

# Convergence in the Baltics: From Boom to Bust?



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EU15:  
Population: 332.1 mn  
GDP PPP per capita: 27.600



# EUROPE

## The Baltic States

**Estonia**  
Population: 1.3 mn  
GDP PPP per capita: 17,800

**Latvia**  
Population: 2.3 mn  
GDP PPP per capita: 14,400

**Lithuania**  
Population: 3.4 mn  
GDP PPP per capita: 14,900

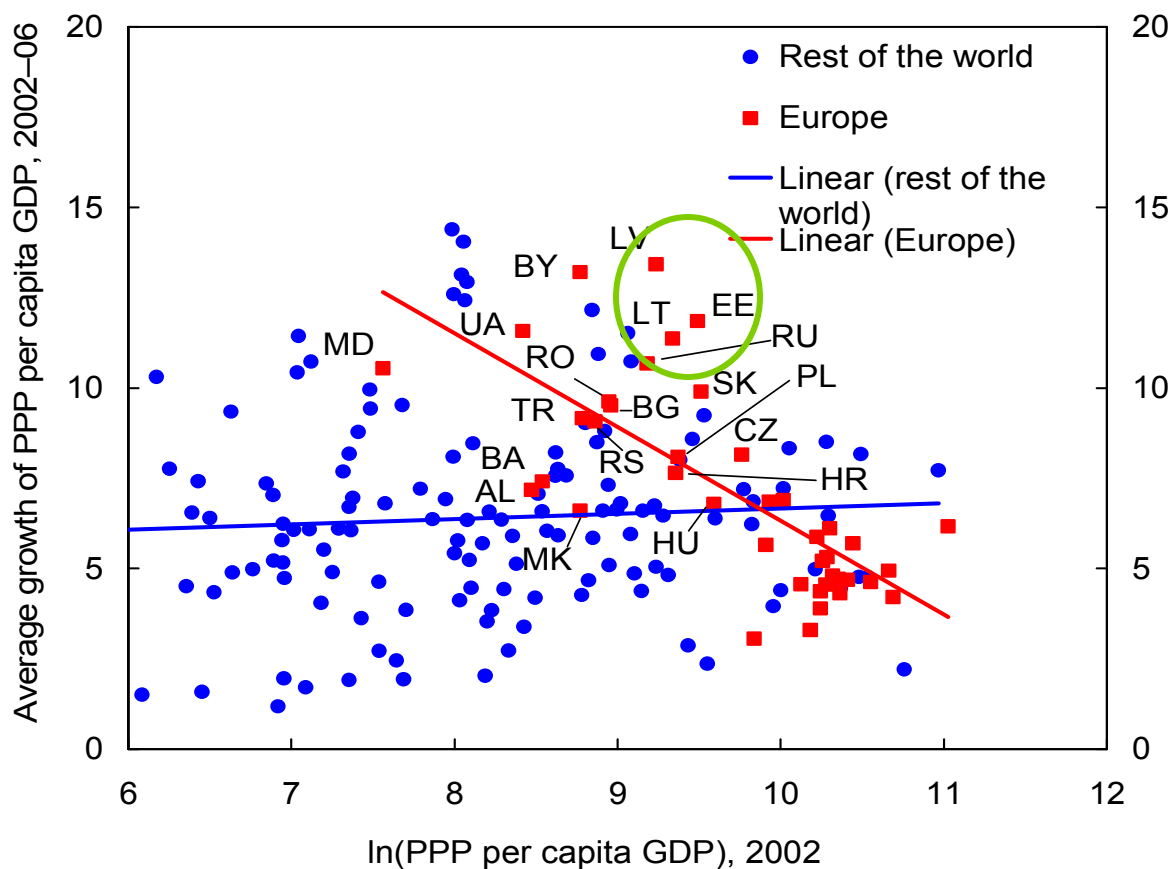


# Outline

- What drove the Baltic boom...
- ...and why is it coming to an end now?
- Vulnerabilities: external imbalances and foreign exchange mismatches
- Why the Baltics are different
- How to achieve a soft landing—avoiding the Portuguese trap

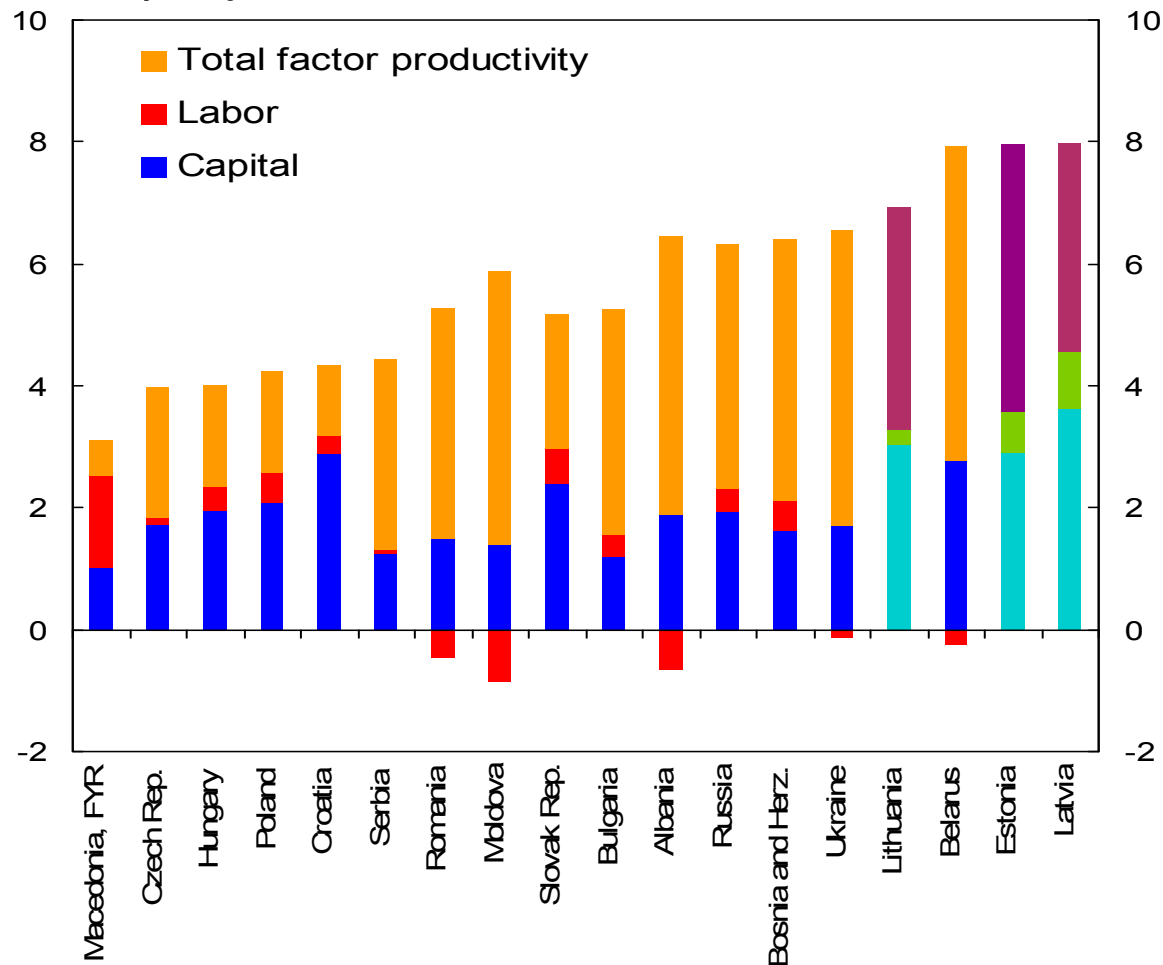
# Income convergence has been faster than in other new member states and the rest of the world

Convergence in Emerging Europe and in the Rest of the World, 2002–06



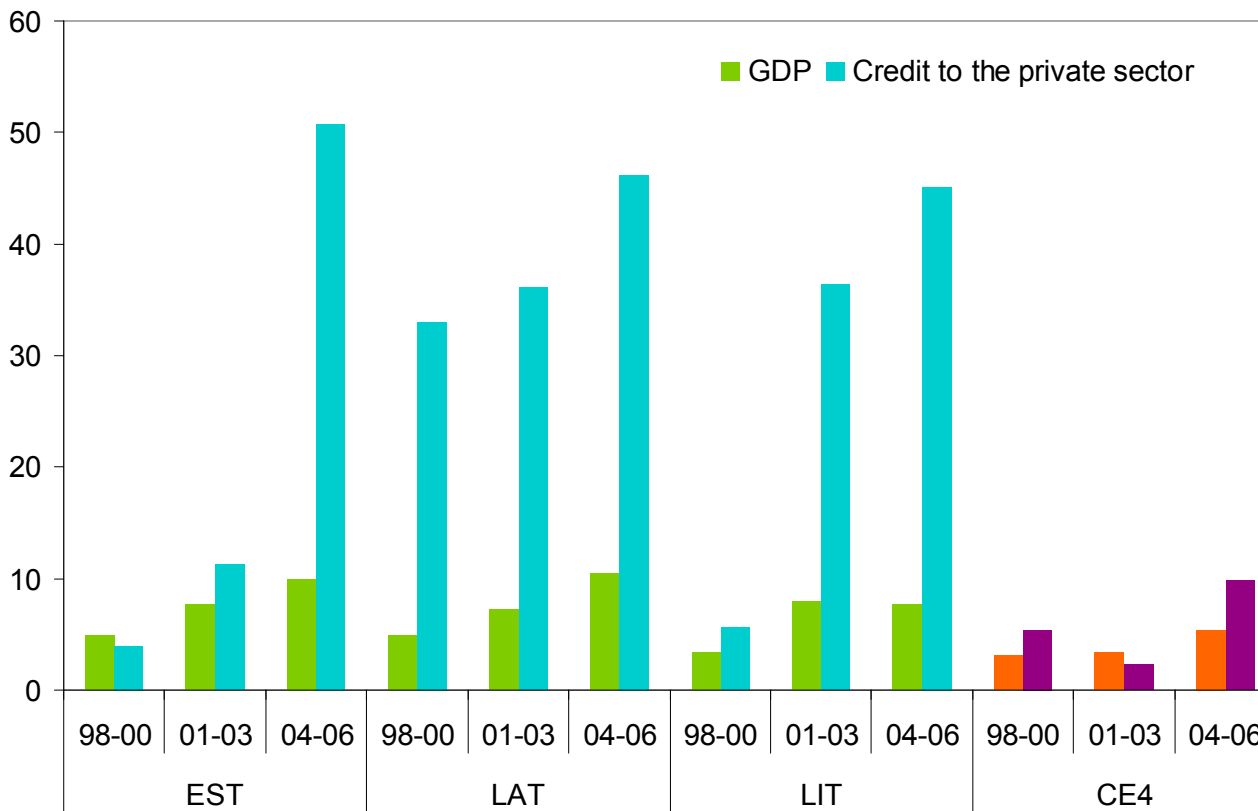
# It has been mainly driven by improvements in total labor productivity

**Emerging Europe: Growth Accounting, 2002–06**  
*Percent per year*



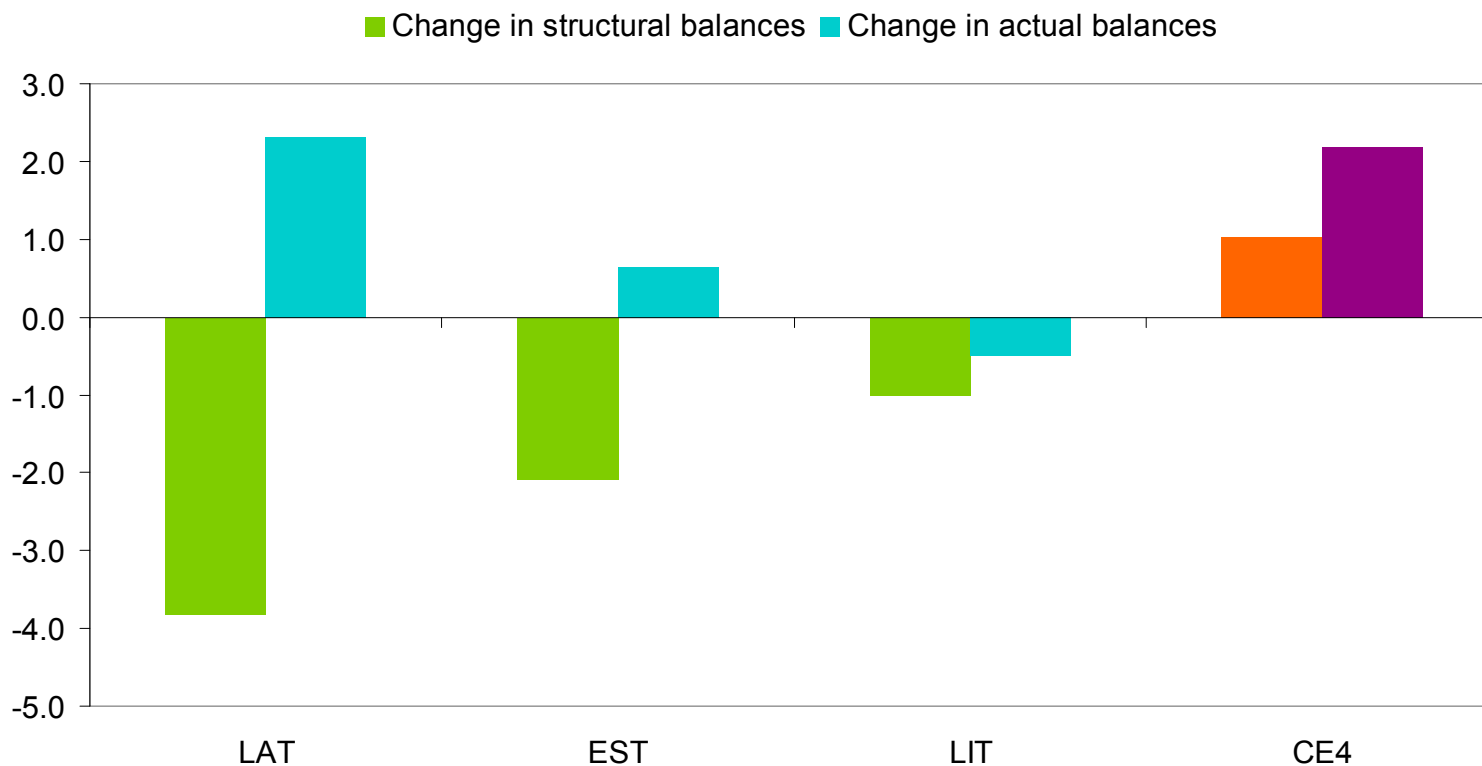
# The boom has been fueled by very high credit growth

**Growth in GDP and credit to the private sector**  
*annual average*



# Procyclical fiscal policies have added oil to the fire

**Change in Actual and Structural Fiscal Balances, 2003–07 1/**  
*Percent of GDP*

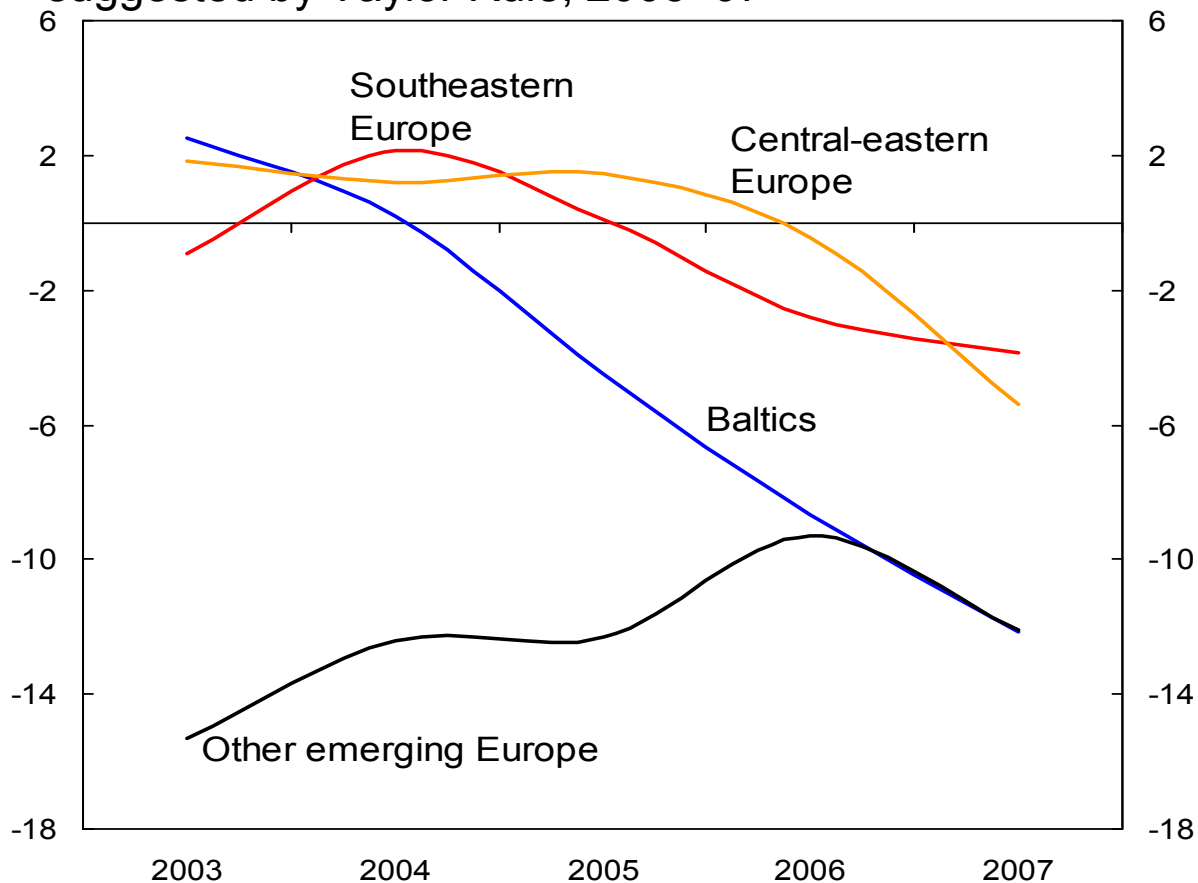


Source: IMF, World Economic Outlook; and IMF staff calculations.

1/ The structural balances do not take into account spending related to pension reform and spending related to EU transfers.

# And so have loose monetary policies

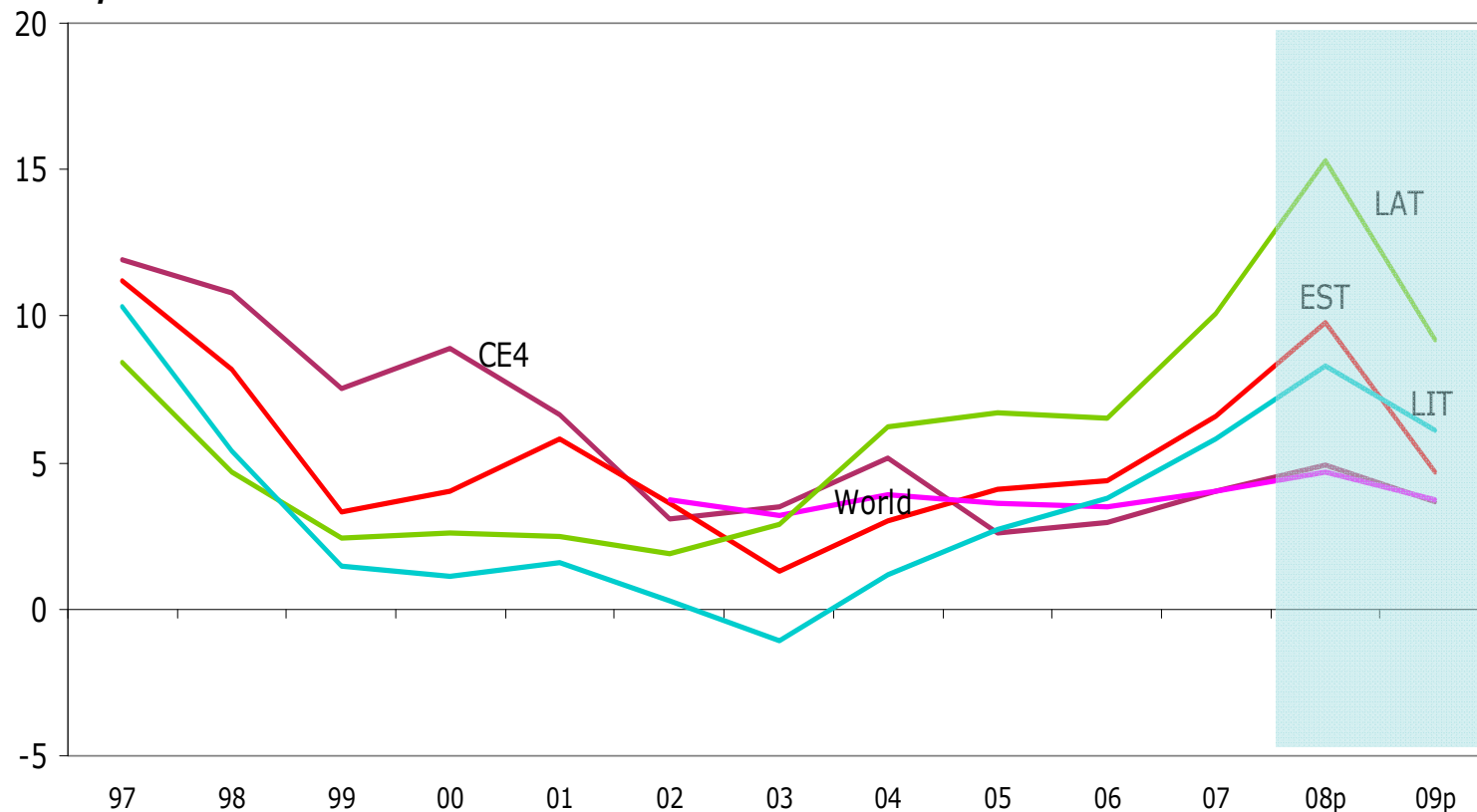
Emerging Europe: Lending Interest Rate minus “ideal” suggested by Taylor Rule, 2003–07





# The overheating has contributed to consumer price inflation...

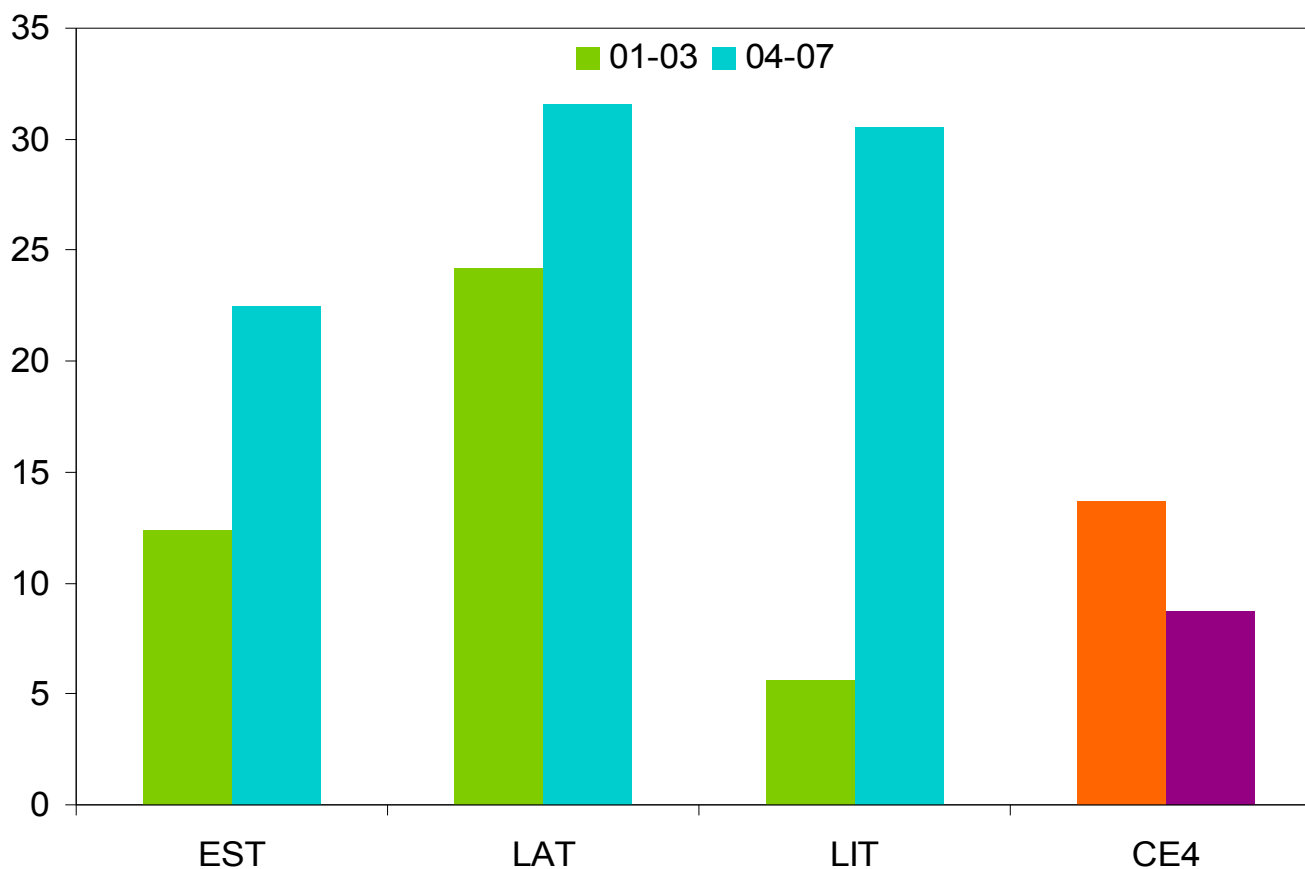
**Annual average CPI**  
*percent*



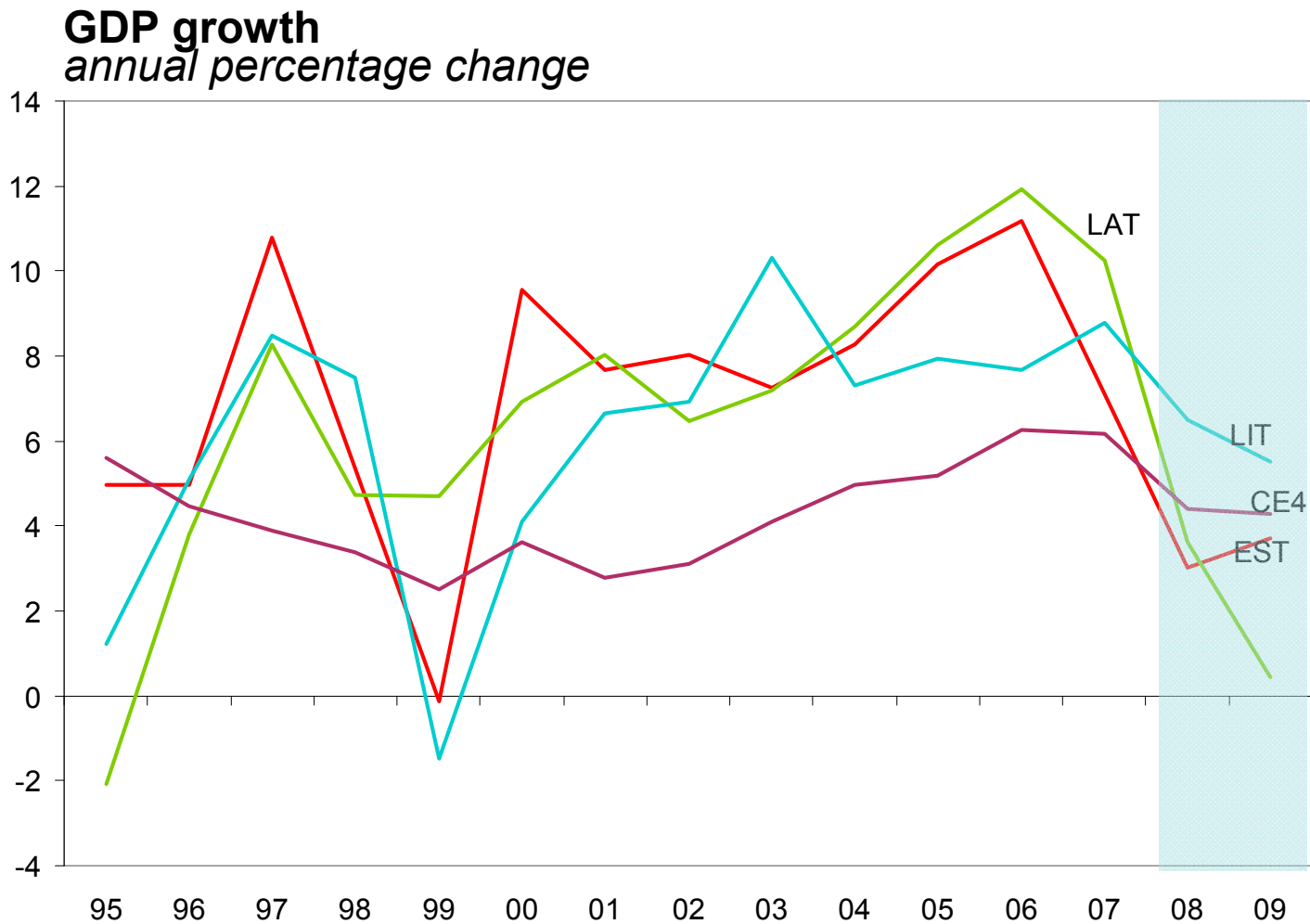
# ...and soaring real estate prices

## Residential property prices

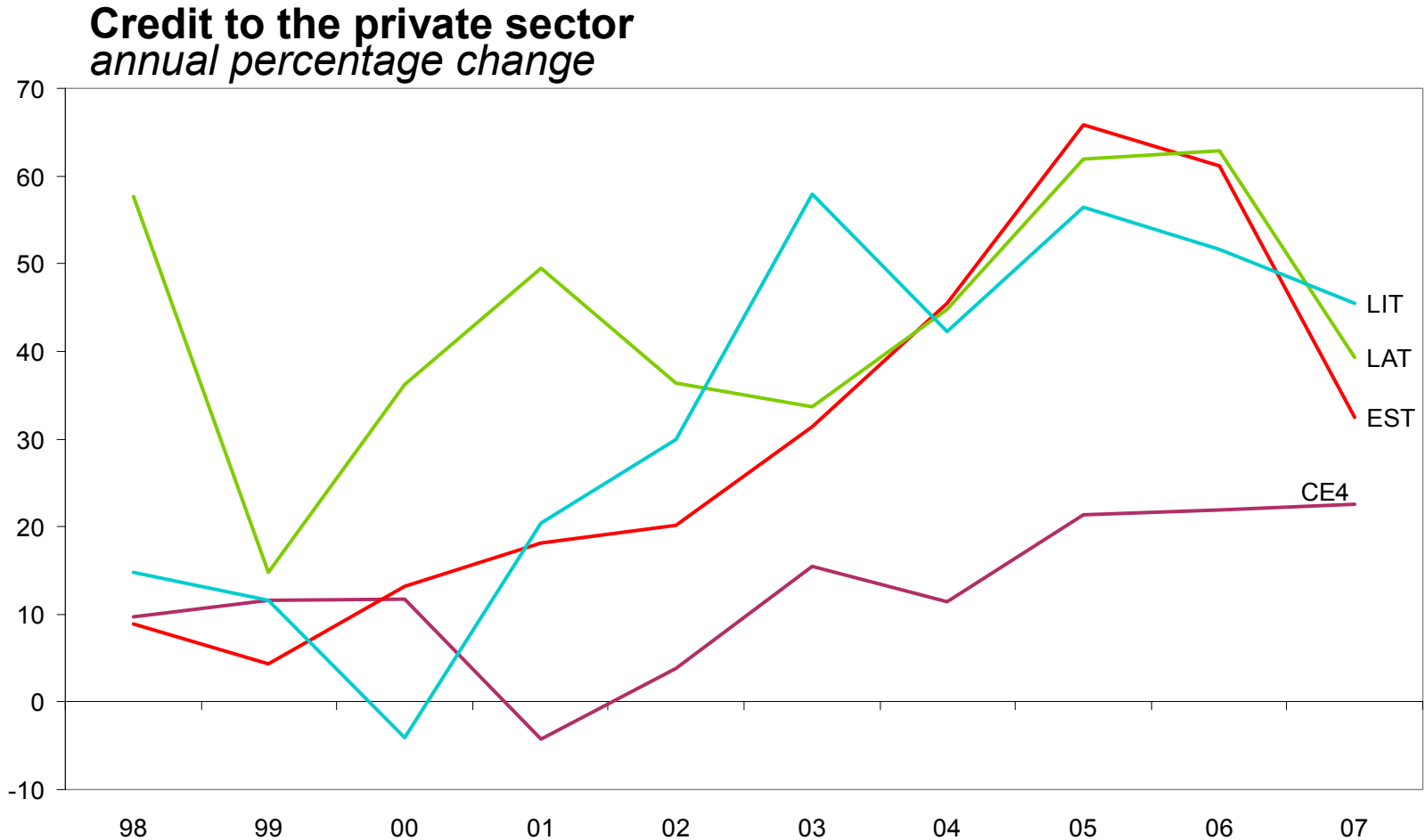
*YoY change in local currency – real terms, period averages*



# Since mid-2007 growth has been cooling fast ...



# ... mainly driven by a slow-down of credit growth

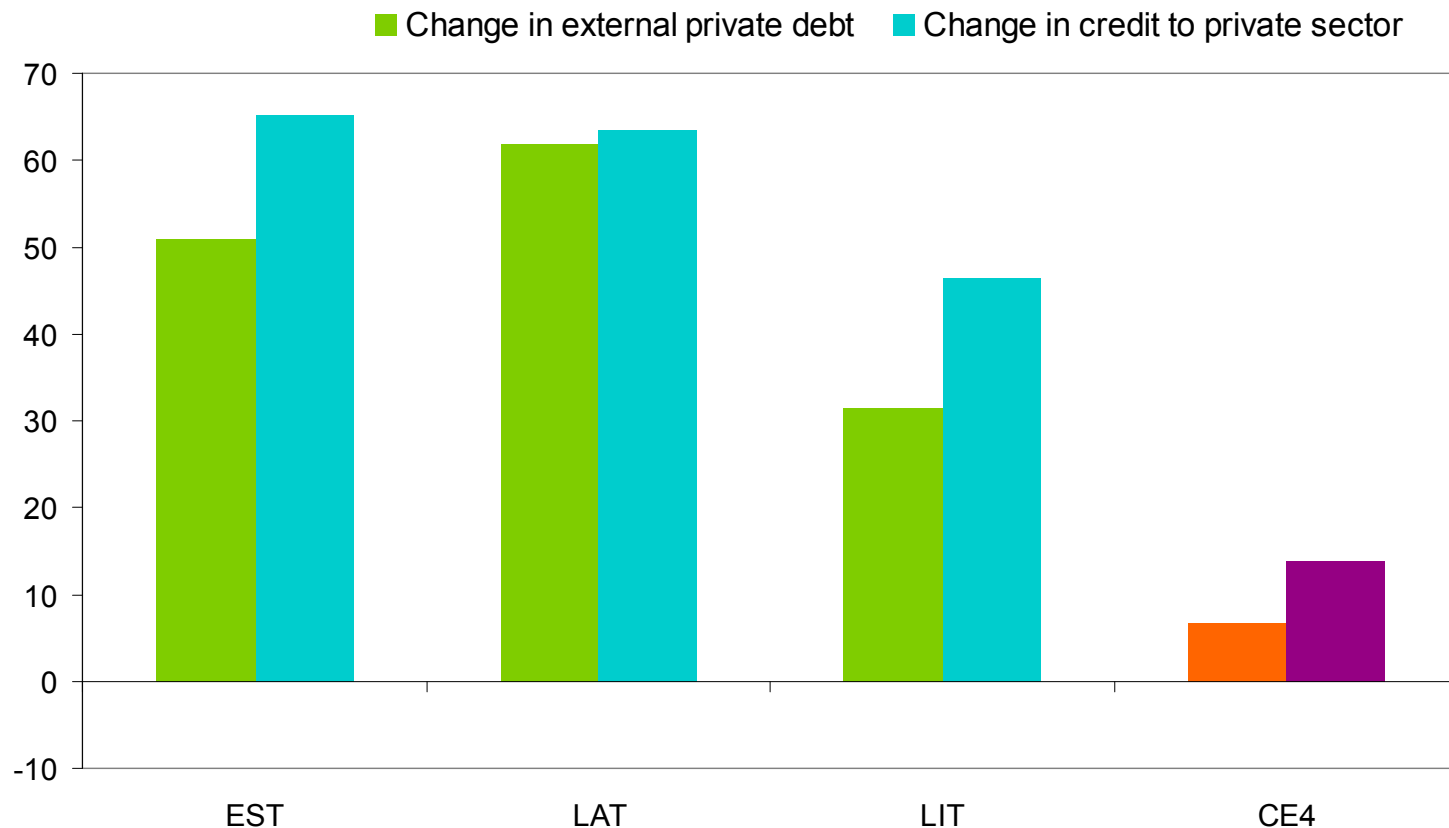


# Two key vulnerabilities associated with the economic boom:

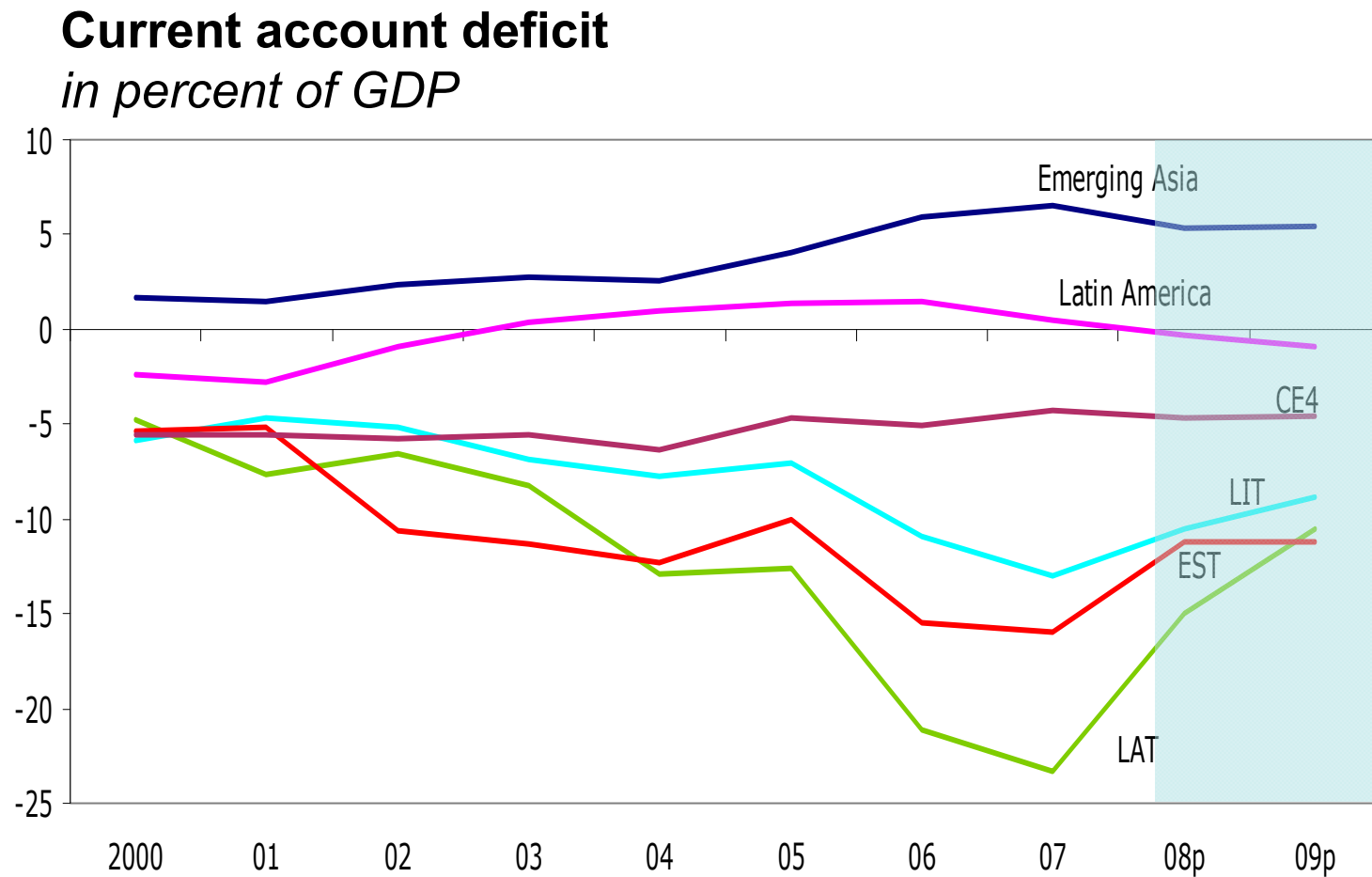
- Large external imbalances (double-digit current account deficits, highly negative international investment position)
- Large currency mismatches (especially in the balance sheets of households and corporates)

# The credit boom was mainly funded by a build-up of external debt

**Change in external debt and credit to the private sector, 2002-2007**  
*in GDP percentage points*

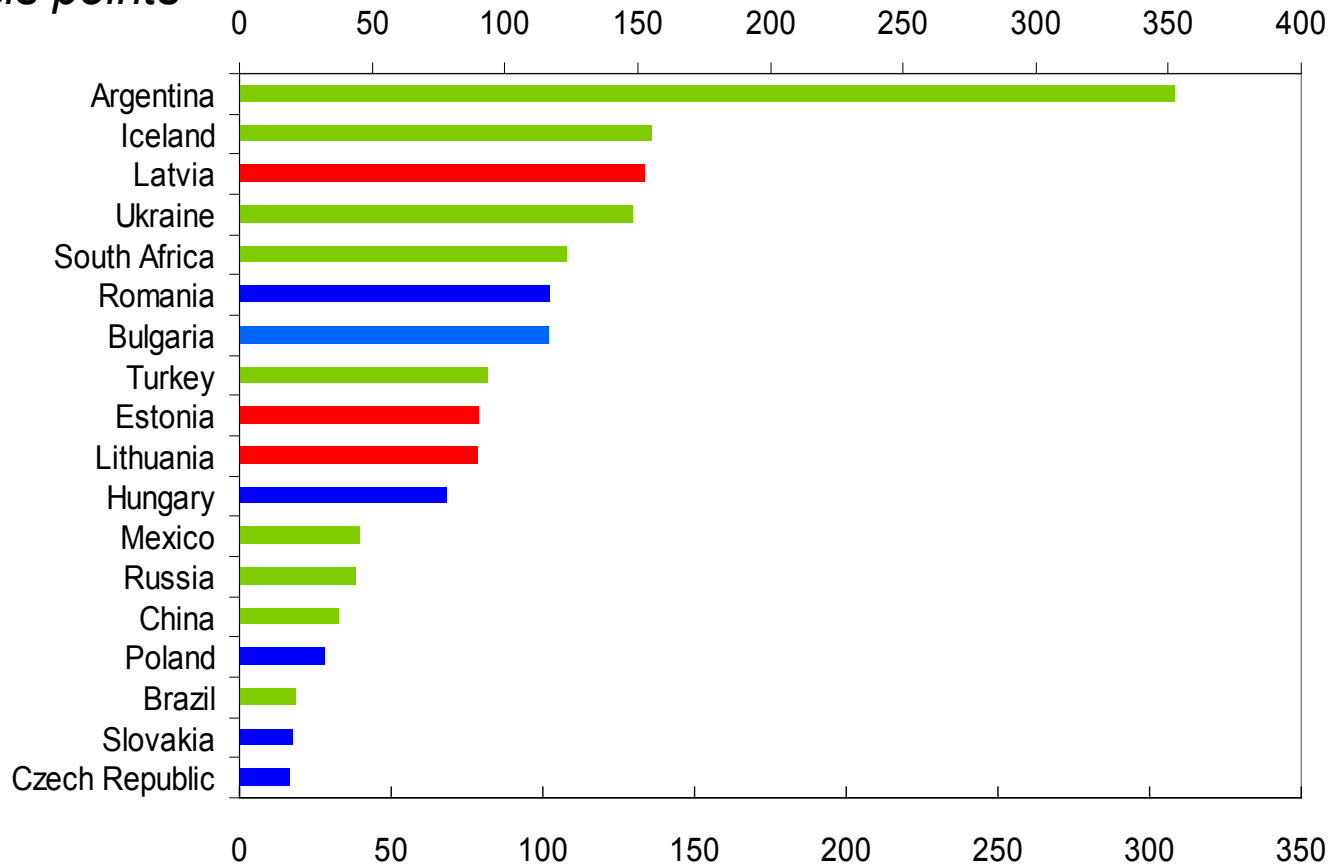


# The overheating of the economy led to exceptionally high current account deficits.



# Since the onset of the global credit crisis, markets have viewed the Baltics as more risky

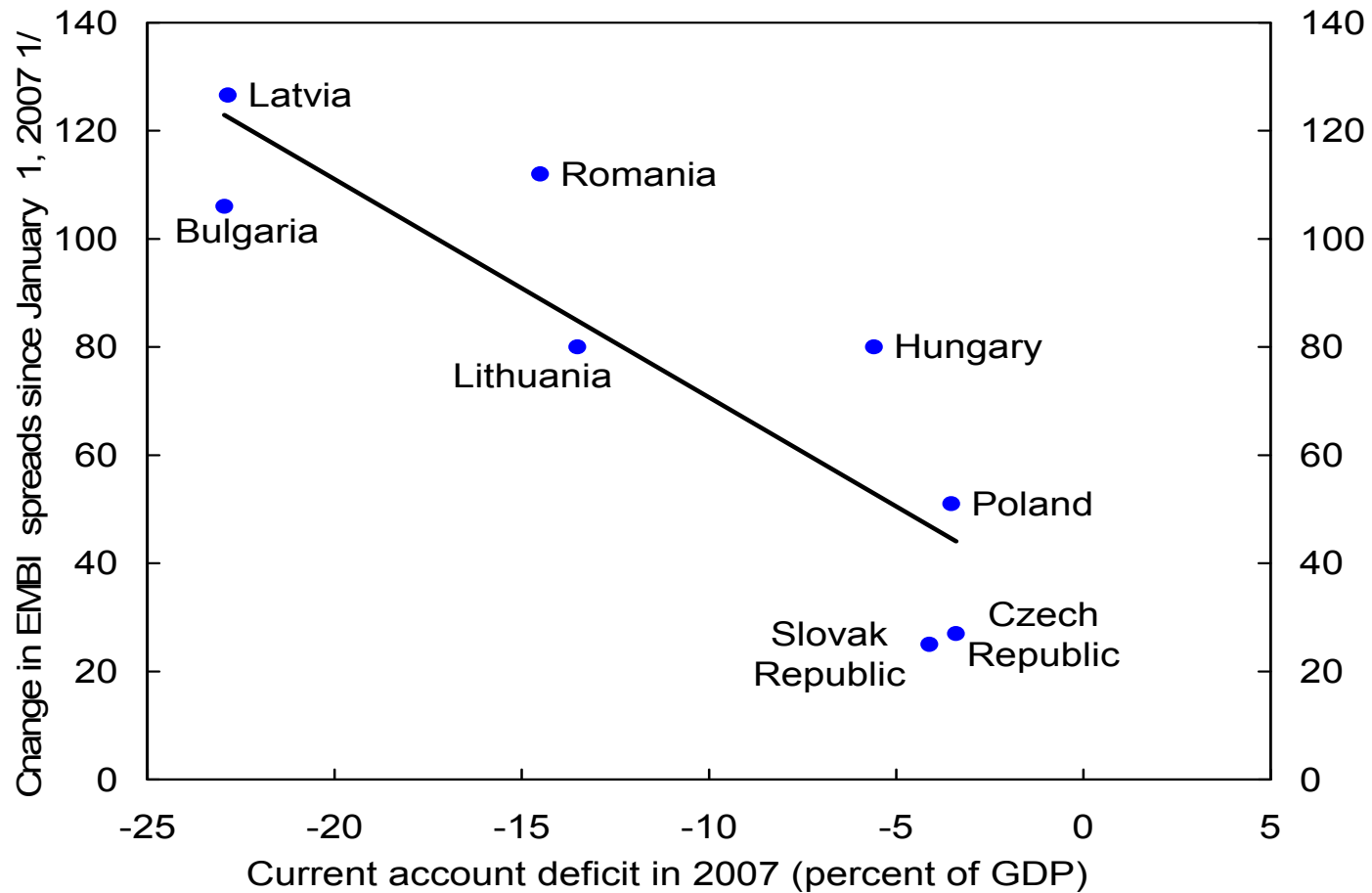
**CDS spreads July 17, 2007- May 28, 2008**  
*basis points*





# This is mainly due to their large external imbalances

## Emerging Europe: Bond Spreads and Current Account Deficits



# Determining CA sustainability in the new member states (Rahman, IMF WP 08/92)

**Macroeconomic balance approach:** estimate current account norms based on macro fundamentals (59 countries, annual data 1971-2007)

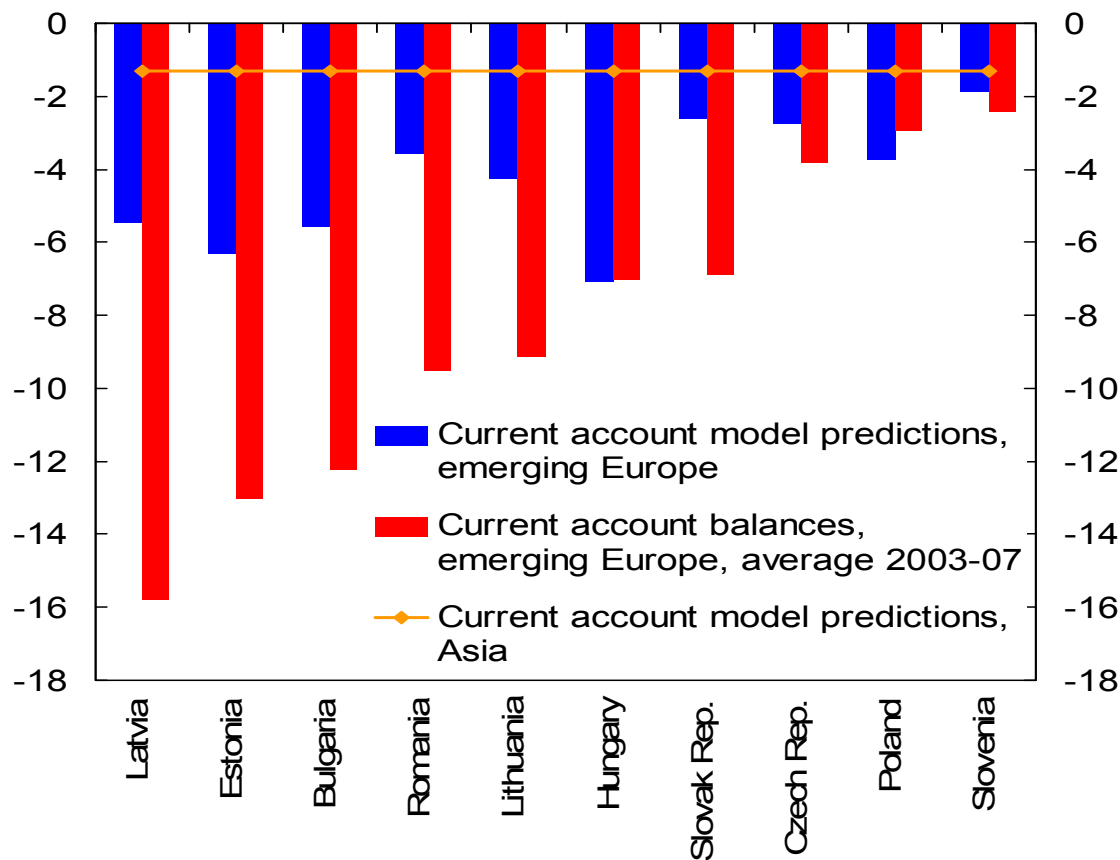
**CA norm** = f (fiscal balance, demographics, net foreign assets position, relative per capita income, etc.)

⇒ CA norm in the new member states are higher than elsewhere because:

- Large share of dependent population  
(⇒ lower national savings ⇒ higher CA)
- Lower net foreign asset position  
(greater dependence on foreign capital for growth)

# But CA deficits in the Baltics still exceed what would be consistent with macro fundamentals

**Current Account Balances and Model Predictions**  
*Percent of GDP*

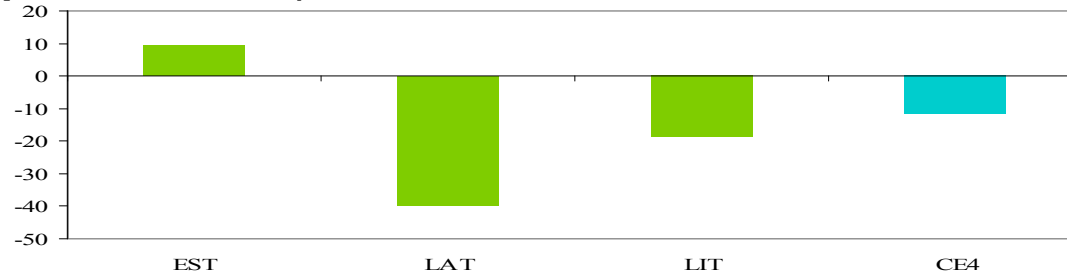


# What drives the divergence from CA norms?

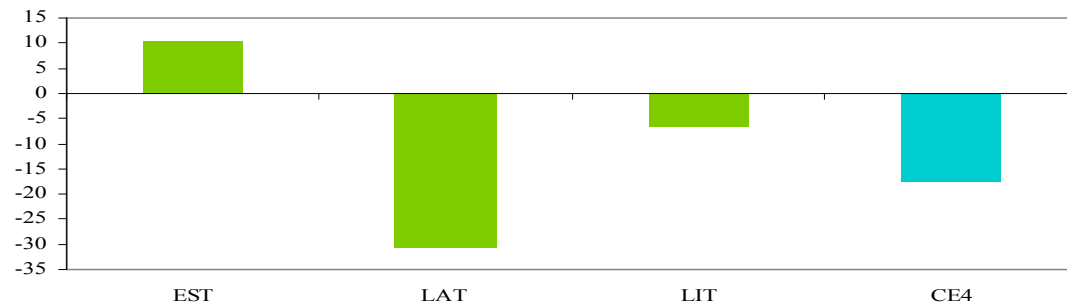
- **Cyclical or temporary factors:** output gap, capital inflows due to EU accession
- **Structural factors:** export composition, cost competitiveness in manufacturing sector
- **Policy-related factors:** exchange rate regime, financial sector policies

# The Baltics have built up large currency mismatches...

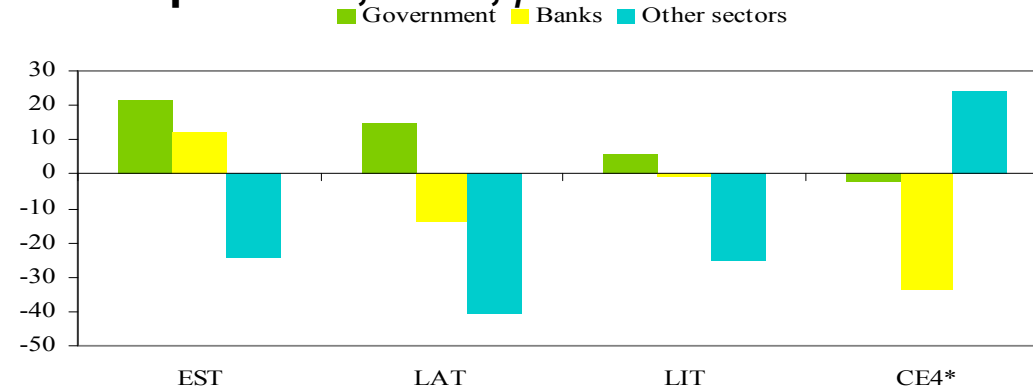
Net FX position, 2007 percent of GDP



Change in net FX position, 2002-2007, percent of GDP



Sectoral net FX position, 2007, percent of GDP

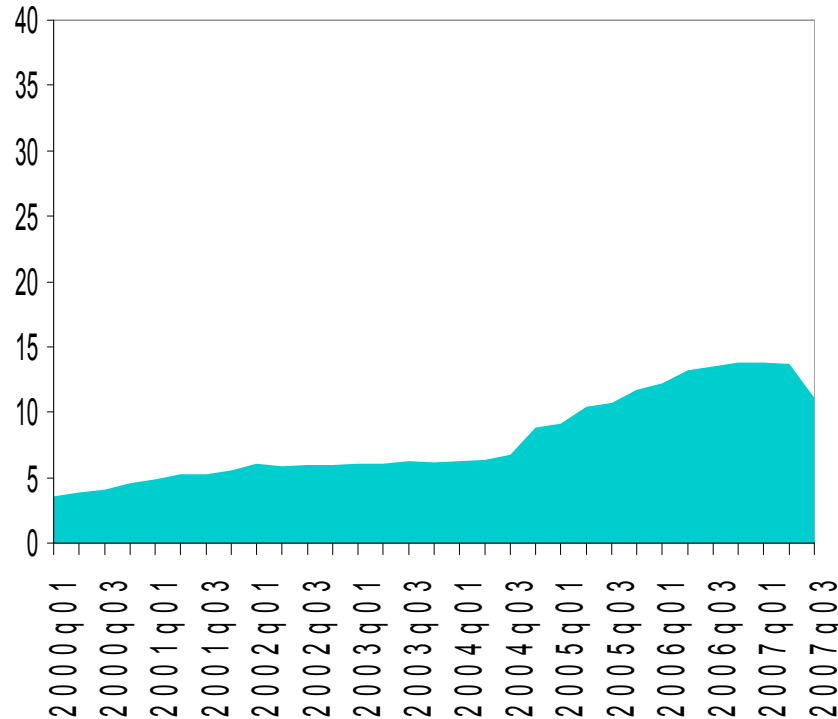


... especially in the household sector

## Latvia: Fx liabilities and assets of the household sector

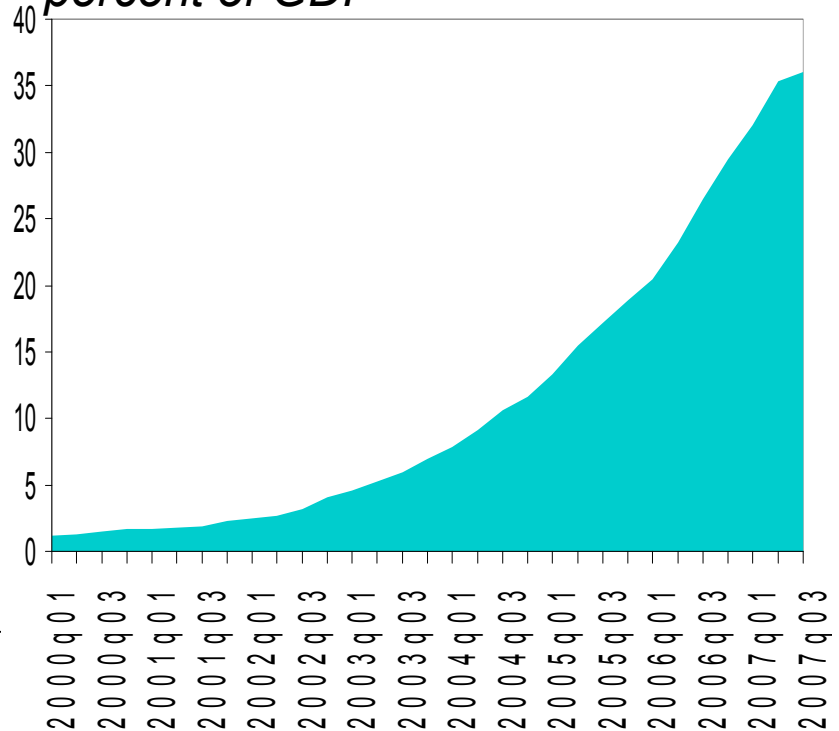
### Assets

*percent of GDP*



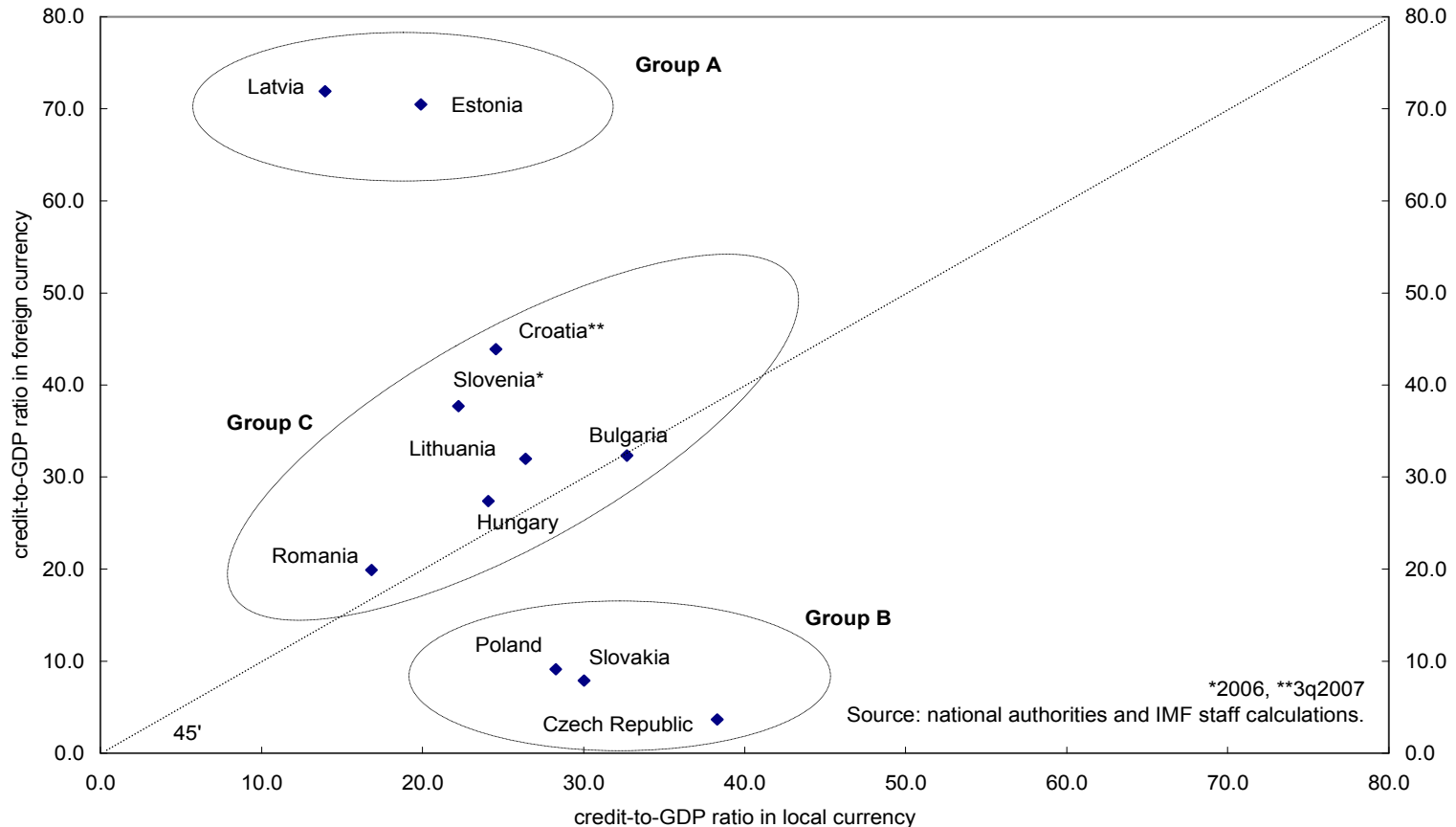
### Liabilities

*percent of GDP*



# There are substantial differences in dollarization between new member states

**Credit to GDP ratio in local currency vs foreign currency**  
*in %, year 2007*



What drives dollarization in the new member states?  
(Rosenberg and Tirpak, forthcoming – work in progress)

Hypothesis: Share of the fx loans depends on:

- interest rate differential
- loan-to-deposit ratio
- GDP level
- exchange rate regime
- EU/EMR2 membership
- openness (export/GDP, remittances)
- regulatory measures



# Index of regulatory measures:

$$Index_{i,t} = \sum policy_{i,t}$$

| Policies to discourage foreign currency borrowing ( <i>policy<sub>i,t</sub></i> )     | Score |
|---|-------|
| Monitoring FX risk  | 0.2   |
| Disclosure FX risks to customers  | 0.4   |
| Tightening eligibility criteria for FX borrowing                                      | 0.6   |
| Higher risk weights/provisioning/reserve requirements depending on banks' FX exposure | 0.8   |
| Ceilings on banks' FX exposure  | 1.0   |

# Estimation results

|                            | Domestic banks only |             |             | Including cross-border loans |             |            |
|----------------------------|---------------------|-------------|-------------|------------------------------|-------------|------------|
|                            | A                   | B           | C           | D                            | E           | F          |
| Interest rate differential | 0.00111**           | 0.00128**   | 0.00111**   | 0.00199***                   | 0.00209***  | 0.00198*** |
| st. error                  | 0.0005              | 0.0005      | 0.0005      | 0.0005                       | 0.0005      | 0.0005     |
| Loan-to-deposit ratio      | 0.13164***          | 0.16443***  | 0.13817***  | 0.06772***                   | 0.08777***  | 0.06639*** |
| st. error                  | 0.0208              | 0.0253      | 0.0178      | 0.0198                       | 0.0239      | 0.0170     |
| GDP per capita in 2000     | -0.71416***         | -0.67022*** | -1.05789*   | -0.75616***                  | -0.72001*** | -1.00075*  |
| st. error                  | 0.2582              | 0.1746      | 0.5979      | 0.2725                       | 0.1970      | 0.5353     |
| <hr/>                      |                     |             |             |                              |             |            |
| GDP (PPS, 2000)            | -0.10848***         | -0.10926*** |             | -0.07612**                   | -0.07842*** |            |
| st. error                  | 0.0300              | 0.0201      |             | 0.0316                       | 0.0227      |            |
| Exchange rate volatility   | -0.00009            | -0.00010    | -0.00010    | -0.00023                     | -0.00022    | -0.00023   |
| st. error                  | 0.0003              | 0.0003      | 0.0003      | 0.0003                       | 0.0003      | 0.0002     |
| EU membership              | 0.01054             |             |             | 0.00258                      |             |            |
| st. error                  | 0.0096              |             |             | 0.0092                       |             |            |
| ERM 2 membership           |                     | -0.01421    |             |                              | -0.01141    |            |
| st. error                  |                     | 0.0154      |             |                              | 0.0144      |            |
| Openness                   | 0.02955             | 0.02024     | 0.07630**   | 0.11697***                   | 0.10301***  | 0.14516*** |
| st. error                  | 0.0399              | 0.0370      | 0.0361      | 0.0384                       | 0.0356      | 0.0345     |
| Restrictions (lagged)      | -0.01884***         | -0.01913*** | -0.01995*** | -0.00621                     | -0.00668    | -0.00687*  |
| st. error                  | 0.0044              | 0.0049      | 0.0042      | 0.0042                       | 0.0046      | 0.0041     |
| Constant                   | 1.80251***          | 1.77807***  | 0.70773***  | 1.49995***                   | 1.50993***  | 0.74238*** |
| st. error                  | 0.3192              | 0.2186      | 0.2635      | 0.3349                       | 0.2432      | 0.2360     |
| Adj. R sq.                 | 0.65                | 0.67        | 0.47        | 0.57                         | 0.58        | 0.43       |
| Observations               | 285                 | 285         | 285         | 284                          | 284         | 284        |

Note: \*, \*\*, \*\*\* refers to significance at 10%, 5%, and 1% level respectively.

Country sample -- Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, and Slovakia.

Time sample -- 1Q 1999 - 4Q 2007

Source: Authors' calculations.

# Preliminary conclusions of fx study:

- *Dollarization* is a byproduct of convergence.
- EU membership boosts foreign exchange borrowing through multiple channels:
  - it offers better access to foreign funds in a fully liberalized environment of capital flows,
  - it provides natural hedging opportunities, through increasing trade openness,
  - it may boost private sector's confidence in exchange rate stability and imminent euro adoption.
- Regulatory measures have limited effectiveness due to opportunities to borrow directly from abroad (i.e., for corporations).

# Will the Baltics follow the Portuguese path?

- Rapid convergence after joining the EU
- Since 2001, sub-par growth and high C/A deficits
- Wage increase exceeded productivity growth and undermined competitiveness

## Or relive the Asia experience?

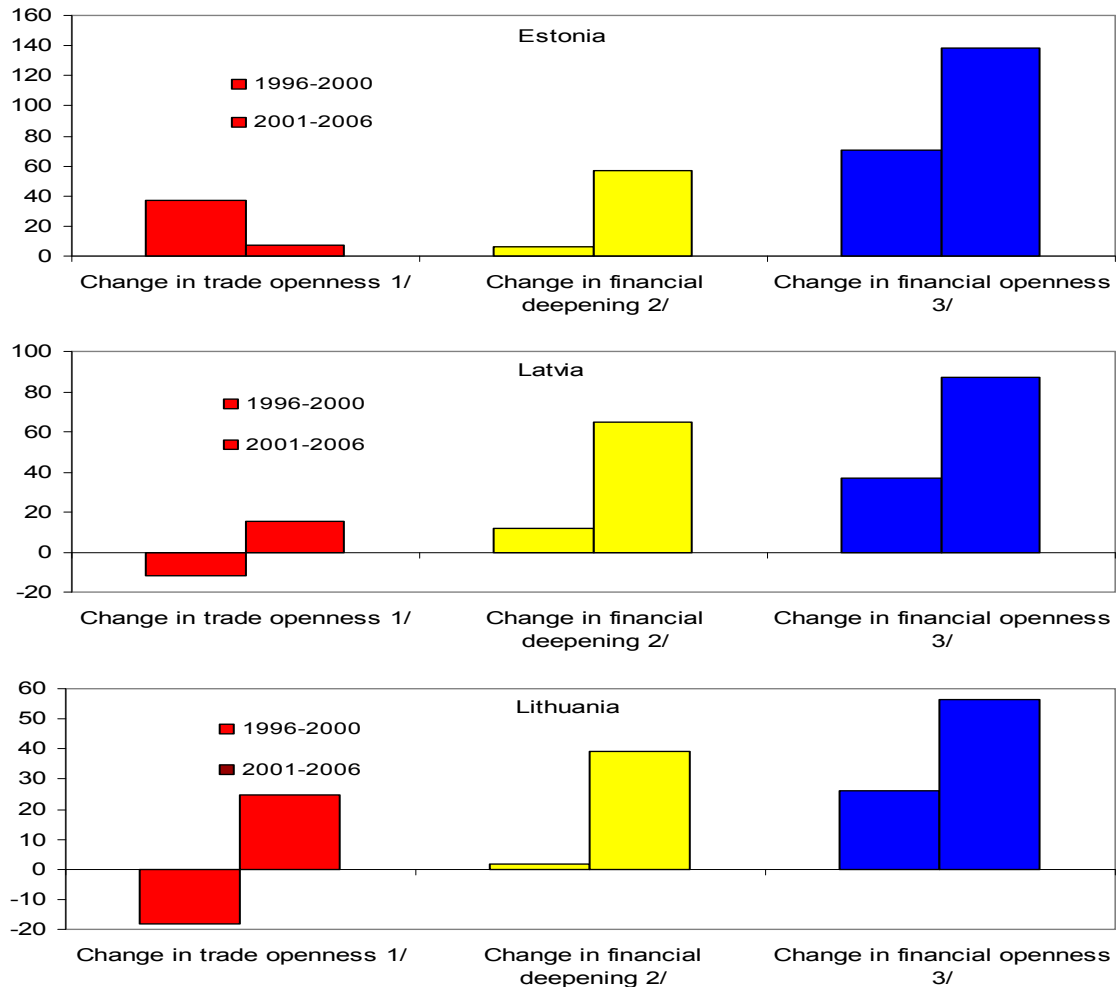
- Strong growth, driven by foreign borrowing
- In 1997, sudden stop of capital inflows, fixed currency regimes collapsed
- Painful recession aggravated by currency mismatches, but relatively fast recovery

# What makes the Baltics different?

EU membership has created circumstances that are different from the textbook case:

- Very open capital markets, role of Nordic parent banks
- Labor is highly mobile (emigration)
- Strong commitment to currency pegs, perceived to be backed by EU

# Trade and financial integration has accelerated



Sources: World Economic Outlook; International Financial Statistics; country authorities; and Fund staff calculations.

1/ Trade openness is defined as total trade (imports plus exports) in percent of GDP.

2. Financial deepening is defined as credit to private sector in percent of GDP.

3. Financial openness is defined as the sum of total external asset and total external liabilities in percent of GDP.

# Foreign bank presence offers protection against a sudden Asia-style withdrawal...

## **Asset share of foreign owned banks** *percent*

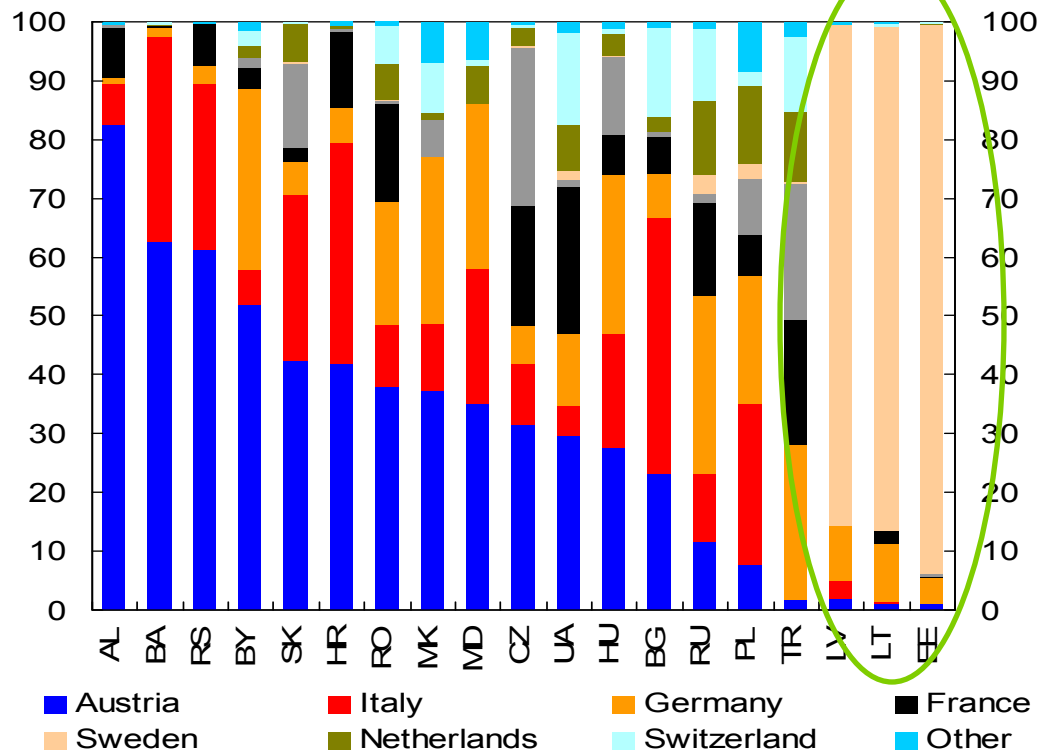
|     | 2006 |
|-----|------|
| EST | 99.1 |
| LAT | 62.9 |
| LIT | 91.8 |
| CE4 | 84.7 |

Source: EBRD.

# ... but it also exposes the Baltics to common-lender contagion risk

## Concentration of Emerging Europe Exposure to Western Europe, June 30, 2007

(Percent)



Source: Bank for International Settlements, Quarterly Review, December 2007.

Note: Country names are abbreviated according to the ISO standard codes.

1/ Emerging Europe exposure to western European banks is defined as the share of the reporting banks in each western European country in the total outstanding claims on a given emerging European country (both bank and nonbank sectors). For example, about 42 percent of Croatia's exposures to Western European reporting banks is owed to Austrian banks, 38 percent to Italian banks, 13 percent to French banks, etc. For the Baltic countries, 85 percent or more of exposures to the reporting banks is owed to Swedish banks.



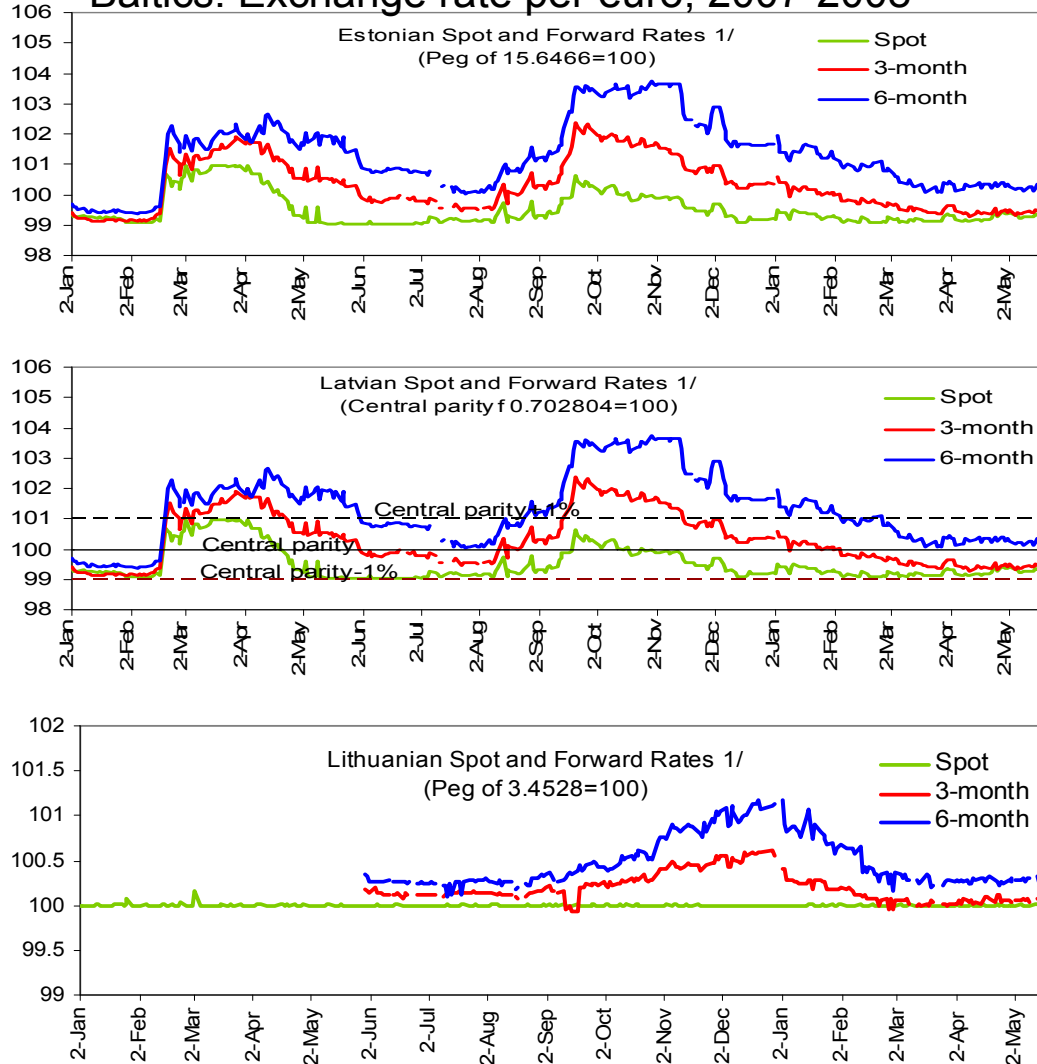
# Labor markets are flexible, but emigration has made it more difficult to contain wage growth

**Annual nominal wage growth**  
*percent*



# Fixed exchange rate have weathered the loss in confidence well

Baltics: Exchange rate per euro, 2007-2008



Source: Bloomberg.

1/ Calculated cross rate as the product of currency US\$-euro rate, using average of bid and ask prices.

# How can a soft landing be achieved?

1. Fiscal policies should not seek to offset a contraction in demand (this was Portugal's mistake).
2. Facilitate the switch of production and investment from non-tradables (retail, real estate) to tradables (manufacturing, tourism).
3. Wages should be flexible. Inward migration to the Baltics could help.
4. Strengthen financial supervision and cross-border cooperation. Ensure that banks are well prepared for the downturn.

# The global credit crunch – a blessing in disguise

- It reduces the access to cheap financing
- It serves as a reminder that no boom lasts forever

⇒ Dampen expectations with regards to

- Continued rapid wage growth
- Large-scale public investment
- Speedy euro adoption

# Thank you!

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