Discussion of

When does a central bank's balance sheet require fiscal support?

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The opinions expressed are personal and do not necessarily reflect those of the ECB or the Eurosystem.

Motivation

- Which problems could large central banks' balance sheets pose in case of capital losses (due to various risks)?
  - "Can central banks go broke?" (W. Buiter, May 2008!) What does going broke mean for a central bank?
  - Going broke $\Longleftrightarrow$ high inflation?

Why a new research question?

- Interest on reserves: the demand for reserves has no opportunity cost

- The answer is not uncontroversial: “Central banks cannot default” (De Grauwe and Ji, 2013)

- Many possible aspects of the problem:

- Realistic computation of CB solvency risks at the current point in time (Carpenter et al. 2013, Hall and Reis, 2013)

- Computation of risk of CB inability to pay remittances for a while (accounting rules matter)

- Risk of loosing control of inflation

• This paper touches upon many of these aspects.

Results

- The PV of central banks' seignorage is high. It is unlikely that central banks will experience "solvency" difficulties as a result of their recent balance sheet expansions

- The problem of not being able to pay remittances may be real, but it is not a major problem

- The major problem witout fiscal backing may be price level indeterminacy.

I. Realistic computation of solvency risks

- Key intuition: as policy rates increase, not just bond prices, but also money demand will react

$$\text{Assets}_t + \text{PV}_t\text{Seignorage} = \text{Reserves}_t + \text{PV}_t\text{Remittances}$$

  where seniorage is defined as the change in real value of M

- Alternative definition: ability to issue non-interest-bearing liability $s \backsimeq r\frac{M}{P}$ or $s \backsimeq (\rho + \pi)\, m\,(r)$. Hence $\pi \uparrow$ generates higher inflation tax, but smaller tax base

I. Realistic computation of solvency risks

- Quantitative results sensitive to interest elasticity of m demand (as well as capital losses, plus relative speed of increase in r and m, i.e. policy rule)

- $\Rightarrow$ Match data on $v(r)$ (why is pre-1980 data less relevant?)

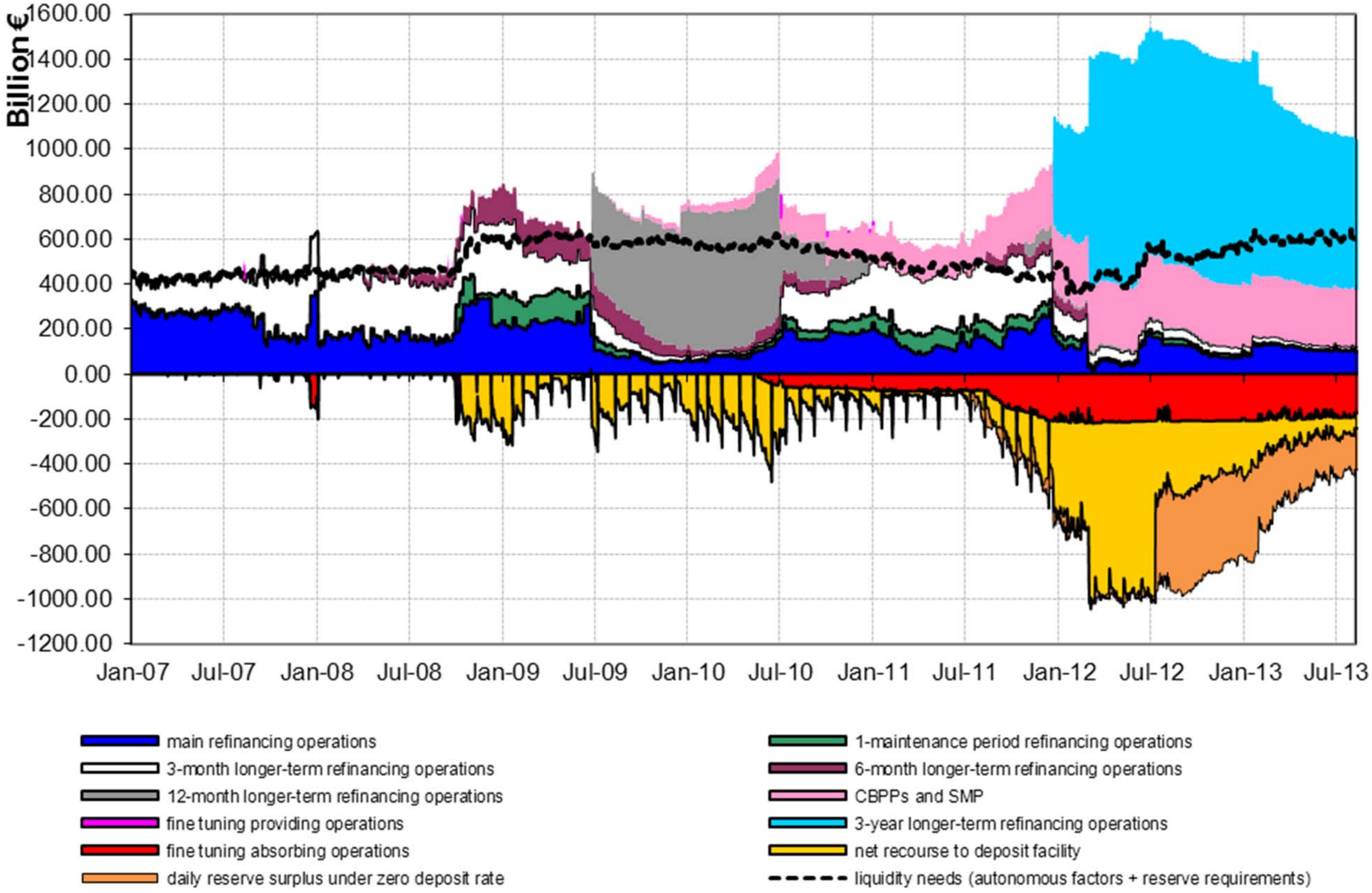
- SS seignorage also important. KP(1985): total remittances 0.02% of GNP during 1929-1952, 0.15% during 1952-1982. DS: 0.24%.

II. Risk of zero remittances

- Minor emphasis in the paper, more a political economy issue

- Simulations under assumption of exogenous B^C. ECB experience suggests that this assumption may be unwarranted

Developments in Eurosystem balance sheet (2)



II. Risk of zero remittances

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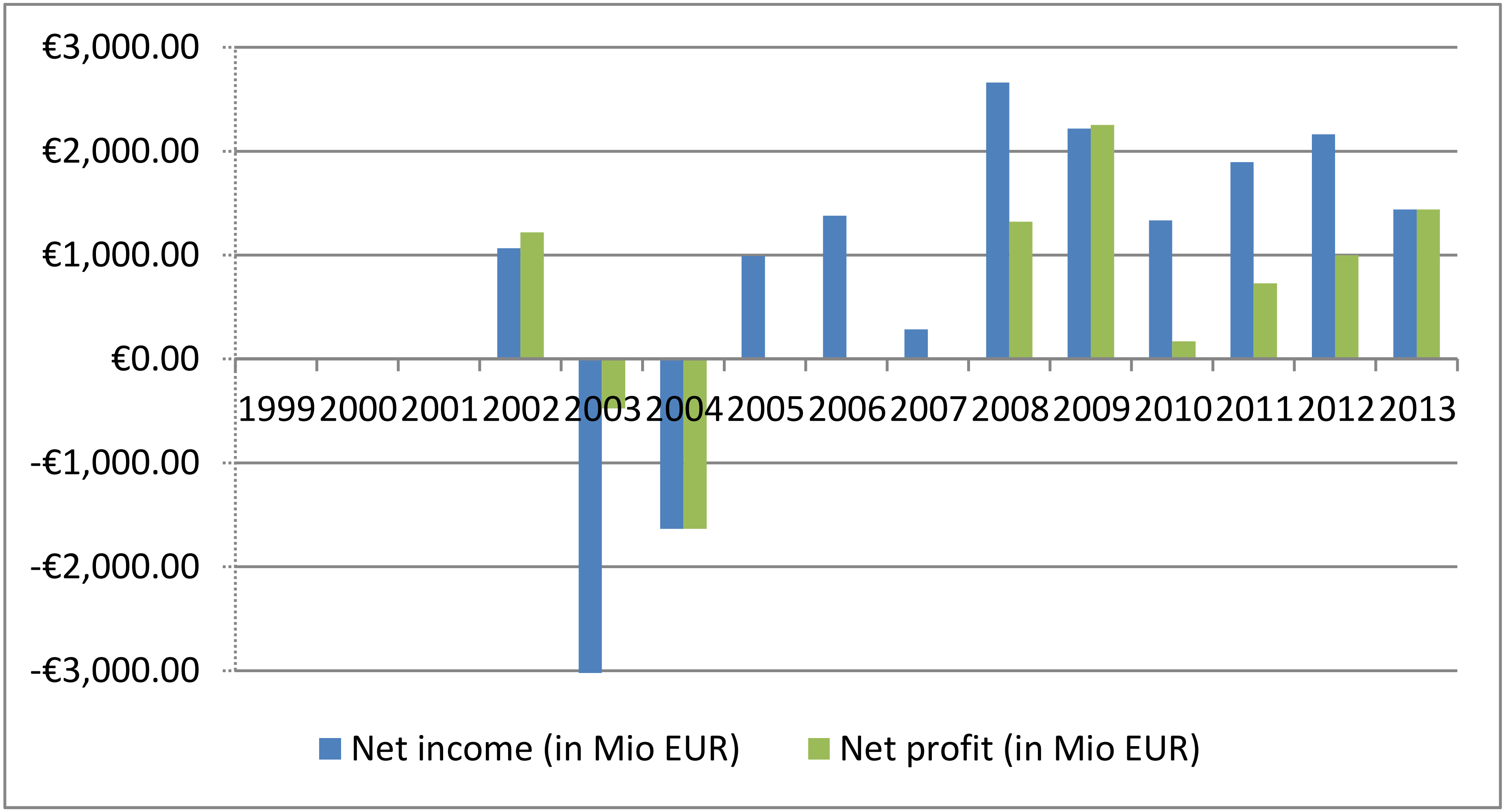
- As long as it is solvent, this concern is hard to understand from a euro area perspective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1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
Net income (in Mio EUR)
Net profit (in Mio EUR)

III. Risks of lack of fiscal backing

- General characterisation of model solution, including explosive inflation paths and $r = 0$ steady state (Cochrane, 2011, Benhabib, Schmitt-Grohé and Uribe, 2001) ...

- ... and proposal on how fiscal policy can rule them out

- Illustration of how confidence crisis could unfold

III. Risks of lack of fiscal backing

- Scenario. Assume central bank is on its own.
  - It can always expand M, i.e. purchase assets and pay with monetary base; but to contract M, it needs assets to sell
  - If few assets due to financial losses, M$\uparrow$. Inflation.
  - Alternatively, $i^m \uparrow$ to attract reserves. But eventually seignorage must finance i^m. If large financial losses and the CB is "insolvent", inflation

III. Risks of lack of fiscal backing

- Possibly limited inflation if small loss to be financed. But private sector may come to expect ever-accelerating inflation. This is the scenario explored in the paper

- Taylor rule cannot per se rule out explosive explosive inflation paths $\Longrightarrow$ fiscal intervention (backing) is necessary

- Interestingly, the central bank may stay solvent on the explosive inflation path

Summary

- Hot issue. Timely paper

- All in all, reassuring message on risks of CB "insolvency" ...

- ... but need for fiscal backing