Capital flows and policies to deal with them: CNB experience during last two decades and lessons

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Sizeable capital flows typically transformed into excessive exchange rate movements; capital flows were dealt with by different sets of monetary policies.
Exit from exchange rate peg in 1997

- During 1991–1997 CNB maintained ER peg (basket: DEM, USD)
- In 1995 CZ started to liberalize capital flows (OECD entry)
- Simultaneous existence of: 1) free capital flows, 2) fixed ER and 3) independent monetary policy implied inconsistent monetary policy framework (textbook example of “Impossible Trinity”)
- May 1997: start of speculative attack against koruna:
  - CNB intervened against weak koruna ⇒ FX reserves depleted by 1/3 in several days
  - 27 May: forced exit from ER peg (loss of nominal anchor)
  - Increase in interest rates to prevent depreciation of koruna
  - Acceleration of inflation and emergence of uncertainties
  - Economic recession (purely home-made)
  - Escalating problems in banks (failures) ⇒ “twin crisis”
  - Non-existence of consistent monetary policy regime
- Adoption of inflation targeting in 1998 (first in Eastern Europe)

Lesson: Capital flows can be disruptive for monetary policy framework if it is inconsistent (forced exit from peg) and rather costly to economy (recession) and banking sector crisis
Privatisation account established in 2001

- In early 2000s Czech government decided to sell off large state-owned companies (gas, electricity, etc.)
- CNB was afraid of excessive appreciation of koruna if privatisation revenue entered forex market
- CNB (in close coordination with government) established scheme consisting in exchange of FX revenue for Czech government outside forex market
- Privatisation revenue implied corresponding increase in CNB FX reserves
- Scheme worked very well: privatisation revenue had no impact on exchange rate of koruna whatsoever

Privatisation account was capital flow management measure (CFM) used successfully in specific stage of economic transformation focused on large sales of state-owned property to (typically) foreign owners
Appreciation bubble: mid-2002

- In late 2001 koruna started to appreciate; 13% stronger (y-o-y; monthly averages) in April and July 2002
- Causes:
  - relatively high interest rate differential between koruna and euro (approx. 1.5 pp between Jan and Apr 2002)
  - ECB started to cut rates in late 2001, but CNB did not follow suit (CNB was “behind the curve”)
- Consequences:
  - quick pass-through from appreciated koruna to low inflation
  - low inflation $\Rightarrow$ higher real wages $\Rightarrow$ higher household consumption $\Rightarrow$ greater oscillation of business cycle
- CNB policies:
  - accelerated rate cuts (even outside regular MP meetings)
  - FX interventions against koruna
  - bubble burst in July 2002

Lesson: Independent monetary policy is not always that independent (CNB found limits of its independence)
Appreciation bubble: mid-2008

- Koruna appreciated by 17% (y-o-y; monthly averages) in July 2008, reaching all-time high in nominal terms
- No obvious reason (probably rather elevated financial market sentiment vis-à-vis koruna)
- CNB policies:
  - verbal intervention by former Governor Tůma
  - perfect timing of intervention: koruna changed direction towards depreciation immediately afterwards
- Economic consequences: modest
- While in mid-2008 koruna had been a shock producer, in 2009 it (luckily) became shock absorber

Lesson: Even in good economic times and with consistent monetary policy framework, capital flows can become unwanted shock producer for exchange rate
In Nov 2013 CNB adopted exchange rate commitment:
- koruna would not appreciate below CZK 27/euro
- CNB was prepared to make unlimited FX interventions
- commitment was roughly equivalent to cutting rates by 1 pp

Aim of commitment:
- to further ease monetary conditions at zero lower bound
- to tackle disinflationary/deflationary pressures
- to revive economy and achieve inflation target more quickly

Commitment was prolonged 5 times (until end of 2017 Q1)
ER commitment was not intended to cope with unwanted capital flows (and their unfavourable consequences). Rather, it was used to deliver further monetary easing.

An ability of conventional monetary policy tools (interest rate) to do so had been at the time exhausted.

Possibly paradoxically: ER commitment initiated capital speculative inflows of unprecedented size
Maintaining commitment required interventions (buying euro for koruna); interventions in each month of 2017 Q1 were (substantially) larger than in Nov 2013
Level of FX reserves at CNB started rising quickly shortly before exit from ER commitment; recent decline is implied by FX reserves stability and nominal GDP growth
ER commitment: side effects and lessons

- CNB FX reserves tripled in size in terms of nominal GDP during ER commitment (ERC)
- Although koruna appreciated after exit from ER (in April 2017) it has been basically flat since mid-2018
- Koruna is weaker than CNB expected; likely reasons:
  - koruna is (still) “overbought”
  - negative sentiment on financial markets to FX EMs
- Weak koruna allowed for further increase in interest rates (eight hikes since mid-2017),
- Currently weak koruna is partly consequence of former ERC: although ERC was exited *de jure* it remains with us *de facto*

ER commitment as unconventional monetary policy tool within inflation targeting framework delivered required easing of monetary conditions but has persistent effects for current pattern of monetary policy normalisation
## Capital flows and CNB policies: summary

In recent two decades CNB faced different challenges:

- **privatization foreign currency account (CFMs)** in 2001 managed to avert excessive ER volatility
- **ER commitment** as direct tool fulfilled its macroeconomic goals but stimulated very high speculative capital inflows

### CNB POLICIES ADOPTED BETWEEN 1997 AND 2017

<table>
<thead>
<tr>
<th>EVENT</th>
<th>foreign exchange intervention (FXI)</th>
<th>Interest rate adjustment</th>
<th>capital flow management measures (CFMs)</th>
<th>macroprudential policy measures (MPMs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exit from exchange rate peg</td>
<td>YES (sizeable)</td>
<td>YES (sizeable)</td>
<td>NO</td>
<td>NO</td>
</tr>
<tr>
<td>Appreciation bubble mid-2002</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
</tr>
<tr>
<td>Privatisation account</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Appreciation bubble mid-2008</td>
<td>YES (verbal int.)</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
</tr>
<tr>
<td>Exchange rate commitment</td>
<td>YES (later sizeable)</td>
<td>YES (ZLB)</td>
<td>NO</td>
<td>YES (as supplement)</td>
</tr>
</tbody>
</table>

In recent two decades CNB faced different challenges:

- privatization foreign currency account (CFMs) in 2001 managed to avert excessive ER volatility
- ER commitment as direct tool fulfilled its macroeconomic goals but stimulated very high speculative capital inflows
Fixed exchange rate (peg) became problem when capital flows were liberalised; regime proved unstable; with fixed exchange rate RIGHT TIMING OF EXIT IS EVERYTHING

Things went well when other (not only monetary) policies were:
- conservative and disciplined enough
- consistent
- transparent and predictable

Inflation targeting (IT) proved very flexible and resistant

ER commitment was costly for CNB credibility but not necessarily for inflation targeting framework as such

Despite all advantages of IT, CNB was reminded several times of limits of its monetary policy autonomy

Different policies were adopted by CNB to deal with capital flows; only when adjusted to given circumstances did they deliver desirable outcomes

Capital flows must always be watched with great care and treated in consistent, credible and decisive way
Thank you

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