WORLD BANK- ECA

Europe and Central Asia (ECA) Countries' Banking Crises

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2009: Expect a Difficult Year

- The escalation of the financial crisis in the second half of 2008 and the rather bleak outlook for 2009 has placed and will continue to place pressure on banks' regulatory capital, both through write downs of asset values and outright losses, as well as through expected increases in non-performing loans (NPLs).
- Liquidity problems will be followed by solvency problems in banks, NBFIs, households and the corporate sector.

Main Culprits of the Crisis in All Countries (1)

- Poor bank underwriting standards;
- Fast or excessive credit growth, leading to under-provisioning. Most past crises preceded by excessive credit growth;
- Rapid Credit Growth funded abroad (High L/D ratios);
- High FX risks in banks' mortgage loan portfolio:
  - high loan-to-value (L/V) ratios (70-80%),
  - with maturity & currency mismatches;

Example: CHF denominated mortgage loans, at a time local currency depreciates (FXR) and housing prices are falling (p^d), it might lead to negative equity by borrowers, and higher probability of default and foreclosures:

LTV in local currency = $[(L^{CHF}.FXR)/ V(1- p^d)]$

Depletion of Borrower's Equity in Home Loans

For loan-to-value ratios of 70% and 80%, depreciation of the exchange rate and reduction of property prices can lead quickly to negative equity values for bank borrowers (i.e.; numbers in excess of 100% in tables below).

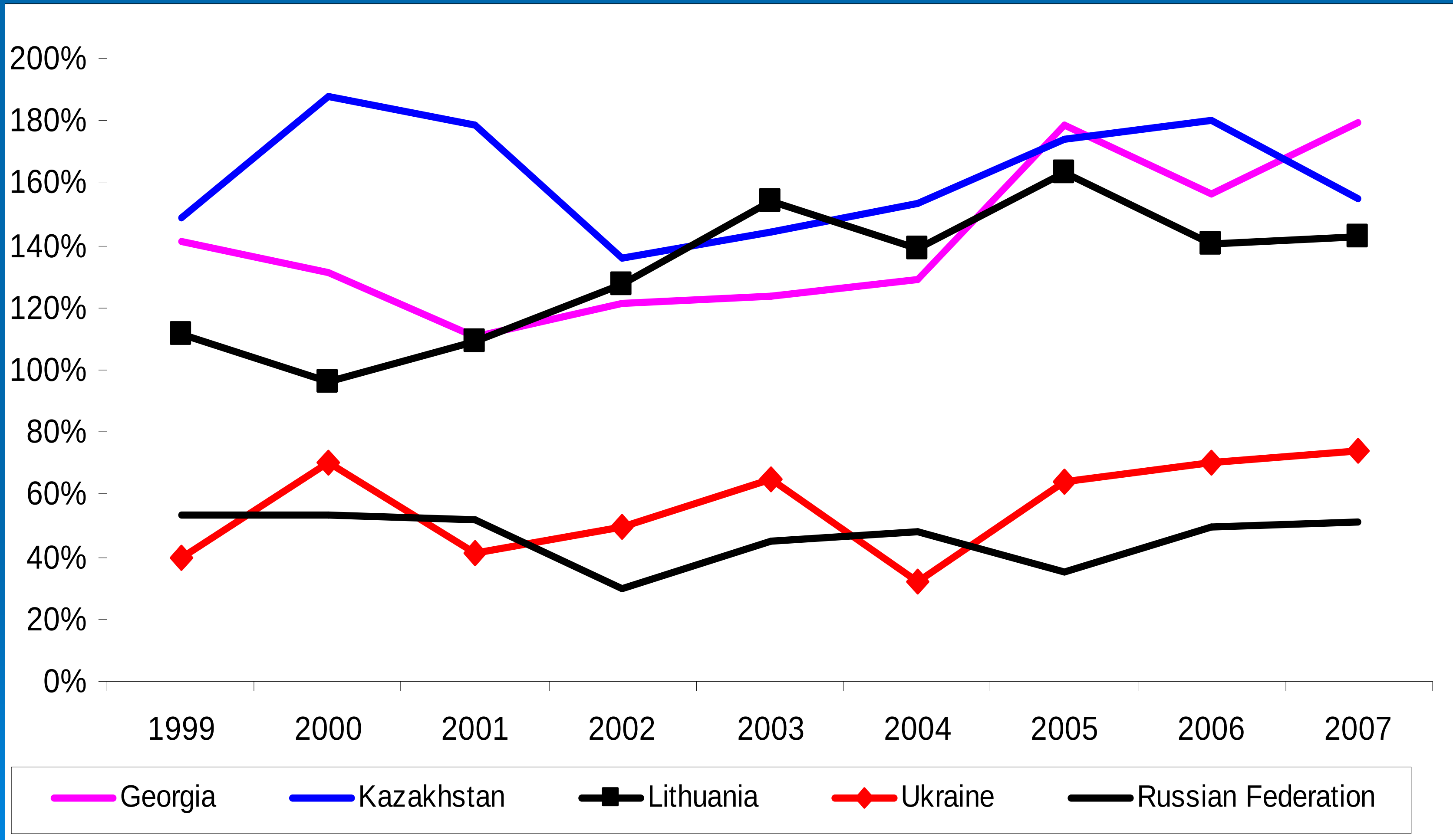
Starting loan to value ratios of 70%		Exchange rate depreciation 0%	10%	20%	30%
Real estate price decline	10%	78%	86%	93%	101%
	20%	88%	96%	105%	114%
	30%	100%	110%	120%	130%

Starting loan to value ratios of 80%		Exchange rate depreciation 0%	10%	20%	30%
Real estate price decline	10%	89%	98%	107%	116%
	20%	100%	110%	120%	130%
	30%	114%	126%	137%	149%

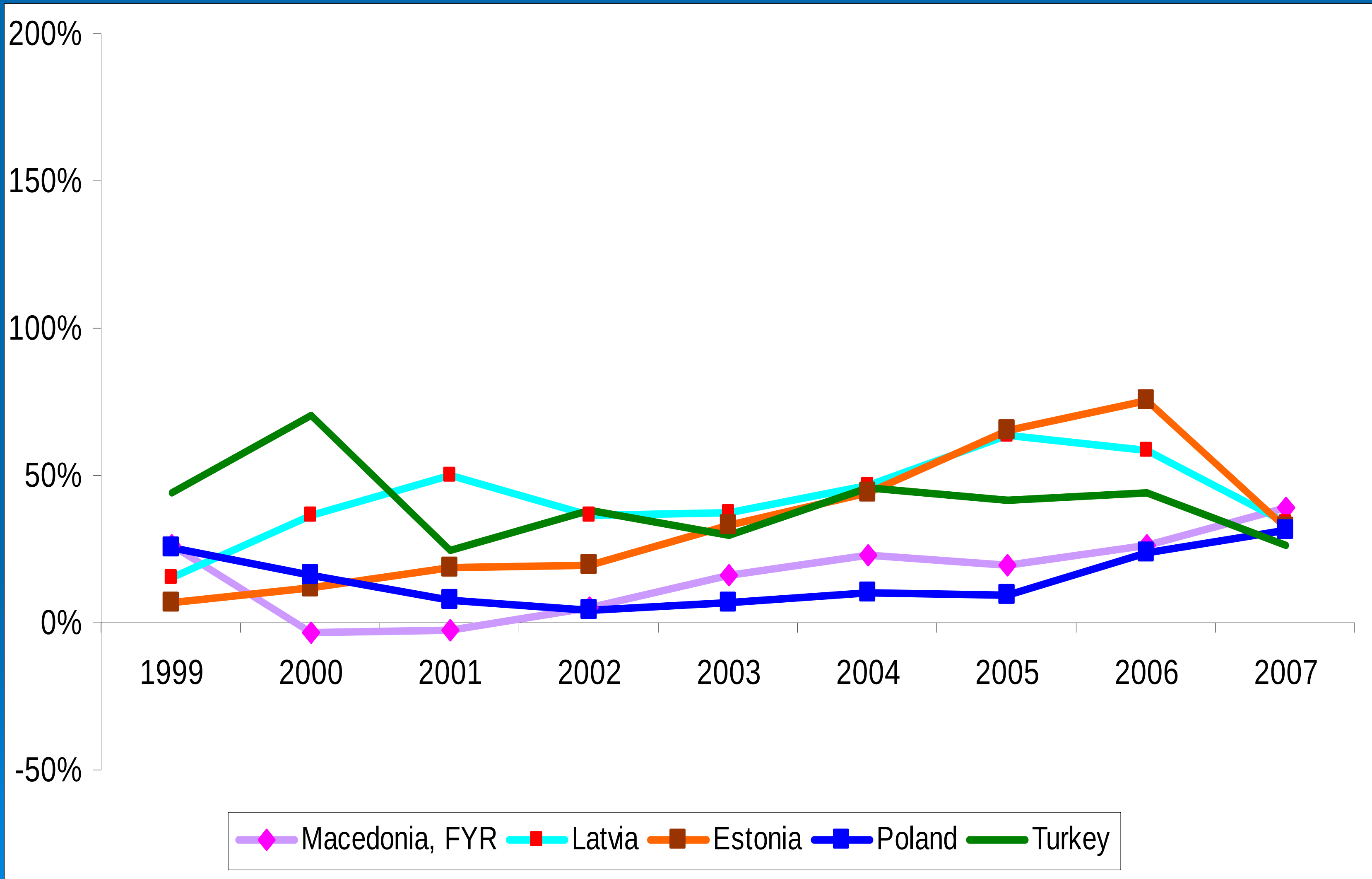
Main Culprits of the Crisis in All countries (2)

- Over-indebted households: excessive (debt service / disposable income) ratios;
- Poor bank risk management systems & Incentives: expectation of high liquidity and low risk & high rewards for bankers;
- Overleveraged financial institutions (SIVs, Conduits, off-balance-sheet operations,...);
- Lax and under-resourced supervision: poor loan classification and provisioning systems, few and inexperienced on-site inspectors & lack of political support.

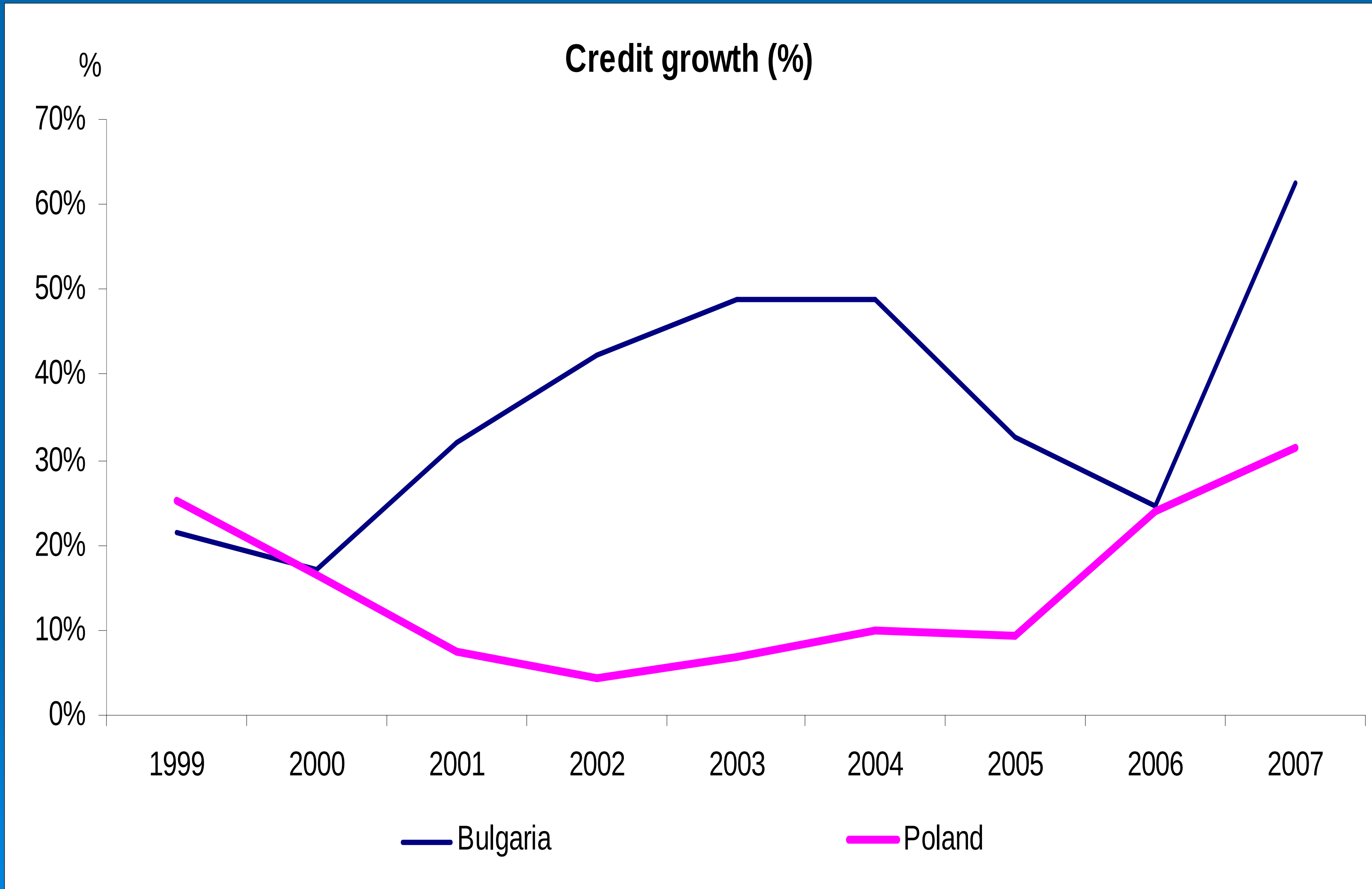
Fastest Credit Growth Countries
(40-170% per year)



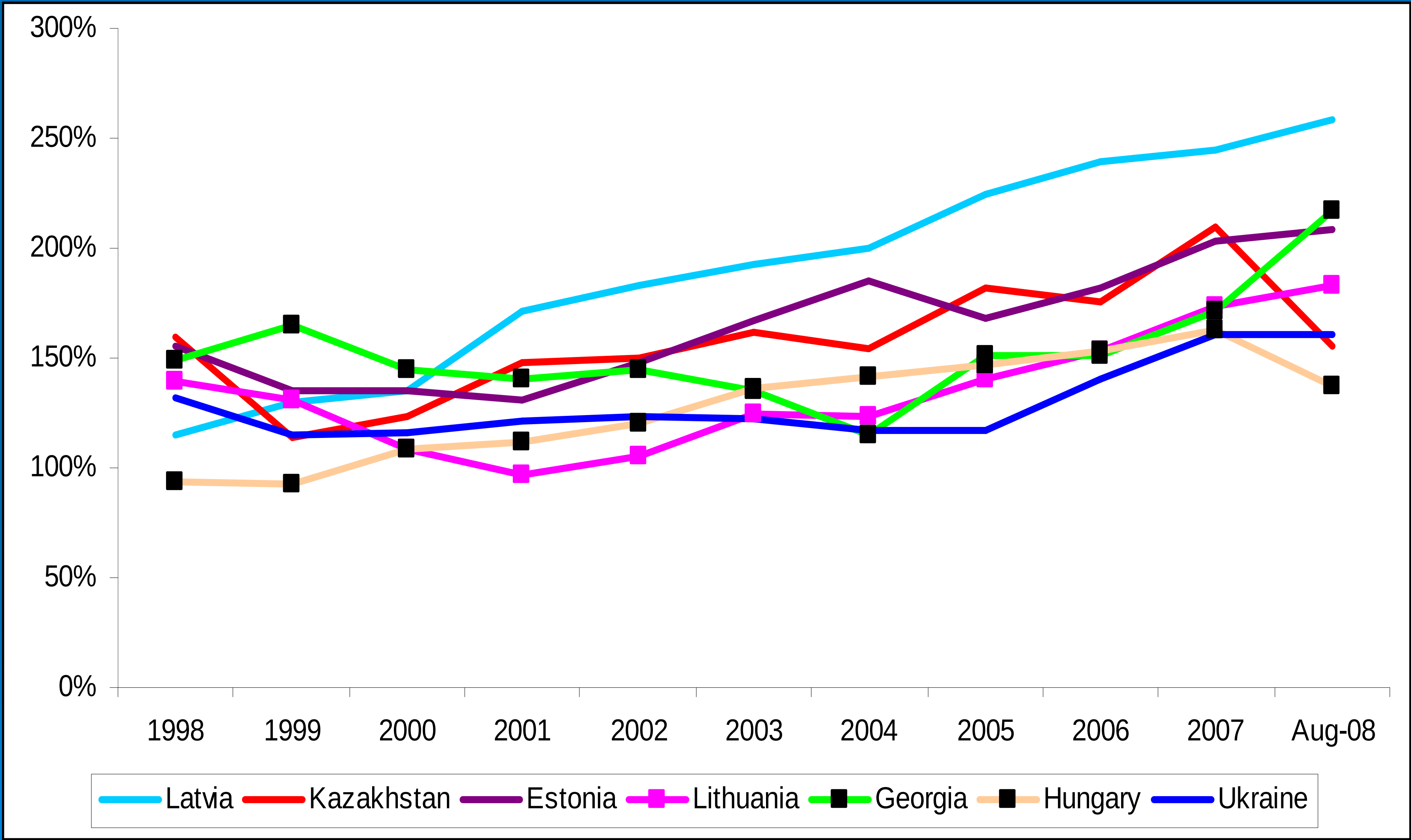
Fast Credit Growth Countries
(Under 50% per year)



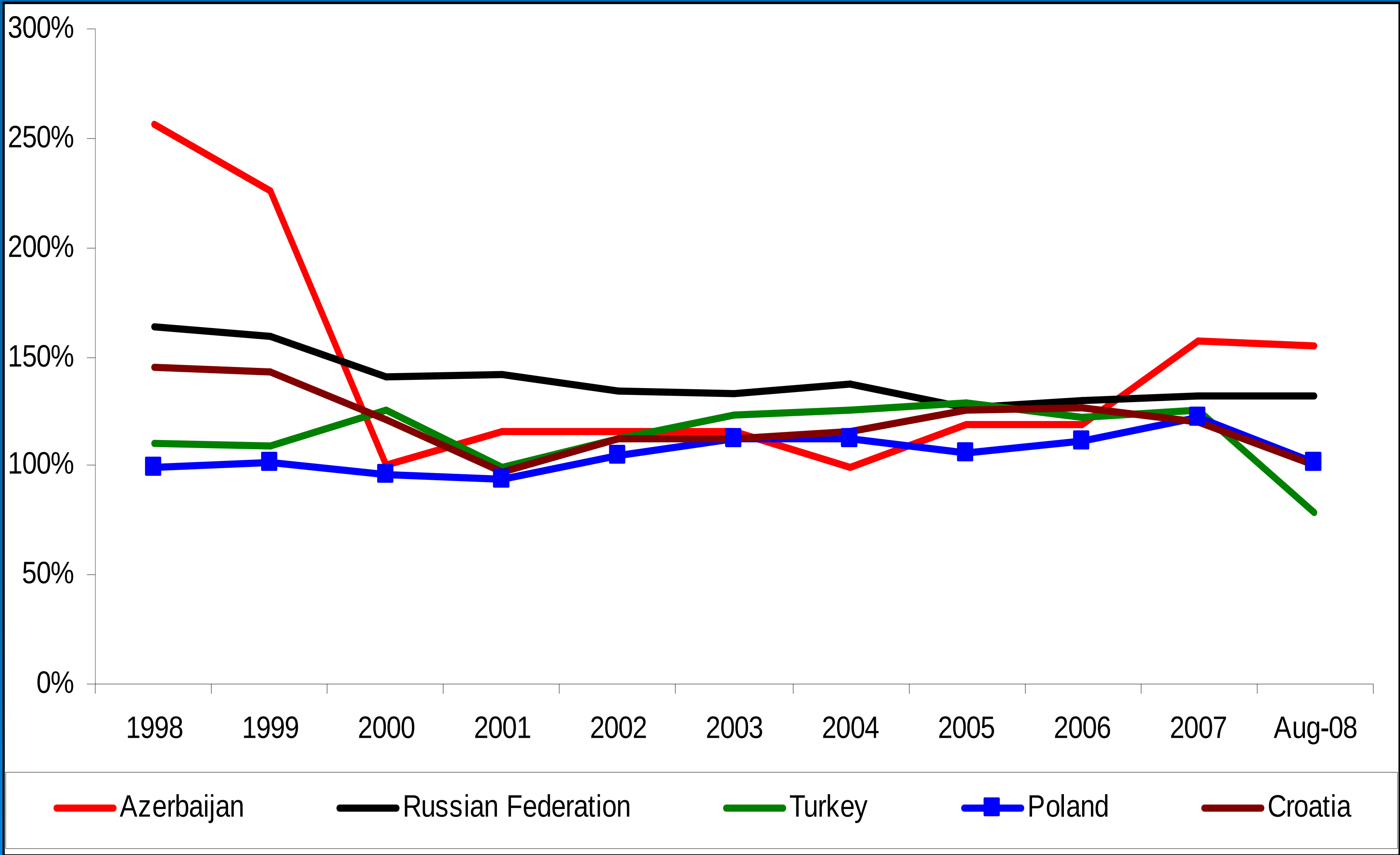
Bulgaria and Poland: Credit growth (%)



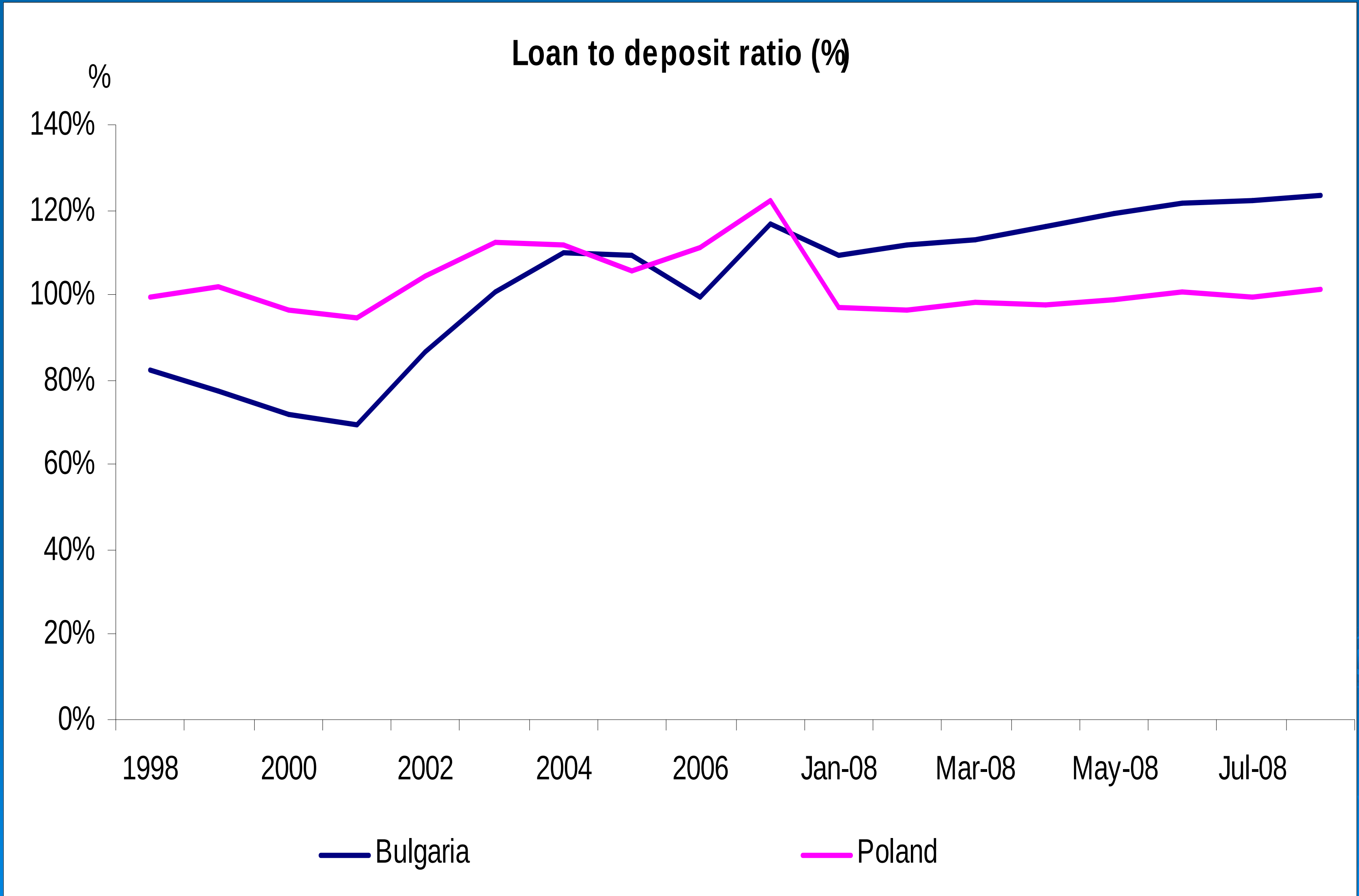
Highest (L/D) Ratios



Moderate to High (L/D) Ratios



Bulgaria and Poland: (L/D) Ratio



Pressure Points: (L/D) Ratios peaked in 2007

Country	1988	2003	2007	2008
Hungary	93.4	135.7	163.2	137.0
KZK	159.3	161.6	210.0	155.0
UKR	132.1	122.0	160.7	164.0

⇒Very High Roll-Over & Re-Financing Risks

⇒ Great Concern about Parent Bank Lines of Credit

Macro-Financial Imbalances

- Very large financing external gaps in 2009:
  - Hungary: E 20 Billion;
  - UKR= $35 Billion,
  - KZK= $ 20 Billion.
- Very difficult illiquid and risk-averse international markets;
- Currency regimes & policy choices:
  - Currency Boards: Higher Inflation & Faster Growth
  - Floating Currencies: Lower Inflation & More Modest Growth
- Risk of depletion of Central Banks' FX reserves:
  [(CAD + Debt Service)/ FX Reserves of CB]

Note: Debt Service includes amortizations of M & L.T. debts, plus S.T. debt repayable in (t-1).

External financing gap ratio (%)

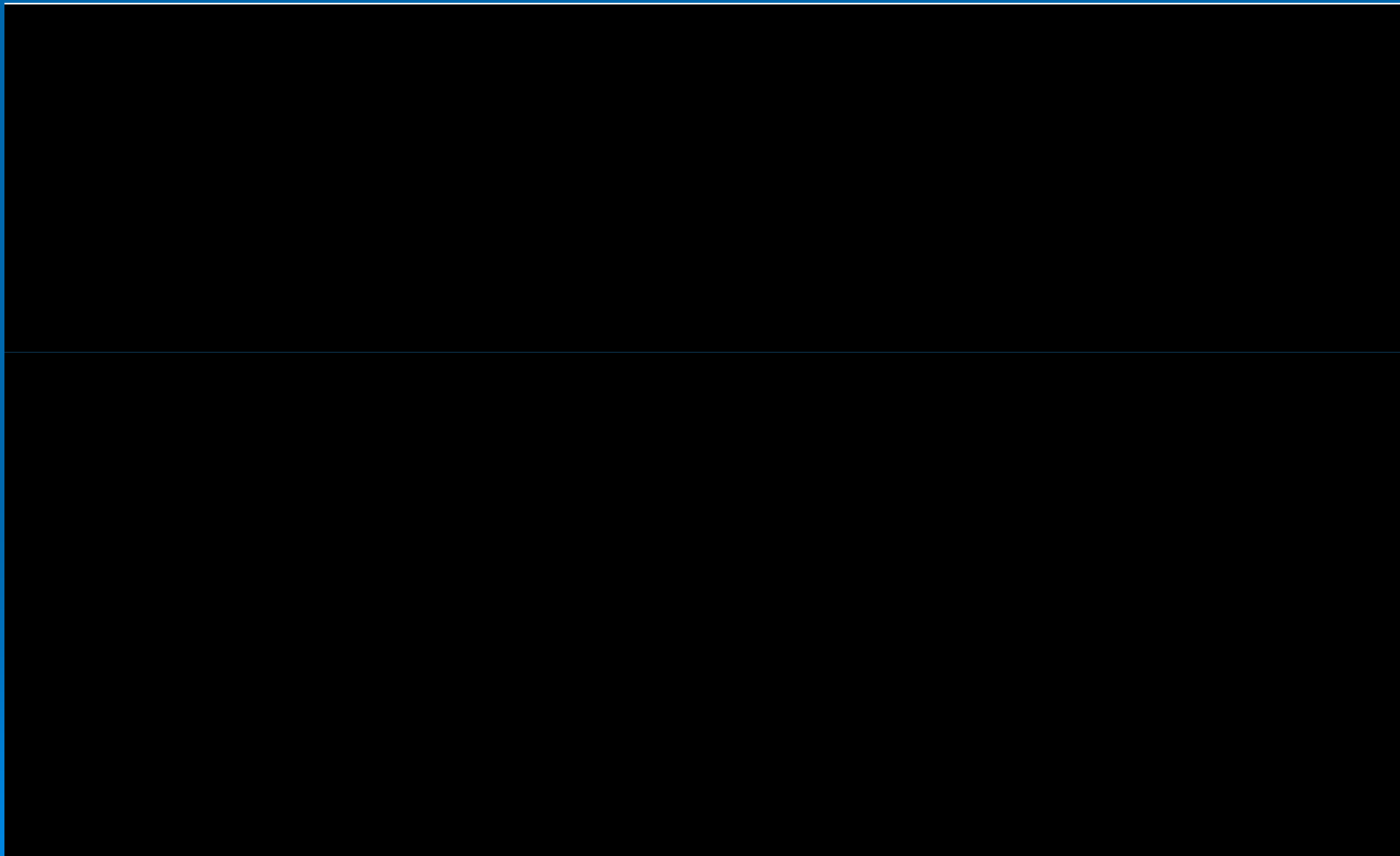
	Estimated external financing gap ratio (%) as of Nov. 2008
Albania	41%
Armenia	38%
Azerbaijan	-348%
Belarus	200%
B-H	70%
Bulgaria	74%
Croatia	49%
Czech Rep.	66%
Estonia	131%
Georgia	214%
Hungary	76%
Kazakhstan	40%
Kyrgyz	25%
Latvia	160%
Lithuania	158%
Macedonia	59%
Moldova	67%
Montenegro	133%
Poland	99%
Romania	113%
Russia	1%
Serbia	89%
Slovak Rep.	53%
Tajikistan	250%
Turkey	78%
Ukraine	37%
Uzbekistan	-53%

Sources: DEC November 2008 projection, WEO 2008 October projection
Notes: Ratios based on the following assumptions
- 25% of non roll-over
- Latest C/A projection - might be optimistic
- Lower oil prices

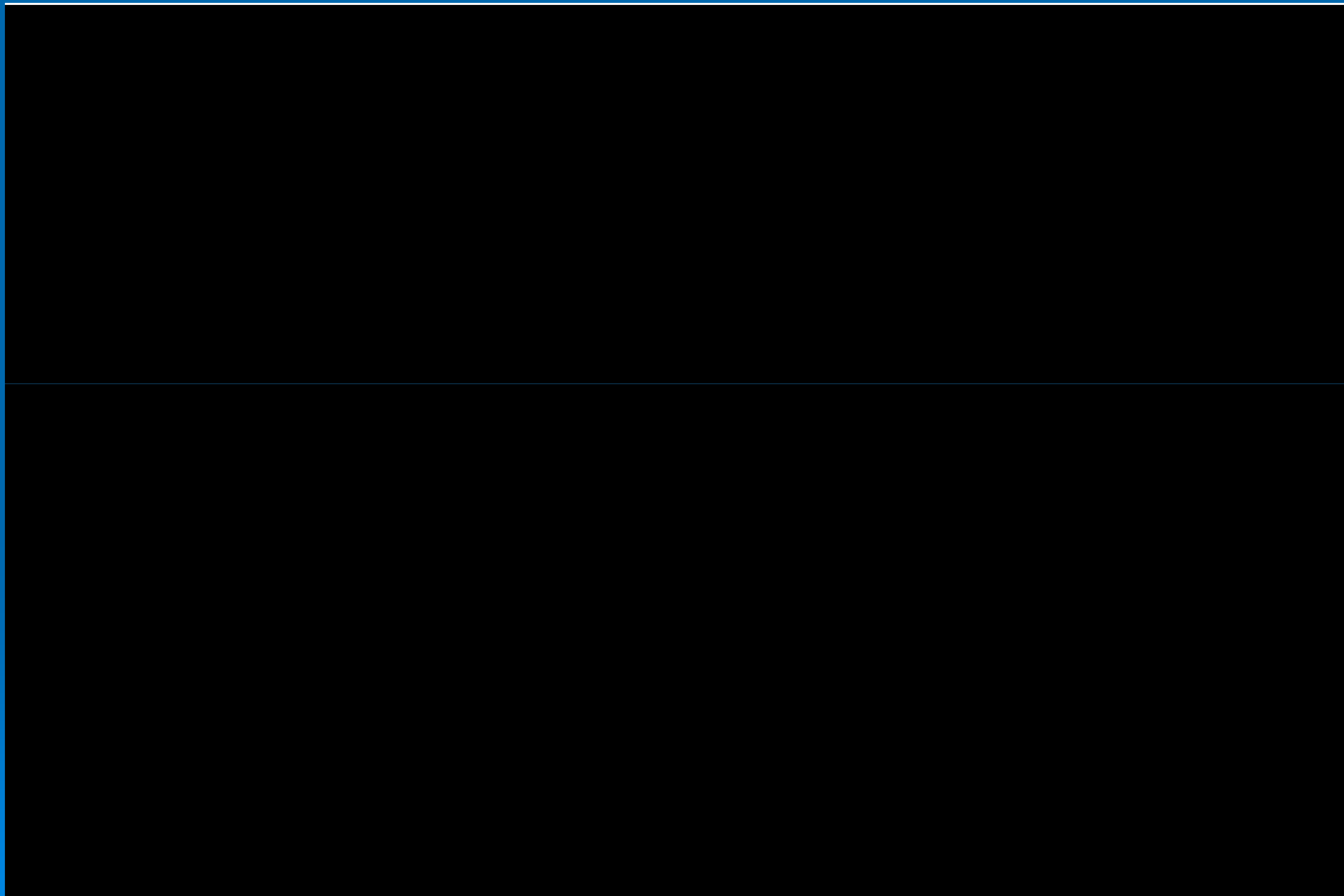
Other ECA Country Issues

- Problems with parent banks & contagion: by definition, high (L/D) for subsidiaries of EU banks means the latter depend on intra-bank lines of credit to sustain fast local credit expansion (ratios as high as 200-300 are not un-common). Over-extended parent banks can amplify local credit crunch or transmit problems to subsidiaries.
- Huge refinancing & roll-over risks: over-extended parent banks might impose a fast reduction of (L/D) ratios, leading to severe local credit crunch. Locally owned banks might not be able to roll-over external funding and/or face very high costs of doing so.
- Home-Host supervision issues: given the large market share of EU banks in local markets, local supervisors have a lot at stake and should closely exchange information and coordinate on site inspections with home supervisors.

Eastern European banking systems have become dominated by foreign owners...



From A Small Number of Western European countries



Keynesian Downward Spirals and the Banks

"Credit crunch"
deepens recession.
Rising Unemployment
reduces borrowers'
ability to service loans.

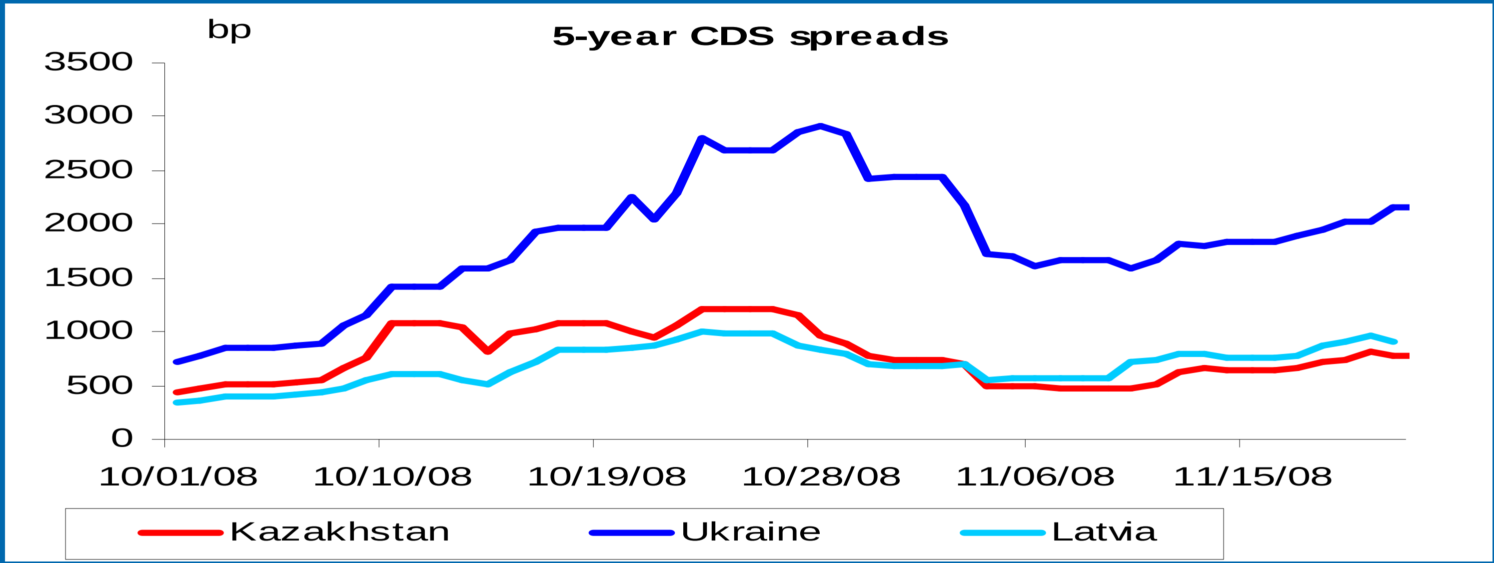
Loan portfolios deteriorate.
Falling household prices
and depreciating local currencies
lead to negative equity for
homeowners increasing defaults
=> NPLs up

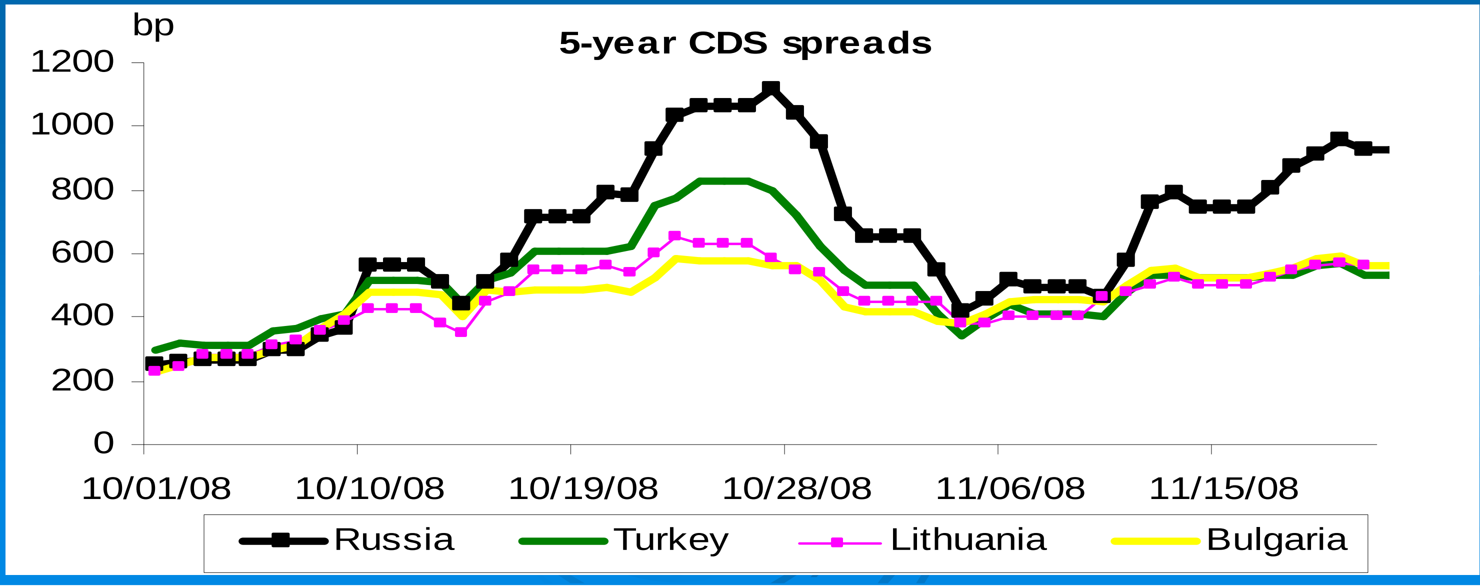
Bank's provisions
and capital depleted,
forcing banks to shrink
balance sheets

Banking Issues

- Mortgage & consumer loans: External pressures might dictate the depreciation of the domestic currency, raising FX-denominated mortgage debts in local currency, which - with rising unemployment and high household debt service over disposable income (mitigated in part by lower i %) – might raise the probability of default (PD) of these loans. Rising unemployment and over-indebted households are likely to raise the expected losses (EL) of car and credit card loans, forcing banks to raise loan-loss provisions.
- Need for incremental bank capital in under-provisioned systems: As EL are likely to increase, banks' shareholders must bring additional capital, directly or through Government recapitalization facilities. Importance of anti-cyclical provisions going forward.

CDS: Perception of Increasing Risk





Factors to Watch

Rising contingent credit risk exposures of banks from:

- Net credit exposures increase as collateral (real estate) values drop;
- Risks of a “sudden stop” could lead to severe “credit crunch” feeding into and deepening the ongoing recession, particularly in the Baltic countries, Hungary, Romania, Ukraine and to a lesser extent Turkey. Fall of FDI makes more difficult to fund CADs.

Banking Sector Refinancing-Risks

- **Possible contagion from parent banks**
  - Shrinking B/S of subsidiaries (if target (L/D) <1) => credit crunch;
  - Repatriation of capital by parent banks;
  - Driven by RoE, RoA of parent and among subsidiaries
  - Public recapitalization and subsidiaries financing constraints
- **Large deposit withdrawals**
  - Concentration of depositor base
  - Deposit guarantees arbitrage (coverage and efficiency)
  - Anxiety of depositors,
  - Unfinished consolidation of banking sector,
  - Risk of bank runs forcing nationalizations.
- **Additional capital requirements (unexpected losses)**
  - Increase in PD, LGD and assets correlations;
  - Unexpected decrease in earnings (IR margin squeezed)

Households and Corporate Risk Exposures

- Households in ECA bear large FX exposures mainly from mortgage loans
- “Bursting” real estate “bubbles” could force LTV ratios of mortgage loans above one and result in wide-spread foreclosures.
- Increasingly ECA households bear IR risk due to “hybrid Adjustable Rate Mortgages (ARM)”
- The loss of wealth will impede households ability to borrow, depressing consumption.

Households and corporate risk exposures

- Falling real estate prices will hurt construction sector – a substantial driver of GDP and income growth
- Global liquidity squeeze could cease foreign financing of corporate subsidiaries, including from parent companies
- Heavily dependency on falling foreign demand, likely to increase unemployment and households' risks
- The most flexible price that can restore external price competitiveness is "sticky" in many ECA countries (FX pegs) => Importance of enhancing competitiveness.
- The positive income effect of potential FX devaluation will be offset by a strong negative B/S effect due to large FX exposures of households and corporations.

Additional Banking Sector Risks

- Mounting bank failures: particularly in Ukraine, Kazakhstan, Baltics, and Russia.
- Continuous paralysis of the inter-bank, money and syndicate loan markets: increasing dependence on Central Banks' lender of last resort facilities (LOLR), even for insolvent banks (weak "solvency opinions")
- The eventual failure of an EU large parent bank could create a systemic risk in view of average foreign ownership of 75% of bank assets in Central &Eastern Europe.
- Drastic compression of interest margins as fight for domestic deposits increases and interest rates rise.
- Increasing "dollarization"/ "euroization" of bank deposits if perception of depreciation of local currency rises. Risks of capital flight.