

8. Fixed and flexible exchange rates systems and elastic money

Mojmír Hampl, MSc., PhD.



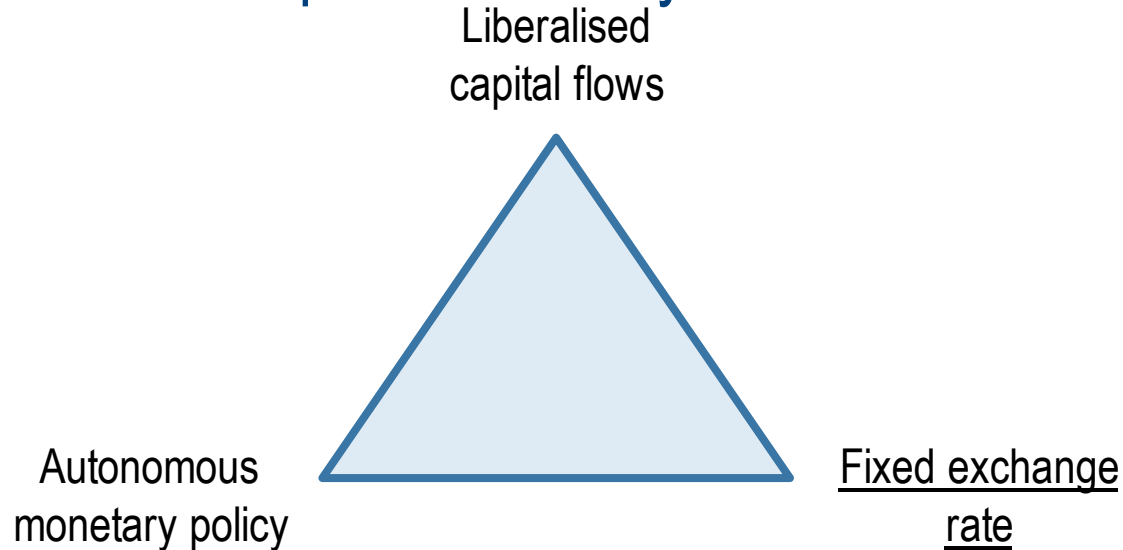
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A classical textbook monetary trilemma

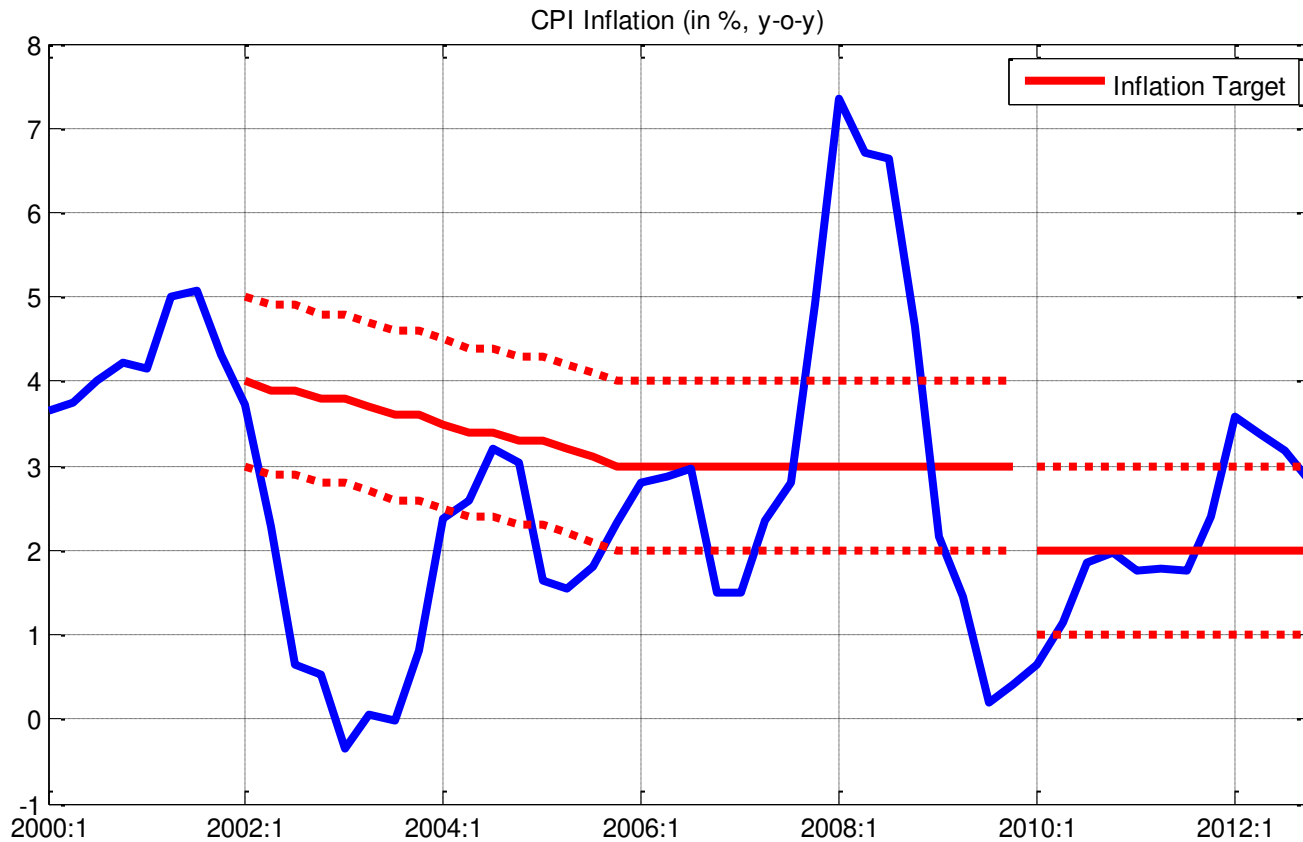
- The classical impossible trinity:



- This is of course an identity. However, a country doesn't have to succumb to the trilemma if the factors are temporary and under the CB control
- For example, temporarily fixed exchange rate (as unconventional MP) still allows for autonomous MP

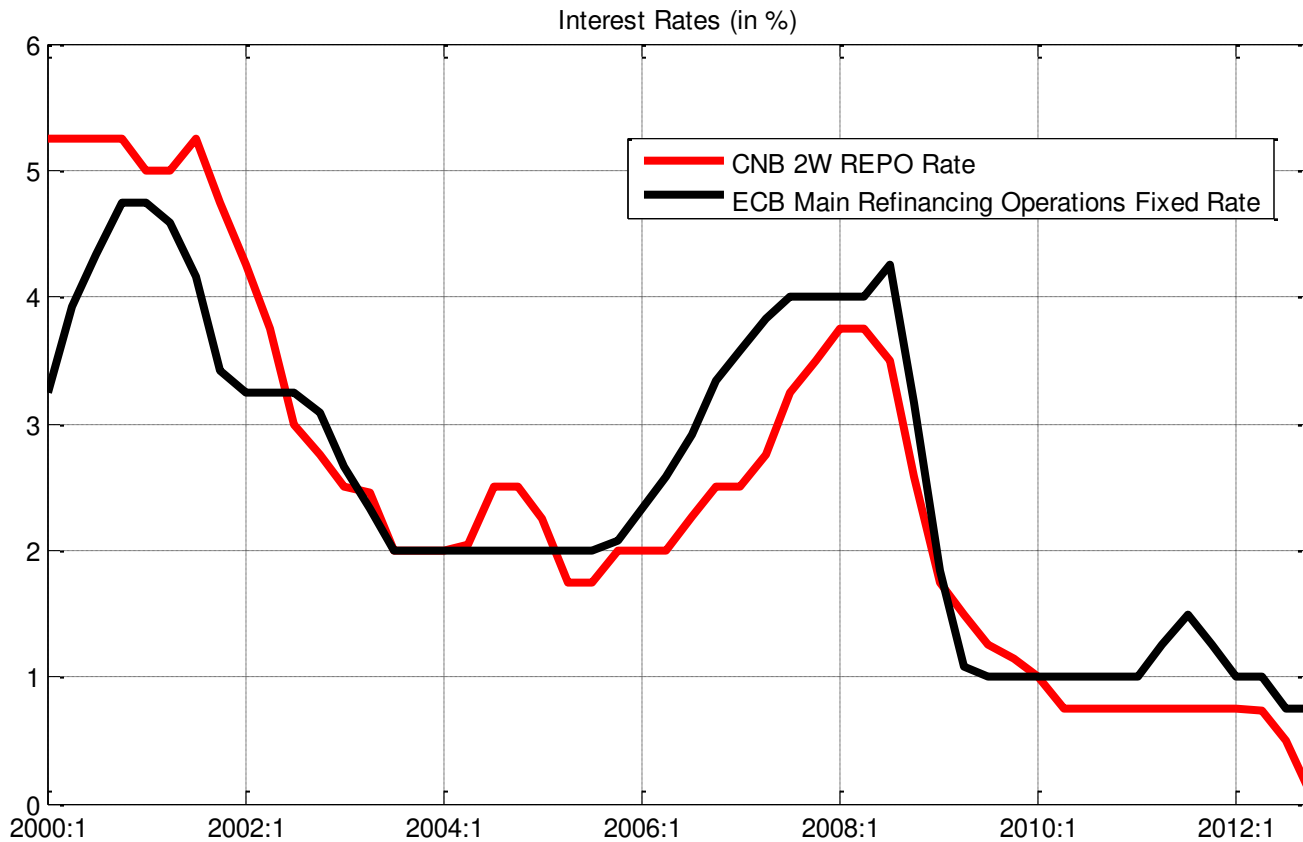
- The case for flexible exchange rates comes with the end of gold standard in 1971 (to debate this within lecture 12)
- Until then metal standards de facto fixed ER regimes. As money becomes completely elastic, what kind of principle should guide the development of ER?
- Friedman (1969) argues for flexible ER + ER as an adjustment mechanism.
- Ever since then a debate: is ER a shock absorber or a shock creator?
- ERMII in EU/EMU – an illustration of one approach to this question (see further)

- A nice story of mutual inconsistency of fixed ER and monetary autonomy (the Czech republic 1993-1997)
- After financial crisis of 1998 a shift to flexible ER + inflation target becomes a new anchor.
- Later on ER becomes a channel of convergency.



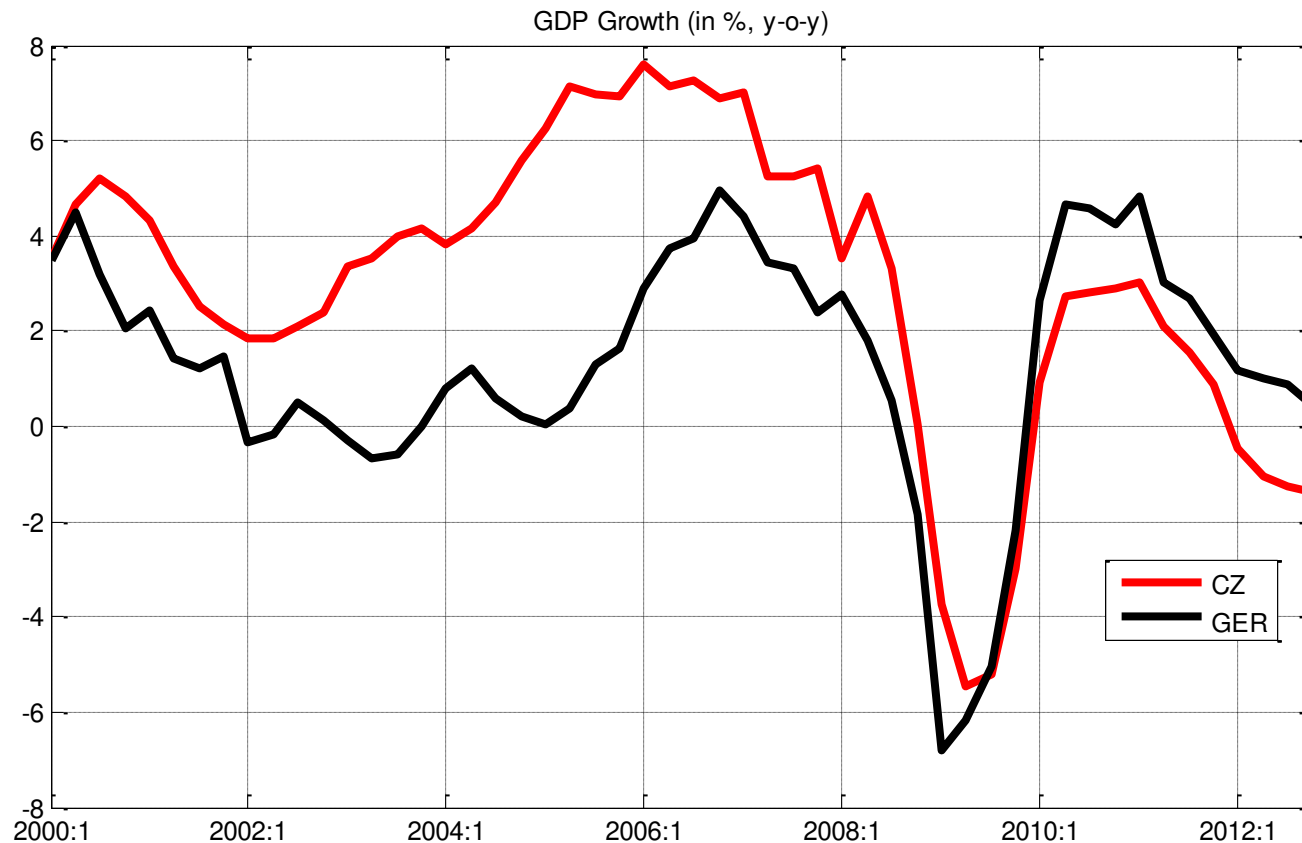
Source: Author

- CPI inflation has been on average around 2% after 2001



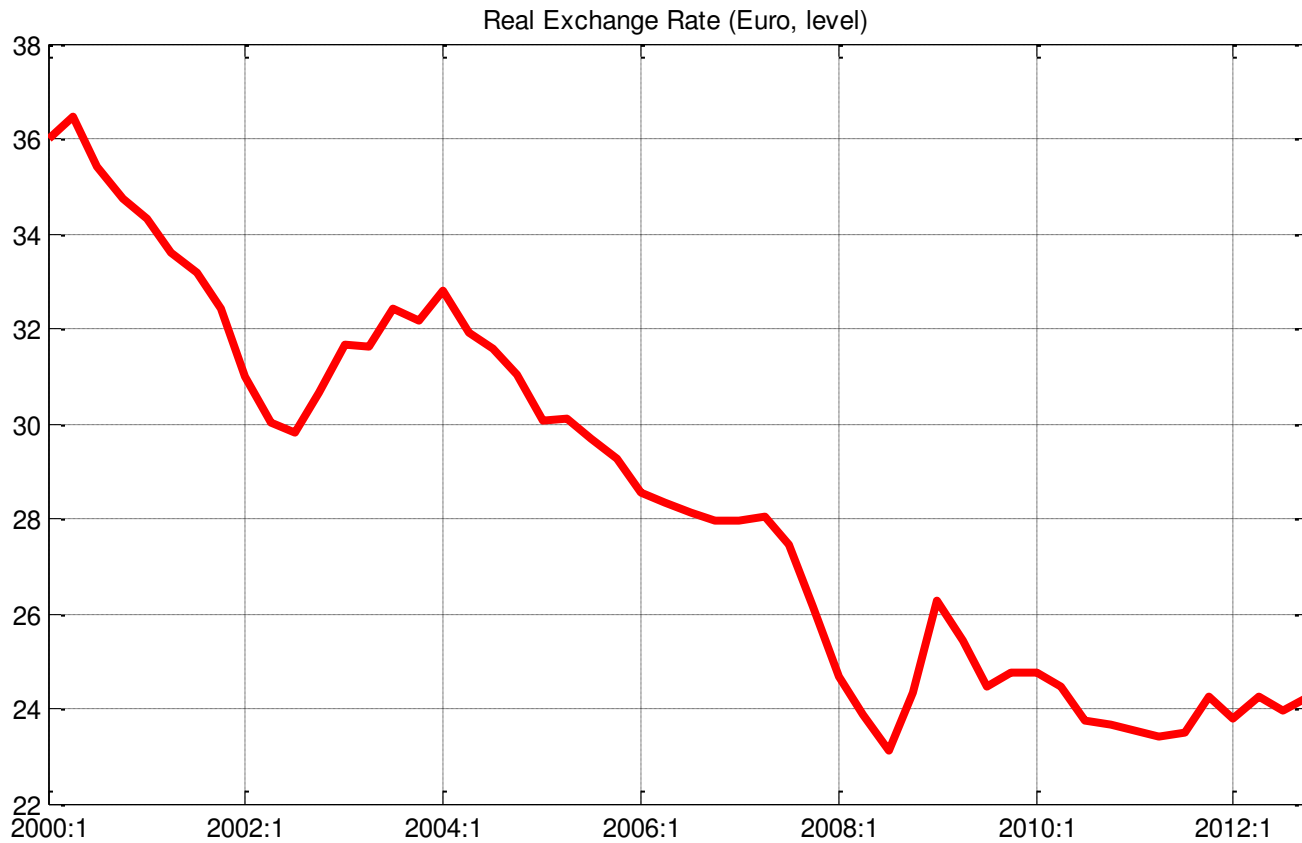
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- Policy rate has reached 'technical' zero in November 2012.



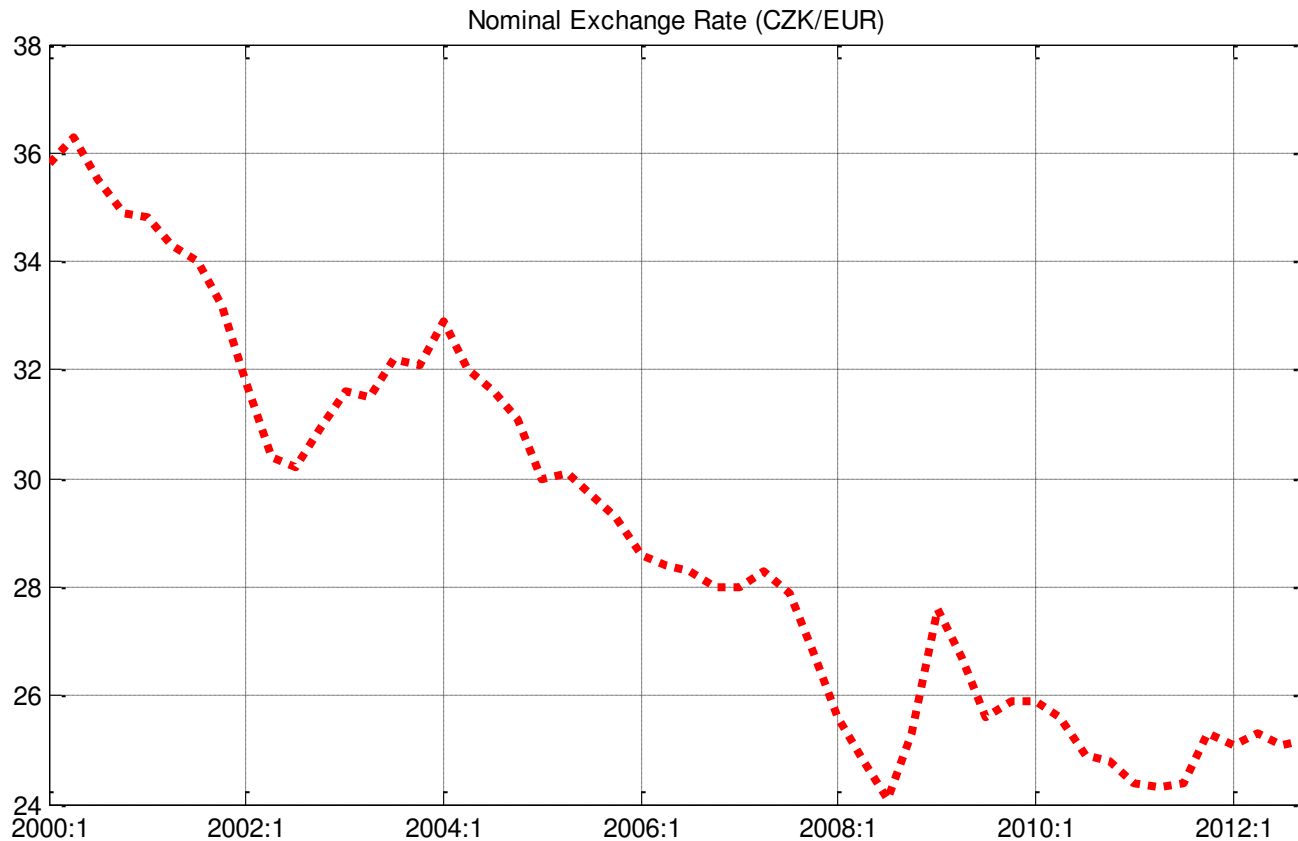
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- The economy converged until 2010
- Well synchronized with Germany with correlation strengthening over time



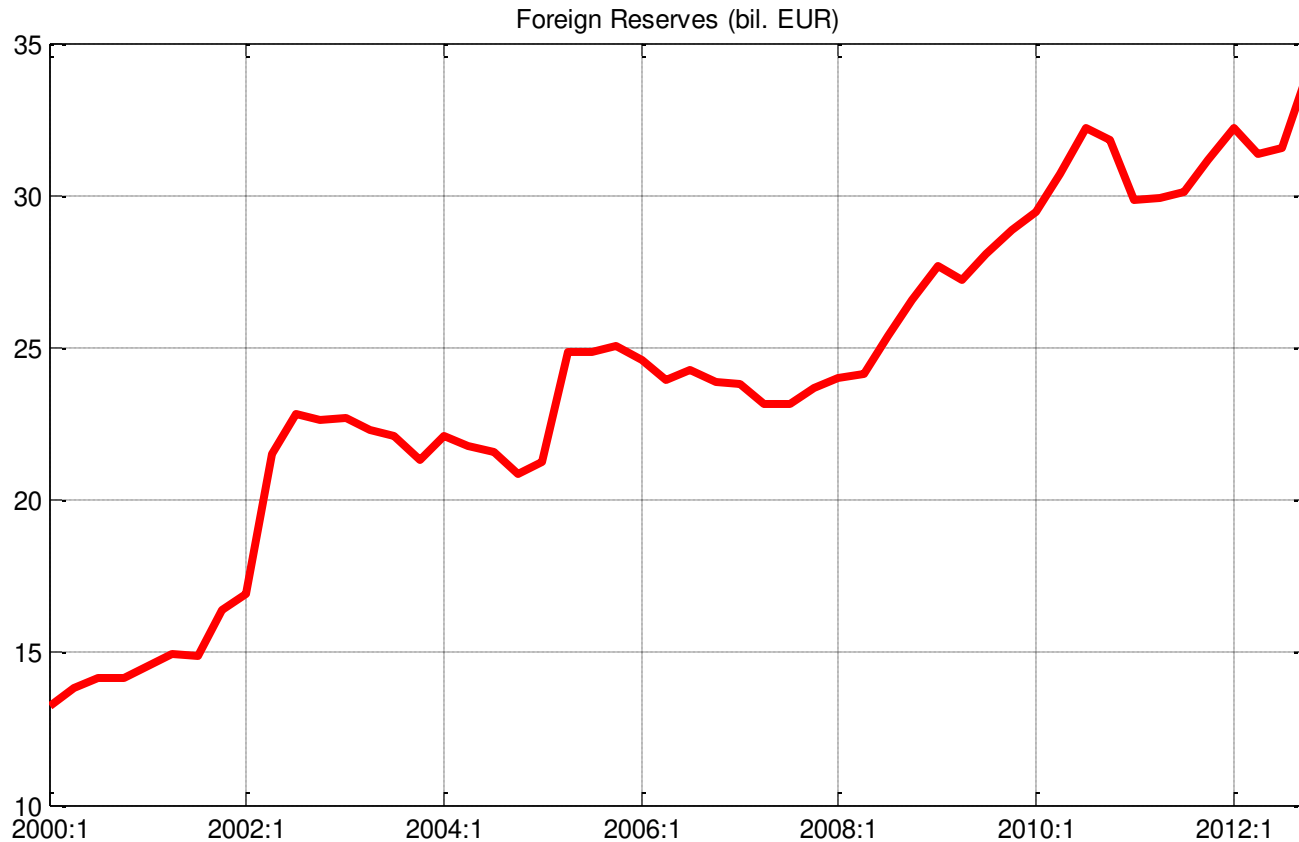
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- ... which drew an appreciation of the real exchange rate



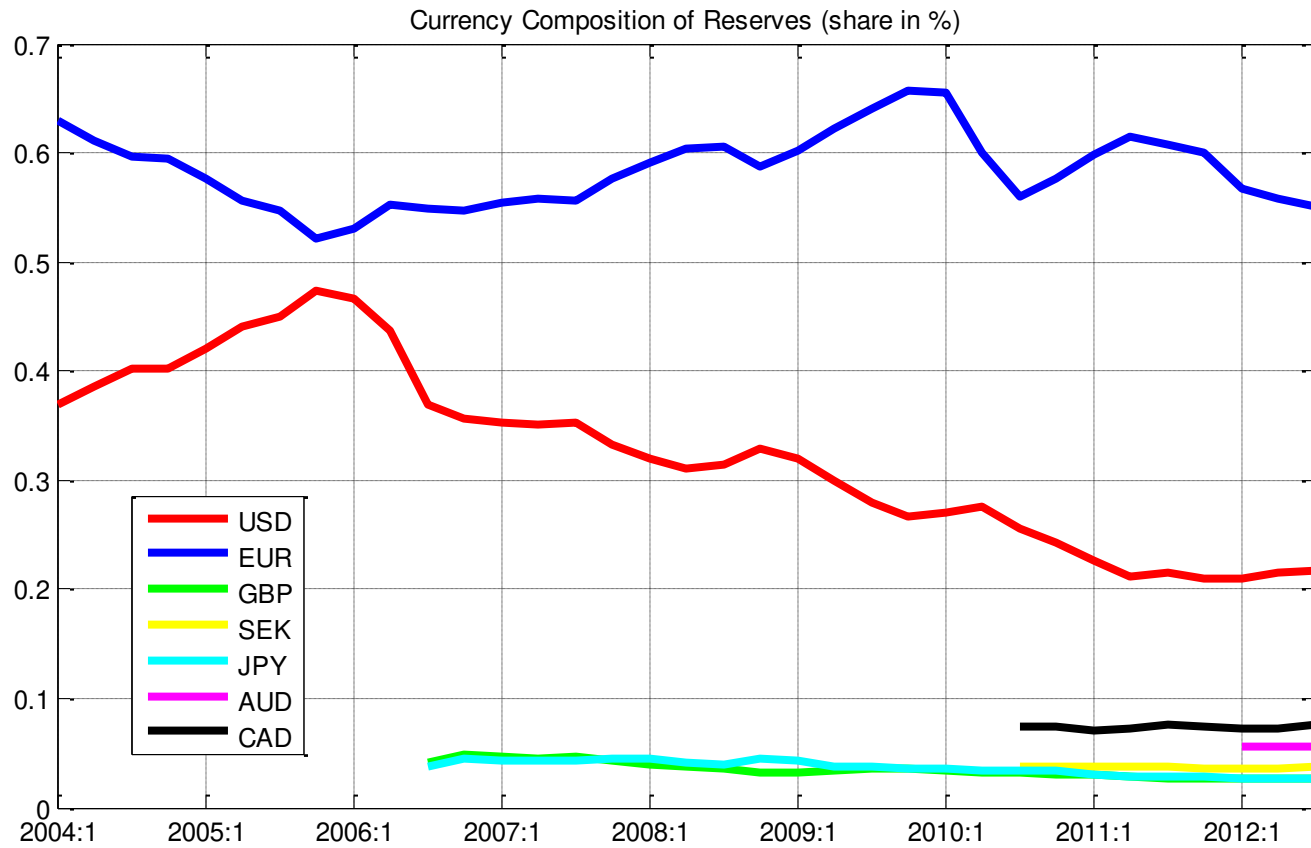
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- With zero inflation differential the real appreciation went fully through the nominal one
 - Average annual nominal appreciation reached 2.3% in 2000Q1-2012Q4



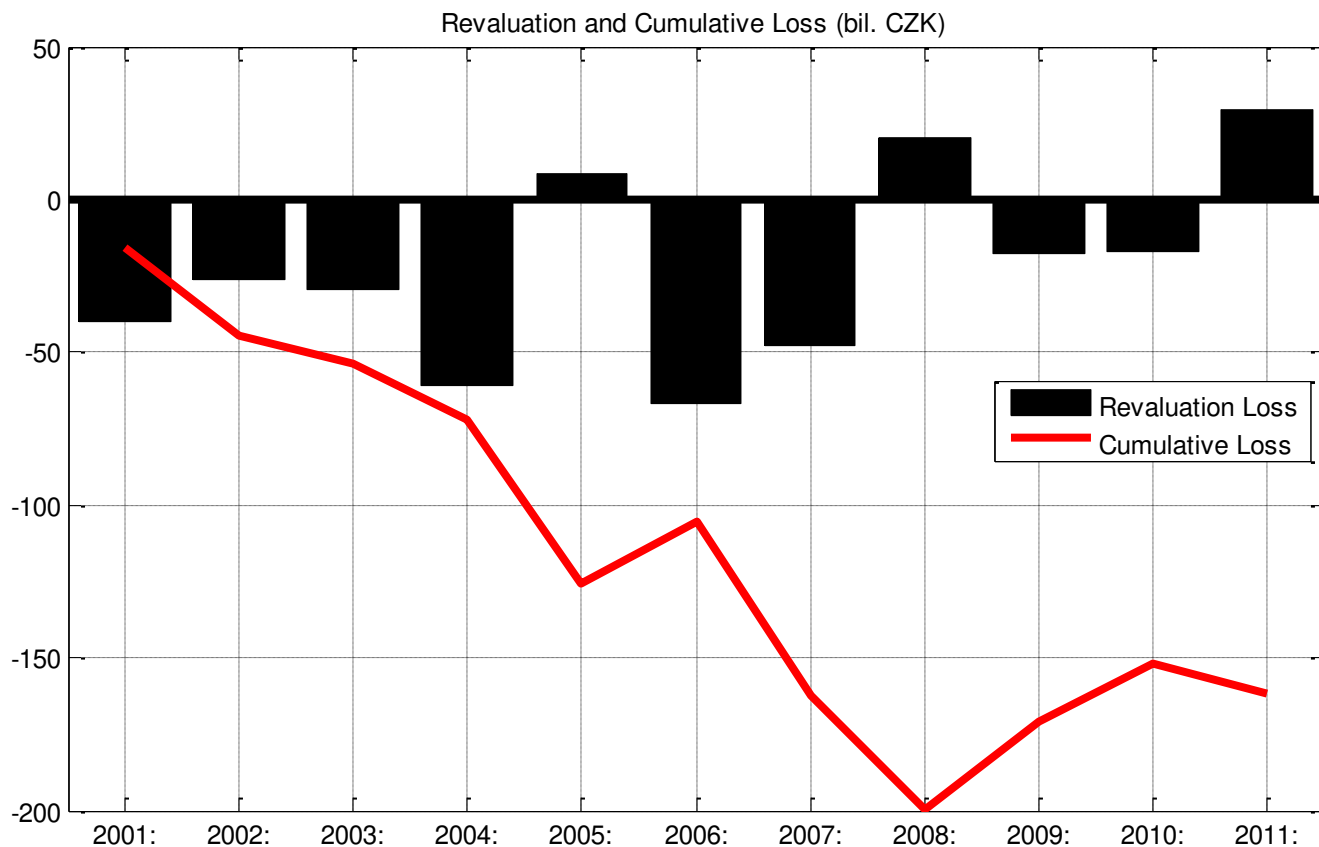
Source: Author

- With growing foreign reserves
 - Despite no market interventions since July 2002 and only purchasing government foreign currency revenues (privatization, eurobonds and EU's money)



Source: Author

- And following currency composition



Source: Author

- The bank started to face regular revaluation losses and the cumulative loss gradually increased
 - On February 20, 2013 the cumulative loss reached approximately 4.86 bill. EUR
 - Thanks to revaluation profit in 2011 and relatively small revaluation loss in 2012 cumulative loss declined from 2011

So what is the desirable exchange rate regime?

- Advantages of fixing
- Advantages of floating
- Which dominate?
- Optimum Currency Areas

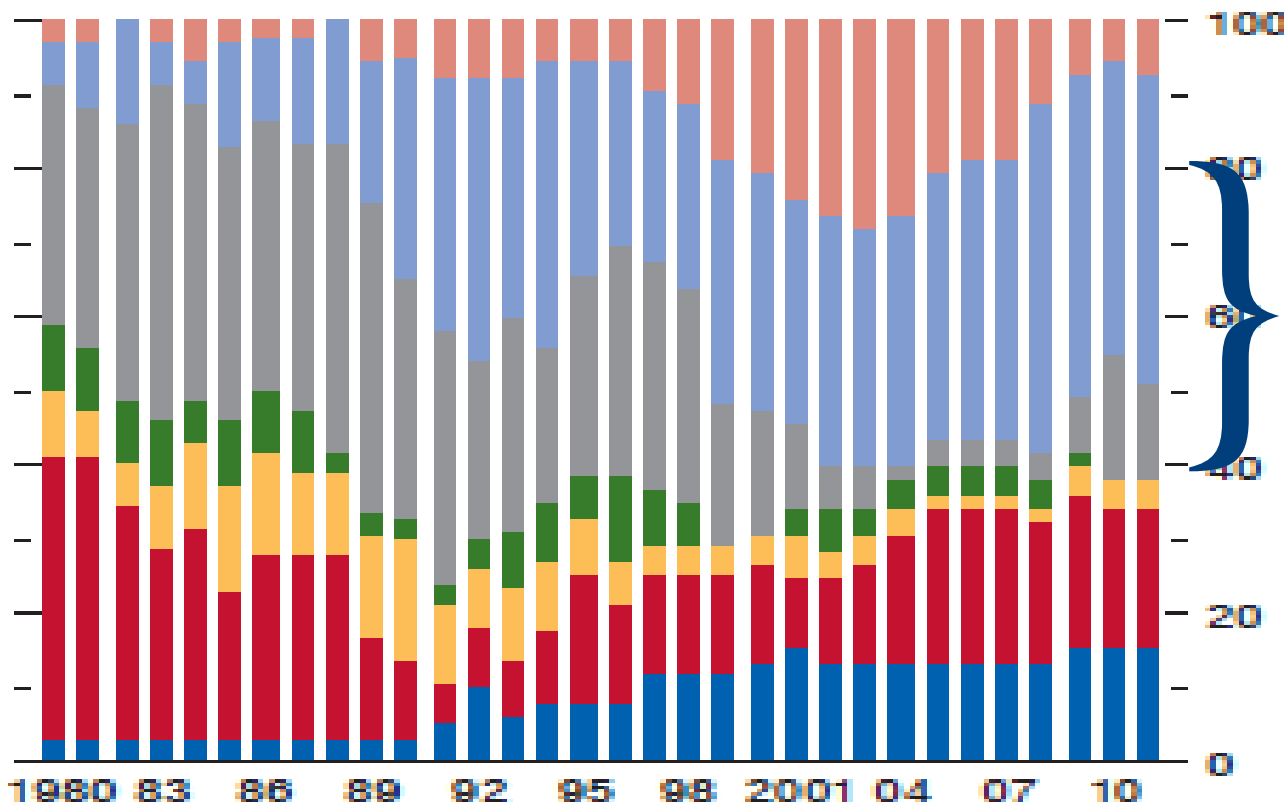
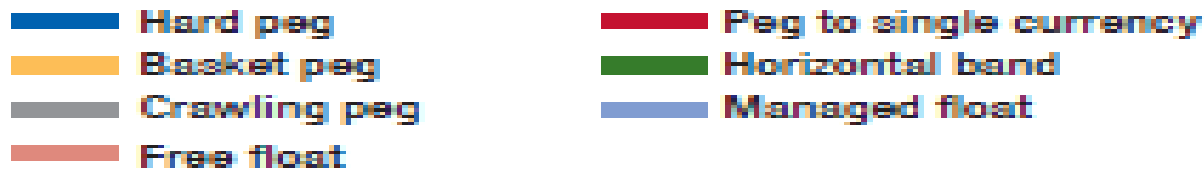
Theoretical advantages of fixed rates

- 1) Encourage trade \leq lower exchange risk
& lower transaction costs.
- 2) Encourage investment
 \leq cut currency premium out of interest rates.
- 3) Provide nominal anchor for monetary policy
But which anchor? Exchange rate target vs. Alternatives.
- 4) Avoid competitive depreciation (“currency wars”)
- 5) Avoid speculative bubbles that afflict floating
(vs. if variability is fundamental real exchange rate risk,
it will just pop up in prices instead of nominal exchange rates).

Theoretical advantages of floating rates

- 1) Monetary independence
- 2) Automatic adjustment to trade shocks
- 3) Retain seigniorage
- 4) Retain Lender of Last Resort function
- 5) Avoiding currency crises and crashes that hit pegged rates.

Distribution of EM exchange rate regimes



Distribution of Exchange Rate Regimes in Emerging Markets, 1980-2011 (percent of total)

Atish Ghosh, Jonathan Ostry & Mahvash Qureshi, 2013, "Exchange Rate Management and Crisis Susceptibility: A Reassessment," IMF ARC , Nov..

Source:

https://www.google.cz/search?q=Distribution+of+EM+exchange+rate+regimes&hl=cs&sxsrf=ALeKk00W9nZUXrunbKxf7mEsDOGX5QdMTw:1600890908833&source=lnms&tbm=isch&sa=X&ved=2ahUK EwjYqsevh4DsAhVHMewKHZXSba8Q_AUoAXoECAwQAw&biw=1395&bih=753#imgrc=ieCnlwMJUwB_yM

Optimum Currency Area Theory (OCA)

Developed by Mundell (1961)

Broad definition: An optimum currency area is an area that should have its own currency and own monetary policy. An area where autonomous monetary policy will be advantageous for stabilization purposes.

General Optimum Currency Area criteria

- **Small size + openness**
 - because then the advantages of fixing are large.
- **Symmetry of shocks**
 - because then giving up monetary independence is a small loss.
- **Labor mobility**
 - because then it is possible to adjust to shocks even without ability to expand money, cut interest rates or devalue.
- **Fiscal transfers in a federal system**
 - because then consumption is cushioned in a downturn.

Eurozone – does it satisfy optimum currency area conditions?

Concluding findings

- Fixed rates are better for countries with low financial development because markets are thin:
 - => costs of financial shocks outweigh benefits of accommodating real shocks.
- As financial markets develop, exchange flexibility becomes more attractive.
Estimated threshold: Private Credit/GDP > 40%.
- For richer & more financially developed countries, flexible rates work better:
 - more durable & deliver higher growth without inflation

Concluding findings

- An old wisdom regarding the source of shocks:
 - Fixed rates work best if shocks are mostly internal demand shocks (especially monetary);
 - Floating rates work best if shocks tend to be real shocks (especially external terms of trade).
- One case of supply shocks are political shocks (oil in 70s)
- Most common case of real shocks: trade, real economy

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2. **Friedman, M., 1969.** “The Optimum Quantity of Money,” Aldine Pub. Co.
3. **Mundell, R., 1961.** „A Theory of Optimum Currency Areas“, The American Economic Review, Vol. 51, No. 4, pp. 657–665.

Thank you for your attention!

Mojmír Hampl
mh@mojmirhampl.com