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**ISSUES PAPERS (CUTEG) # 13 & 14**

**ISSUANCE AND MIGRATION OF BANKNOTES IN A CURRENCY UNION**

The views expressed in this Paper are those of the authors and do not necessarily represent those of the International Monetary Fund nor the European Central Bank.

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**CURRENCY UNION TECHNICAL EXPERT GROUP**

**ISSUES PAPER (CUTEG) # 13 AND 14**

**Issuance of banknotes in a currency union**

1. With regard to the issuance of banknotes in a currency union (CU), several scenarios may exist, depending on which institution(s) is/are the legal issuer(s) of the CU banknotes<sup>1</sup>. The three possible scenarios are:

(i) the legal issuers of the CU banknotes are the national central banks of the CU member states (CU NCBs);

(ii) the legal issuer is the CU central bank (CU CB); and

(iii) the legal issuers are the pool of CU NCBs plus the CU CB. This latter scenario corresponds to the situation in the European Economic and Monetary Union (EMU) with regard to the issuance of euro banknotes.

2. In the first scenario, CU banknotes issued by the NCB of each specific country and held by residents of the country are to be considered as domestic claims. To the extent that (i) cross-border flows of banknotes take place, (ii) all banknotes are legal tender in all CU member states irrespective of the original NCB which issued them and (iii) there is no possibility to identify the original issuer, the consideration of those holdings as either domestic or cross-border is subject to debate.

3. In the second scenario, since the CU CB is a non-resident institution from a member state's perspective, all holdings by residents of the country may be regarded as external assets in the national b.o.p./i.i.p.

4. Finally, according to the third scenario whereby both CU NCBs and the CU CB are legal issuers of the CU banknotes, for the above-mentioned issues (under the first scenario) holdings by residents in the country are a mixture of (i) domestic and (ii) cross-border positions corresponding to (i) the share of CU banknotes issued by the NCB of the country and to (ii) the share of CU banknotes issued by the rest of the CU NCBs and the CU CB, respectively.

5. From the CU perspective, in all three scenarios holdings by CU residents would be considered as domestic claims, while holdings by non-residents of the CU would be considered as external liabilities. In the case of scenarios 1 and 3, the problem is how to interpret holdings by non-residents of the CU from the national perspective or, in other words, how to split such a external liability (from the CU perspective) in the national b.o.p./i.i.p. between the different CU member states.

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<sup>1</sup> By definition, banknotes grant holders a claim on the banknotes' legal issuer.

### **Current international standards for the statistical treatment of the issue**

6. References in current methodology to the issuance of banknotes in a *CU* are rather slim.
7. A definition of a currency is given in *1993 SNA* paragraph 11.70 and *Monetary and Financial Statistics Manual (MSFM 2000)* paragraph 124. In this definition, a currency should be divided into separate categories for national currency and foreign currency representing liabilities of central banks or government of foreign countries. Current methodology does not say anything specific about the case of banknotes issued within a *CU* (the *MFSM 2000* only mentions, in its paragraph 292, the difficulty of calculating the amount of currency in use in each country member of a *CU*).
8. At least, one implication of significance for a *CU* can be derived from the current methodology: banknotes that are legal tender in a country can still be classified as foreign assets if they are issued by other countries. The most important problem is that identifying the actual issuer of each individual *CU* banknote is (or might be) impossible on practical grounds, thus making the current methodology impossible to apply in practice.

### **Issues arising from the current treatment of CUs.**

9. The issuance of banknotes in a *CU* raises several methodological issues, which basically depend on which of the three scenarios considered above is applicable, i.e. which institution(s) is/are the legal issuer(s) of the *CU* banknotes or, in other words, on which balance sheet(s) are the liabilities corresponding to currency in circulation being recorded.
10. In particular, four methodological issues are developed hereafter: (i) currency arrangements (applicable to scenarios 1 and 3); (ii) banknote migration (scenarios 1 and 3); (iii) claims on the *CU* CB (scenario 2); and (iv) *CU* banknotes put into circulation by *CU* NCBs on behalf of the *CU* CB (scenarios 2 and 3)

#### Currency arrangements (scenarios 1 and 3)

11. Under scenarios 1 and 3, a source of discrepancy derives from the nature of the arrangement under which the currency is issued by the *CU* NCBs. According to each *CU* arrangements, the share of each NCB on the total issuance of *CU* banknotes has to be legally determined. However, over time NCBs may be obliged to gradually adjust the currency physically put into circulation to the actual demand for liquidity. NCBs then need to readjust periodically the amount of currency recorded in their balance sheets to the amount which they are legally entitled to issue. Such a readjustment process creates intra *CU* claims and liabilities between the NCBs of the participating member states.
12. In the Eurosystem, the currency is (legally) issued according to the share of each country in the capital of the ECB. Therefore, the aforementioned process of adjustment aligns the liabilities of the euro area NCBs to the proportions resulting from the so-called capital share mechanism (CSM).

13. How should these intra CU claims and liabilities be treated? Are they only of a “technical nature”, or do they represent real (external) claims and liabilities?

Banknote migration (scenarios 1 and 3)

14. In the case of NCB(s) being wholly (scenario 1) or partly (scenario 3) legal issuers of the CU banknotes, to the extent that banknotes may freely flow from one CU member state to another, currency in circulation in each country will certainly be different from the amount legally issued by the NCB. The magnitude of the discrepancy will equal the net amount of cross-border banknote flows (inflows minus outflows).

15. The most relevant question is whether holdings of CU banknotes by residents in the country can be considered as domestic or rather as cross-border claims, if there is no possibility to identify the issuer of each individual banknote.

16. Leaving aside practical problems, are on conceptual grounds external claims and liabilities derived from holdings of CU banknotes by national residents and residents in other CU countries in isolation a relevant issue for economic analysis from an individual country’s perspective?

17. Furthermore, considering holdings of CU banknotes by non-residents of the CU, how should these holdings be interpreted? Can they be interpreted as claims on any particular NCB?

Claims on the CU CB: scenario 2

18. Under scenario 2, i.e. the centralized model of CU (see definition in CUTEG Issues paper # 3), the currency is issued by the CU CB and the amount of currency in circulation is directly reflected in its balance sheet.

19. These banknotes are claims of member countries vis-à-vis the CU CB, and they should be part of the IIP of each member country Do CUTEG members agree?

20. What is the experience in those CUs with a centralized system?

CU banknotes put into circulation by CU NCBs on behalf of the CU CB (scenarios 2 and 3)

21. Under scenarios 2 and 3, another factor might be at the origin of a discrepancy between the amount of banknotes in circulation in a country and the amount legally issued by the NCB. This discrepancy originates from the arrangements whereby the share of the total circulation of CU banknotes allocated to the CU CB is actually (and physically) put into circulation by the CU NCBs (as an example the ECB is currently allocated 8% of the currency issue in the Eurosystem, which is physically put into circulation by the euro area NCBs). Everything being equal (i.e. notwithstanding the migration of banknotes within and outside the CU and other sources of discrepancies previously analysed), the amount of

banknotes put into circulation in each country will exceed the amount legally issued by the NCB in the percentage put into circulation on behalf of the CU CB.

22. Banknotes issued by the CU CB should be considered as a claim of the member countries on the CU CB. Do CUTEG members agree?

### **Possible treatments**

23. Regarding banknotes issuance and claims on the CU CB, as noted above there is little explicit guidance at present in current methodology. However, there is considerable practical experience in existing CUs in dealing with this issue.

24. From the perspective of the legal issuer(s) of the CU banknotes, there are two elements which need to be considered in this analysis:

(i) banknote holdings, which determine to whom the liabilities of the banknote issuer(s) are and, consequently, whether such liabilities have to be considered as either external or internal from both the national and the CU perspective; and

(ii) technical claims/liabilities between the CU NCBs arising from the difference between (legal) issuance of currency and currency actually put into circulation (only applicable to scenarios 1 and 3)

#### **(i) Banknote holdings**

25. In the absence of information on the level of currency in circulation in each CU member state, it might be impossible to determine whether banknotes issued by each country's NCB are held inside or outside the country. It might only be possible to determine whether banknotes are held inside or outside the CU. Two possible alternatives are presented for consideration:

26. 1<sup>st</sup> option: each country considers that the share of currency legally issued by the NCB equals the currency circulating inside the country at the end of each reporting period. This would imply that non-(national) resident holdings would amount to zero in both the national and the CU b.o.p. and i.i.p.

27. 2<sup>nd</sup> option: all CU banknotes are considered as domestic in the national b.o.p./i.i.p., while only the CU b.o.p./i.i.p. would record a liability vis-à-vis the rest of the world for the banknotes held by non-residents of the CU. Such an external liability could be allocated to the CU CB and would, thus, not need to be recognised in the national external statistics.

(ii) Technical claims/liabilities between CU NCBs and the CU CB

28. The treatment of technical claims/liabilities arising from the difference between (legal) issuance of currency and currency actually put into circulation has been already analysed in the EMU framework. It was decided that the intra-Eurosystem<sup>2</sup> (“technical”) claims and liabilities resulting from the euro-banknote issue should not be considered as “external” and should, thus, not be included in the national b.o.p./i.i.p.

29. The reasoning behind this decision was that, without information on the level of currency in circulation in each euro area Member State, including those claims and liabilities in the national b.o.p. would be as likely to add to errors and omissions as to reduce them. Indeed, the accounting offsetting entry to those balances in the balance sheet of NCBs and the ECB is another liability (currency and deposits) which cannot be considered as “external” in the absence of information on the actual holders of the banknotes put into circulation by each individual NCB.

30. If finally adopted, such a solution implicitly entails that no entries would be recorded in the national balance of payments, on the assumption that banknotes of the CU are always a domestic claim. This would be consistent with the second option considered in (i) above.

31. Remuneration of such “technical” balances: even if considered as purely technical balances, the non-inclusion in the national b.o.p. of income flows would generate errors and omissions, since, from an individual country’s perspective, they give rise to cross-border (even if intra-CU) settlements. In the EMU, it was considered that, given that the balances to which income flows are associated are not considered as “external” but rather as “technical”, the treatment as income in external statistics would be somewhat awkward. For this reason, it was decided to treat the remuneration of these balances as redistribution transfers and to record them under *Current account/current transfers*. Indeed, such re-distributions are similar to those linked to the monetary income allocation process in that they try to compensate some NCBs for (proportionally) issuing less banknotes compared with others (for all the reasons exhaustively analysed throughout this paper).

**Points for discussion**

*(i) What are the experiences in recording transactions and positions arising from issuance of banknotes in existing CUs?*

*(ii) How should banknotes owned domestically that represent claims on a CU CB be classified?*

*(iii) How should banknotes held by domestic residents, other CU residents and non-residents of the CU be considered in both national and CU b.o.p./i.i.p.? Would option 2 in this paper*

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<sup>2</sup> The Eurosystem is composed of the ECB and the NCBs of euro area countries.

*be an acceptable solution? Leaving aside practical problems, on conceptual grounds are external claims and liabilities derived from holdings of CU banknotes by national residents and residents in other CU countries in isolation a relevant issue for economic analysis from an individual country's perspective? Furthermore, considering holdings of CU banknotes by non-residents of the CU, how should these holdings be interpreted from an individual country's perspective? Can they be interpreted as claims on any particular NCB?*

*(iv) Under what criteria should intra-CU claims and liabilities derived from the issuance of banknotes be recorded in the IIP, and if so how should they be classified?*

*(v) If these intra-CU claims and liabilities are to be included in the IIP, what would be the related BOP flows?*

*(vi) Is the solution currently implemented in the EMU acceptable, namely (i) consideration of those balances as purely "technical" (thus not being included in the national b.o.p./i.i.p.); (ii) treatment of income accruing on these balances as redistribution transfers?*

## **References**

*1993 SNA, paragraph 11.70*

*Monetary and Financial Statistics Manual 2000, paras 124 and 292*