I would like to thank the organisers for the kind invitation to speak at this prestigious conference. I am delighted and honoured to be in such distinguished company.

The question I would like to address today is whether a more pluralistic international monetary system – one with more international currencies on a more equal footing – would enhance global monetary, financial and macroeconomic stability.

This is a perennial question. It was, for instance, just as prominent under the Bretton Woods system as under the arrangements that have followed – which some regard as a “non-system” (eg Padoa-Schioppa and Saccomanni (1994)). And it presupposes the answer to another, more fundamental, question: what is the Achilles heel of the international monetary and financial system (IMFS)?

Note that I am choosing my words carefully. For, the “financial” dimension is just as important as the “monetary” one, although the shorthand “international monetary system” is much more common. This tendency perhaps harks back to post-war arrangements in which, for quite some time, finance played a subordinated role owing to constraints on capital flows and foreign exchange transactions. As we all know, that world is long gone.

There are three takeaways from my presentation.

First, there is no doubt that the dominance of one currency creates challenges for the IMFS. Fundamentally, the domestic interests of the country of issue need not coincide with those of the system as a whole.

Second, it is less clear, though, whether a more pluralist system, even if it was achieved, could help address the IMFS’s main weakness. To my mind, that weakness is its inability to prevent the build-up and unwinding of hugely damaging financial imbalances, or outsize financial cycles, thereby amplifying weaknesses in national arrangements (Borio (2014a)). This is what, with a colleague, Piti Disyatat, we have termed its “excess (financial) elasticity” (Borio and Disyatat (2011)). Think of an elastic band that you can stretch out further and further but that, as a result, snaps back more violently.

Third, addressing this weakness would require stronger anchors at national and international level. Some progress has been made, especially at national level. But much more needs to be done.

In what follows, I will first recall some basic facts to illustrate the US dollar’s dominance in the IMFS. Here I will consider the dollar’s three familiar roles, as a means of payment, a store of value and a unit of account. I will then explore the possible problems that this can create and put forward three propositions. I will finally turn to possible solutions and make three observations.

1 I would like to thank Bob McCauley, in particular, for help in the preparation of these remarks.

How to reach all Basel requirements at the same time?

Discussion by F. Boissay (BIS)

ACPR Seminar – 1st July 2016

The views expressed in this discussion are my own and do not necessarily reflect those of the BIS
Objectives of the Paper

O1. Describe banks’ balance sheet past adjustments to Basel III (RWCR, LR, LCR, NSFR), between 2011 to 2014

O2. Predict banks’ balance sheet future adjustments to Basel III, from 2014 onward
   - Which balance sheet variables will adjust the most, and how?
   - This is important as the way banks adjust affect the real economy

O3. Analyse the interactions between Basel III regulations
Quantitative Impact Studies (QIS) Data

- Bank level data on shortfalls, run-off factors, required-stable-funding factors, etc
- Data on 156 banks for year 2011 and year 2014
### Bank Balance Sheet and Regulatory Constraints

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- \( LCRS_i = 100\% - \frac{\theta_i^b b}{\theta_i^d d + \theta_i^m m - \theta_i^\ell \ell} \)
- \( RWCRS_i = 8\% - \frac{\omega_i^e e}{\omega_i^\ell \ell + \omega_i^b b} \)
- \( NSFRS_i = 100\% - \frac{\eta_i^e e + \eta_i^d d}{\eta_i^\ell \ell + \eta_i^b b} \)
- \( LRS_i = 3\% - \frac{e}{\ell + b} \)

*Parameters \( \theta_i^b, \theta_i^d, \ldots \) and shortfalls \( LCRS_i, RWCRS_i, NSFRS_i, LRS_i \) are from the QISs*
O1: How did banks adjust to Basel III between 2011 to 2014?

- Higher capital and liquidity ratios
- Less marketable securities
- More corporate lending
- Higher deposit-to-asset ratios

Distance to compliance in 2014: NSFR shortfall > LCR shortfall > RWCR shortfall
O2: How will banks adjust?

- Model 1: Mechanistic adjustment model
- Model 2: Optimal adjustment model
Model 1: Mechanistic Balance Sheet Adjustment

- Given the QIS bank–specific run–off, ASF, and RSF factors ($\theta^b_i, \theta^d_i,...$)
- Set the shortfall targets $LCRS^*_i = NSFRS^*_i = RWCRS^*_i = LRS^*_i = 0$
- Use the accounting identity $\Delta e + \Delta d + \Delta m = \Delta \ell + \Delta b$
- Back out the variations in bank i’s balance sheet variables $\Delta e, \Delta m, \Delta \ell, \Delta b$
  - $\Delta d$ is assumed to grow at the same pace as between 2011 and 2014
  - Solve 4 equations for 4 unknowns, bank by bank
Model 2: Optimal Balance Sheet Adjustment

- Given the QIS bank–specific run–off, ASF, and RSF factors ($\theta^b_i$, $\theta^d_i$, ...)
- Set the shortfall targets $LCRS^*_i = NSFRS^*_i = RWCRS^*_i = LRS^*_i = 0$
- Use the accounting identity $\Delta e + \Delta d + \Delta m = \Delta \ell + \Delta b$
- Back out the variations in bank i’s balance sheet variables $\Delta e$, $\Delta m$, $\Delta \ell$, $\Delta b$, $\Delta d$
  - Banks adjust their balance sheet so as to maximize a profit function $\pi(e, d, m, \ell, b)$
  - Solve 5 equations for 5 unknowns, bank by bank
• Change in credit is lower than the change in deposits
Complying with NSFR helps banks comply with RWCR and LCR
• The exercise could deliver more results
  • Too much discussion on the predictive power of the “in–sample” simulations based on 2010 data
  • Too little discussion on the results of the simulations based on 2014 data, i.e. on the answer to the paper’s question
• The very interesting results on regulatory interactions (regressions) could be exploited better. E.g., does over–compliance with regulation A helps comply with regulation B?
Comment 2: Predictive power of the model

- The analysis compares the simulations based on 2010 data for 2014 with the actual 2014 realizations.
- The predictions of the model for 2014 are consistent with the shortfalls being zero in 2014 (target).
- To evaluate the predictive power of the model, the comparison should be restricted to the banks, whose observed shortfalls are indeed zero in 2014.
Comment 3: Dealing with corner solutions in the simulations

- A corner solution for bank $i$ is a sign that bank $i$ cannot comply with regulation.
- The fraction of banks that cannot comply is a relevant statistics, and may not be disregarded.
Comment 4: Assumption that the “factors” are constant

- Factors (or parameters) change over time (Table 5), and can be part of the bank’s adjustment strategy (e.g. within marketable securities, the bank may invest in the securities with the lowest risk weights).
- Predictions assume those factors ($\theta^b_i$, $\theta^d_i$, ...) are constant.
- Adjustments only go through balance sheet variables (BSI size), not through factors (BSI quality). Hence the large number of corner solutions.
- Is it possible to also predict variations in factors to allow for another margin of adjustment (through BSI quality)?
Comment 5: Why re-set the initial shortfalls to zero when they are negative?

- The paper establishes that Basel III regulations interact
- If a bank over-complies with a given regulation, it may use the leeway to comply with another
- Two alternatives
  - Could leave the initial shortfall at its level
  - Could set the shortfall target equal to the initial shortfall
Comment 6: Why is there a shortfall term in the accounting identity?

\[ \Delta Z + \Delta C = Bk + \Delta K + \Delta D + \Delta M \]
Comment 7: What is the rationale for the bank’s objective function?

$$\max 0.015 \Delta Z + 0.035 \Delta C - 0.125 \Delta K - 0.026 \Delta D - 0.024 \Delta M$$
Comment 8: Aggregate effects

- Do the balance sheet adjustments at the individual bank level entail large adjustments at the aggregate level?
- Or do individual adjustments offset each other?
- Is there a risk of fire sales along the transition path?
- Aggregate up the variation in each balance sheet variable across all banks
Conclusion

- Simple and interesting analysis
- QIS data are very informative
- The paper is hard to read (drafting, notations, tables)
- Spell out the assumptions upfront
- More focus on the results