

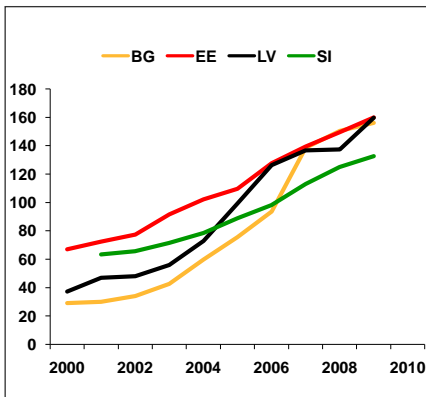
## Debt dynamics, flow of funds and deleveraging

Michael Landesmann and Roman Römisch

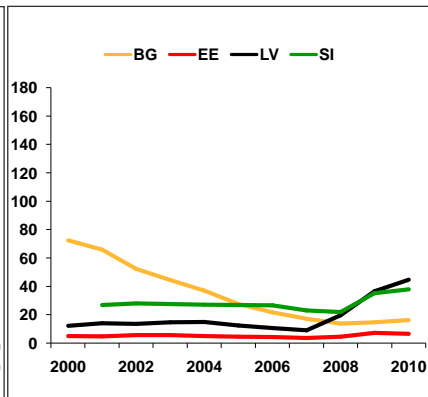
with Vladimir Gligorov and Mario Holzner

### Debt in % of GDP

Private debt



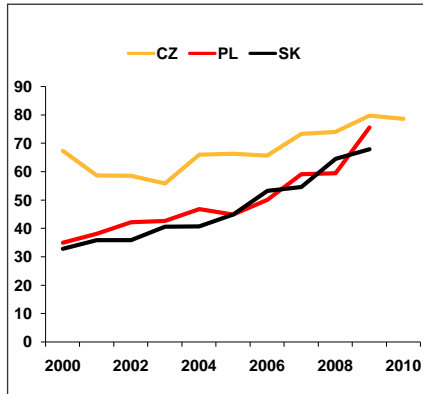
Public debt



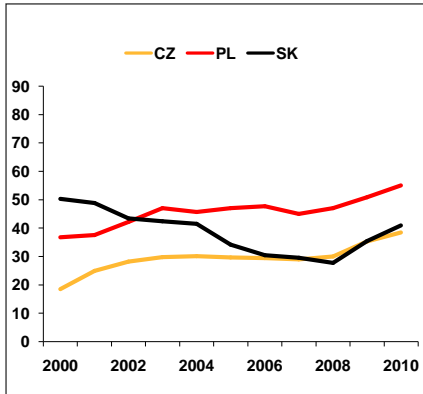
Source: Eurostat, National Banks and wiiw own calculations.

Debt in % of GDP

Private debt



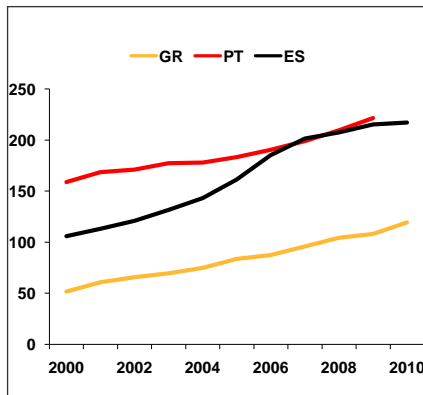
Public debt



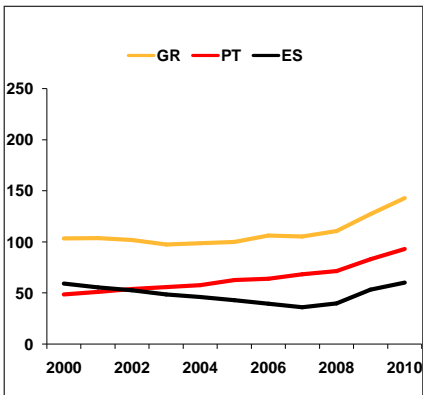
Source: Eurostat, National Banks and wiiw own calculations.

Debt in % of GDP

Private debt



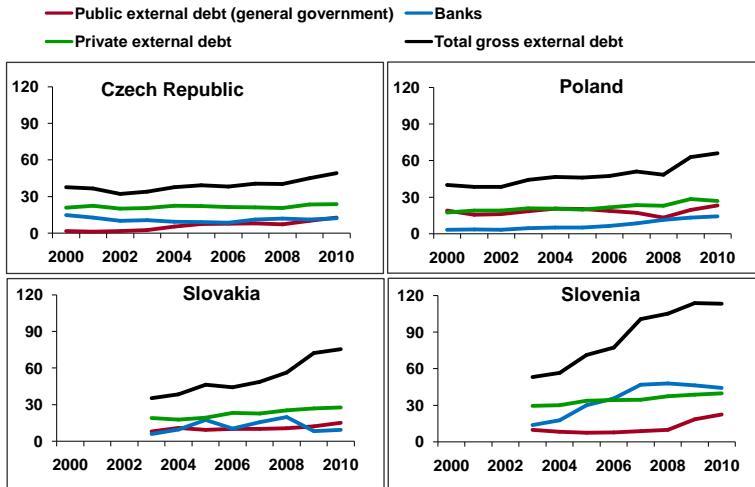
Public debt



Source: Eurostat, National Banks and wiiw own calculations.

### Gross external debt by sectors

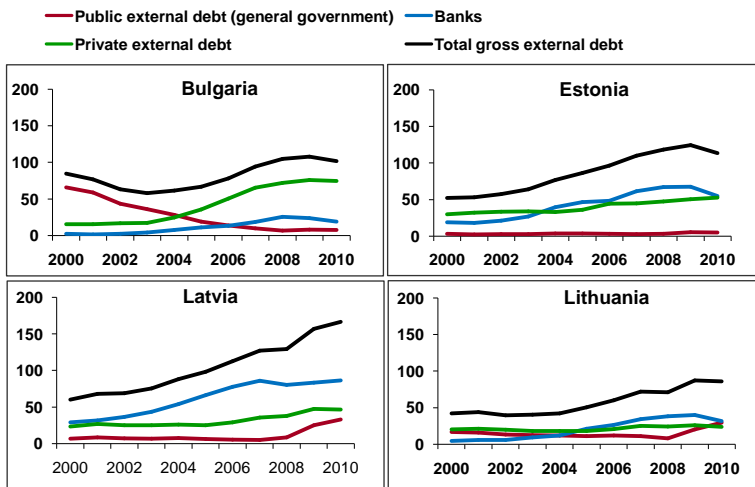
in % of GDP



Source: World DataBank – Quarterly External Debt Statistics, National Banks, own calculations. © wiiw 5

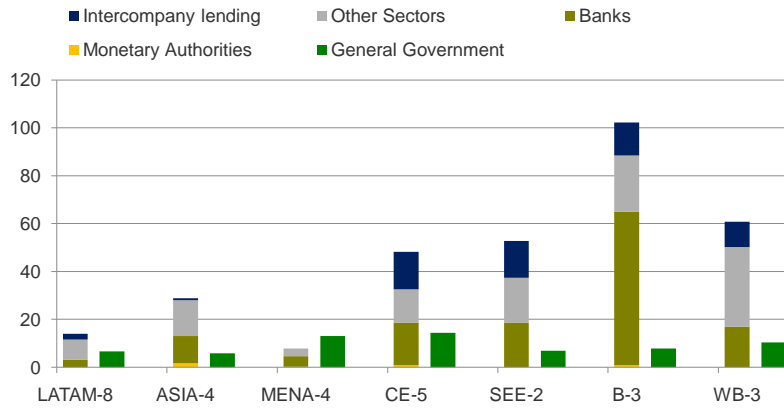
### Gross external debt by sectors

in % of GDP



Source: World DataBank – Quarterly External Debt Statistics, National Banks, own calculations. © wiiw 6

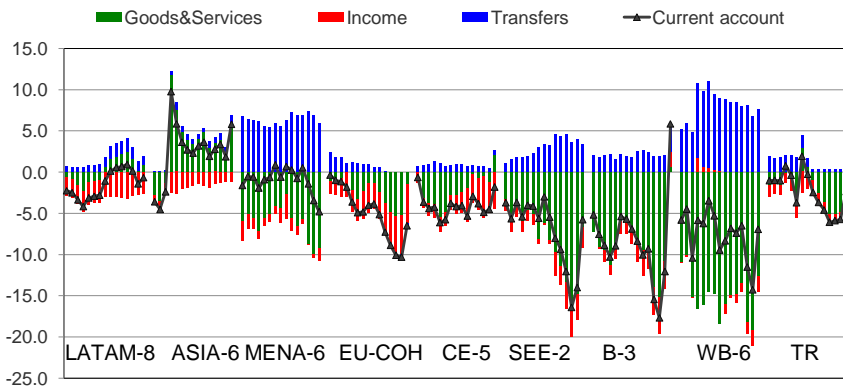
### External debt: public and private (% of GDP), 2008



Note: ASIA-4 excl. PH, TW. MENA-4 excl. LB, SY. B-3 excl. FYROM, BA, RS.

Source: World Bank, World Databank.

### Composition of the current account of the balance of payments, 1995-2009

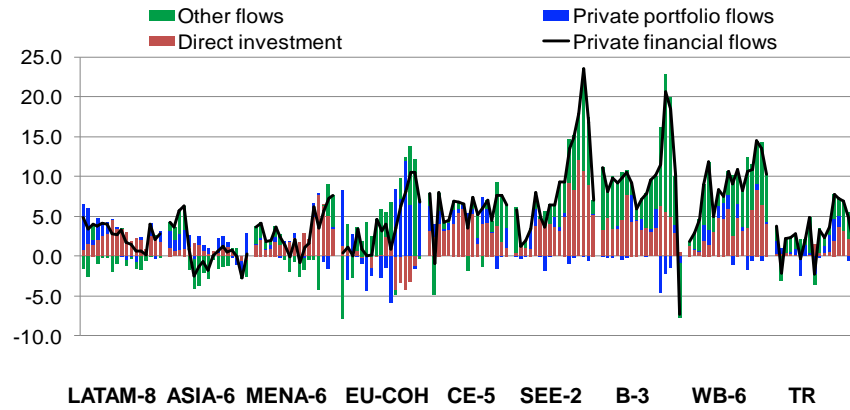


Note: ASIA-6 excl. Taiwan.

Source: IMF International Financial Statistics and IMF WEO October 2010.

### Net private financial flows

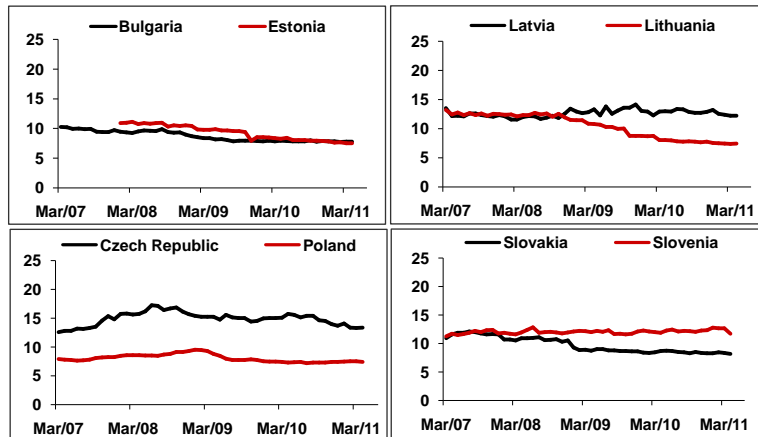
in % of GDP, 1993-2009



Source: IMF Balance of Payments Statistics. ASIA-6 excl. Taiwan.

### Leverage, ratio of banking sector assets to capital

end of period



Source: ECB (EU-27), National Bank statistics (rest of the countries), wiiw own calculations.

### **Debt dynamics before and after the financial crisis: effects on economic dynamics and growth**

- Strong build-up of private sector debt prior to the outbreak of the financial crisis
- Different groups of CESEE countries (role of exchange rate regime, trade balance developments)
- Crisis: constraints on the inflow of foreign financing ('sudden stop'), worsening of loan conditions
- Impacts on saving behaviour, deleveraging, effects on domestic demand (consumption and investment) and medium-term growth
- Significant changes in financial balances (Römisch)

### ***Comparison with other Emerging Economies (EMEs)***

- **CE-5:** Czech Republic, Hungary, Poland, Slovakia, Slovenia
- **B-3:** Estonia, Latvia, Lithuania
- **SEE-2:** Bulgaria, Romania
- **WB-6:** Albania, Bosnia and Herzegovina, Croatia, Former Yugoslav Republic of Macedonia, Montenegro, Serbia
- **B-SEE:** B-3 + SEE-2 + WB-6
- **EU-COH:** Greece, Portugal, Spain, Ireland
  
- **ASIA-6:** Indonesia, Korea, Malaysia, Philippines, Taiwan, Thailand
- **LATAM-8:** Argentina, Brazil, Chile, Columbia, Ecuador, Mexico, Peru, Uruguay
- **MENA-6:** Egypt, Jordan, Lebanon, Morocco, Syria, Tunisia

## Symptoms of the economic crisis from the point of view of a sector financial balances model

### Sector financial balances

$$(SH - IH) = (IU - SU) + (G - T) + (X - M)$$

Net surplus of private households

Net borrowing of enterprises

Deficit of the public sector

Current account balance

SH: household savings, IH: household investments, IU: investments of enterprises, SU: savings of enterprises, G: public expenditures, T: public revenues, X: exports, M: imports

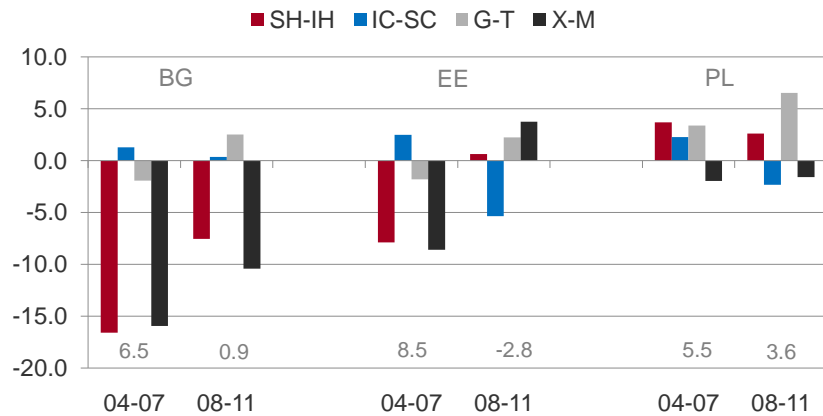
- Countries: Bulgaria, Estonia, Latvia, Lithuania, Romania; Czech Republic, Poland; Greece, Ireland, Portugal, Spain (GIPS)
- Period: 2004-2007; 2008-2011

## Symptoms before and after the crisis

- Before the crisis
  - (high) deficits of households and enterprises
  - public sector (about) in balance
  - high current account deficits
- After the crisis
  - surplus, or strong reduction of the deficits, of households and enterprises
  - high deficits in the public sector
  - improving current account balances

### Effects of the crisis on financial balances

in % of GDP, period averages 2004-2007 and 2008-2011



Source: DG ECFIN, AMECO Database, wiiw own calculations.

### Effects of the financial and economic crisis

