEE
CESEE countries have simpler financial systems than advanced countries

- Financial systems are typically bank-dominated
- They don’t have CDOs (collateralized debt obligations) and MBS (mortgage-backed securities) which played key role in the US crisis
- Financial system exposures are much more transparent
- Key issue for CESEE: how to prevent credit-boom busts
In the 1990s, CESEE had many banking crises

Banking Crises in 1990s

Thereafter prudential frameworks were strengthened and banking systems opened to foreign competition.
The opening of banks to foreign competition had unintended side-effects

- Strengthened banks from a *micro* perspective
- But it also set the stage for large banking capital-inflows fueled domestic demand boom
Between 2003 and 2008 there were large funding flows of Western European banks to CESEE...
...which fueled and financed a credit boom...

Credit-to-GDP Ratio and Its Change (Percent of GDP)

Increase of Credit-to-GDP Ratio and Increase of Foreign Funding to Banks, 2003-08

\[ y = 0.6915x + 3.9528 \]

\[ R^2 = 0.5733 \]
...which led to high current account deficits and overheating economies.

Note: CA deficit for EST, LVA and LTU: 2007.
Big question was how to rein in credit growth
Foreign supervisors did not care about risky activities of their banks in CESEE

Major Euro area Banking Groups With Subsidiaries in Eastern Europe, 2006
(Share of assets of CEE subsidiaries as percent of group assets)

Note: Excludes subsidiaries in Russia.
During boom floaters could let exchange rate appreciate, which tightened monetary conditions.

Nominal Effective Exchange Rate (Index, 2002=100)

Contributions to Monetary Conditions, 2003-07 (Percent)

Tighter conditions

Real Interest Rate

Monetary Conditions Index

REER
As a result, they built up less imbalances, had less pronounced booms, and lower current account deficits.
Capital flows management was not an option in EU member states

The EU member states
(By the year of accession)
Many tightened macroprudential policies

Cumulative Changes in Strength of Prudential Regulation

Romania and Bulgaria join the EU

Measures targeted capital and liquidity

Number of Macroprudential Measures in place by 2008Q1

Source: Vandenbussche, Vogel and Detragiache (2015), "Macroprudential Policies and Housing Prices - A New Database and Empirical Evidence for Central, Eastern and Southeastern Europe", Journal of Money, Credit and Banking
And to lower extent eligibility and provisioning

Number of Macroprudential Measures in place by 2008Q1

Romania, Bulgaria, Serbia, Croatia most active

Number of Macroprudential Measures in 2008Q1

Yet credit boom continued

Cumulative Growth of Domestic Credit to Private Sector
(Percent of GDP, 2002=0)
Theory was that higher capital requirements would raise lending costs.
As would higher liquidity requirements
Nominal lending rates did not rise much because risk premia fell—despite rising imbalances.
And *real* lending rates fell as inflation accelerated.
High nominal and low real interest rates boosted credit growth

- **From lenders** perspective nominal lending rates in euros were higher than in Western Europe → high *supply* of credit

- **From borrowers** perspective real lending rates were low → high *demand* for credit
While they did not stop credit boom, the measures built up resilience.
Capital buffers were much higher than in Western Europe.

Capital to Assets Ratio, 2007

Capital Adequacy Ratio, 2007

Note: EU15 countries in blue. Data for ITA, BIH, DEU, ROU, ESP, UKR, TUR from FSI database, for the rest of the countries – from GFSR Apr-2010.
And massive banking crises in CESEE have been avoided

What more could have been done?

- If FX loans had been forbidden, credit boom would have been less of a problem.
- FX borrowing was partly the result of low interest rates on FX loans (example: swiss franc mortgages).
- If you could not get swiss franc mortgages, mortgage growth would have been less.
Forbidding FX loans would not just have reduced *demand* for loans, but also *supply*

- Parent banks lent to subsidiaries in euros
- Subsidiaries could not have open currency position and therefore lent to customers in euros
- If subsidiaries could not lend in euros, they would have needed to hedge → very difficult given amounts involved.
Pre-crisis, large differences in FX linked to external funding, not deposit euroization

Foreign Currency Loans, Foreign Currency Deposits and Exposure of Western Banks, 2008

\[ y = 0.8836x + 5.8917 \]
\[ R^2 = 0.5871 \]
LESSONS FROM CESEE FOR OTHER COUNTRIES
Lessons from CESEE for other countries

- Macro-prudential policies can make the banking system safer
  - Strong macro-prudential policy during credit boom make banking system more resilient
  - It can create large buffers that increase the safety of the banking system during the subsequent downturn
  - This helps reduce the costs for governments
Lessons from CESEE for other countries-2

- Macro-prudential policy alone may not be able to stop credit booms
  - Credit boom continued despite strong macro-prudential measures
  - Of course, credit boom would likely have been even stronger without measures
  - If credit demand is very strong and lending very profitable, macro-prudential measures will be evaded (e.g., banks shift to direct cross border lending).
Lessons from CESEE for other countries-3

- Academic literature on fixed vs floating exchange rates advocated fixed exchange rates when large capital flows can wreak havoc with the exchange rate, harming the tradable sector.
- The experience of EE underscores that it is all a bit more complicated.
  - Capital inflows-fueled credit booms may be easier to contain under floating exchange rate
  - Damage to tradable sector may be less under floating exchange rate as well
Finally, boom-busts in CESEE were costly not so much in terms of average growth, but in terms of volatility.

Note: High/Low Current Account Deficit – average over countries which had average current account deficit higher/lower than 9 percent of GDP in 2003-07.
And in much higher unemployment during the crisis

Note: High/Low Current Account Deficit – average over countries which had average current account deficit higher/lower than 9 percent of GDP in 2003-07. The chart does not include Montenegro.
Thank you