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T2 Balances: A Legal Perspective

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INTRODUCTION

European developments in the spring of 2018 have rekindled public interest in T2 balances. The debate is not new: the issue of T2 balances first came up at the height of Europe's sovereign debt crisis, and it has resurfaced since periodically, at times of heightened tension. Critics have argued that T2 balances resemble covert transfers (loans) from the national central banks (NCBs) of the euro area core to Member States (MS) in distress, without settlement terms or collateral, and with no legal or other democratic legitimation.[2]

This paper explores the risks of T2 balances for the ECB and the T2-participating NCBs, and seeks to shed light on the legal parameters of the debate. The latter have largely been neglected in the extant literature, whose main focus has been on the accounting and economic aspects of T2 balances.[3]

T2 BALANCES: NATURE AND RISKS

Introductory Remarks

In line with its statutory task of promoting the smooth operation of payment systems in the EU, the ECB and the NCBs own and operate the 'Trans-European Automated Real-time Gross Settlement Express Transfer System' (T2), the second generation of the interbank payment system for the real-time settlement, in central bank money, of cross-border payments in euros. Despite its technically centralised structure, T2 is legally *decentralised*, with the ECB and each participating/connected NCB operating its own T2 component.

The consolidated Eurosystem balance sheet (of which T2 balances are a component) consists, on the liability side, of banknotes, and of the deposit accounts of financial counterparties with the NCBs. On the asset side, the consolidated Eurosystem balance sheet consists of gold, foreign reserves, loans to financial counterparties and debt instruments purchased by the ECB and the NCBs.

T2 balances appear on the asset side of the Eurosystem's consolidated balance sheet, and the ECB has defined them as 'the claims and liabilities of euro area NCBs vis-à-vis the ECB that result from cross-border payments settled in central bank money'.[4] The NCBs' T2 balances mirror the cross-border fund transfers that T2-participating commercial banks routinely engage in, either for their own operations or on account of their customers. All of those operations generate payment flows processed through T2. At the end of each business day, all of the NCBs' intraday positions are aggregated and netted-out before being transferred to the ECB, resulting in a single intra-Eurosystem NCB position on the ECB alone, in whose books the NCBs' positions balance-out, adding up to zero.[5]

Although they may resemble national balances of payments, T2 balances are mere reflections of cross border monetary policy-related or private sector capital flows within the single currency area, the accounting treatment of which mirrors the decentralised nature of T2 as a multiplicity of systems.[6] Significantly, the T2 positions of the NCBs on the ECB are not constitutive of the cross-border trade imbalances they mirror, nor is it the mission of T2 to redress them (its mission is the real-time settlement of cross-border transfers in euros).

T2 Balances and their Risks

To analyse the risks, real or perceived, that T2 balances may generate for the ECB and the NCBs, it is possible to distinguish between T2 balances resulting from 'genuine' cross-border payments, and 'capital flight' (or 'crisis avoidance-motivated') transactions. This distinction is, arguably, artificial, as T2 will book and process all transactions in exactly the same way. However, it can help to shed some light on the reasons underlying the concerns hitherto expressed over the build-up of T2 balances.

Risks of Genuine Cross-Border Payments

'Genuine' cross-border T2 payments are those that aim to enable economic actors in one MS to discharge their financial obligations vis-à-vis economic actors in another MS. As mentioned above, at the end of each T2 business day cross border payment transactions may leave the NCB of MS A with an intra-Eurosystem 'liabil-

[1] ECB Legal Services. The views expressed here are purely personal, and they do not necessarily represent those of the ECB or the Eurosystem. The author is grateful to Yves Mersch and Ulrich Bindseil for his comments of an earlier draft of this paper. All remaining errors are those of the author who is solely responsible for the contents of this paper..

[2] See H-W Sinn, 'The ECB's Stealth Bailout' *(VoxEU.org,* 1 June 2011); *C.* Fahrholz and A. Freytag, 'Whither the TARGET2 System?' (2011) 57 (1) *Applied Economics Quarterly*, pp. 15–25; H-W Sinn, 'ifo Viewpoint No. 139: The Logic of the Target Trap' (CESifo Group, 30 November 2012); S. Homburg, 'Notes on the TARGET2 dispute' (*CESifo Forum*, 2012), pp. 50–54; H-W Sinn and T. Wollmershäuser, 'Target loans, current account balances and capital flows: the ECB's rescue facility' (2012) 19 *International Tax Public Finance*, pp. 468–508; and D. Blake, 'TARGET2: The silent bailout system that keeps the euro afloat' (*City University online*, 2018).

[3] See P. Cour-Thimann, 'TARGET Balances and the Crisis in the Euro Area' (*CESifo Forum*, April 2013); S. G. Cecchetti, R. N. McCauley and P. M. McGuire, 'Interpreting TARGET2 balances' (2012) BIS Working Papers No. 393; and U. Bindseil and P. Johann König, 'The economics of TARGET2 balances' (2011) SFB 649 Discussion Paper 2011–035. .

[4] ECB, 'TARGET balances and the asset purchase programme' (*Monthly Bulletin*, July 2016).

[5] TARGET2 Guideline, Article 6(2).

[6] Also see D. Wilsher, 'The Legal Mandate of the ECB and the Economic crisis' in Barnard, Llorens, Gehring and Schütze (eds), *The Cambridge Yearbook of European Legal Studies* (Vol. 15, Hart Publishing 2013), pp. 503-536; and K. Whelan, 'TARGET2 and Central Bank Balance Sheets' (2012) UCD Centre for Economic Research Working Paper Series, WP 12/29, p. 26).

ity' to the ECB and the NCB of MS B with an intra-Eurosystem 'claim' on the ECB. Both the claim and the liability contribute to the respective NCBs' T2 balances. Crucially, however, *no* direct asset transfers take place between the two NCBs: T2 will merely provide them with an *accounting* credit or debit, in the form of a position on the ECB, but with no assets to back the creditor NCB's claim.[7]

To speak of an NCB 'risk' in the context of genuine cross-border transactions merely because the latter will leave the NCB of the funds' recipient with an accounting claim on the ECB is to disregard the particularities of cross-border fund transfers within the framework of the Eurosystem's decentralised monetary policy implementation structure. In a fully centralised system, cross-border payment flows would not give rise to intra-system 'claims' and 'liabilities': had the ECB provided liquidity directly to counterparties, no T2 balances would have arisen.[8] Besides, to the extent that 'risks' may arise, these are unrelated to the operation of T2. Two sources of risk can be identified: the risk of default of the importer/its commercial bank before a fund transfer has been concluded, but after the exporter has parted company with the export goods/services; and the risk of default of a commercial bank on the debt it may have incurred to its NCB in order to finance a cross-border fund transfer. The first risk is not attributable to T2 (it is, instead, part and parcel of all economic activity). The second risk, which is more relevant to our discussion as it accrues to the Eurosystem, can be traced back to a regular liquidity-providing operation between an NCB and its domestic counterparties (it arises, in other words, in the context of a monetary policy operation unrelated to T2). The risk of an undefined 'default' of the NCB of a net-importing MS on its 'debt' to the NCB of a net-exporting MS (and, ultimately, the ECB), is explored below.

Risks of Crisis Avoidance-Motivated Transactions

Similar considerations apply to what we refer to in this paper as crisis avoidance-motivated transactions. A crisis avoidance-motivated transaction is one where an account holder with a commercial bank in MS A instructs her bank to transfer funds to an account she holds in MS B, not in order to discharge a genuine financial obligation, but in anticipation of a sovereign default episode, followed by the euro area exit of her MS of origin, with an impact on the currency of denomination of her deposits, and/or her ability to freely dispose of them.

The mechanics of crisis avoidance-motivated fund transfers will not differ from those of genuine cross-border transactions (T2 will process both in the same way), nor will they change the net asset positions of any institution other than that of those commercial banks where the relevant accounts are held. What may (but need not) differ is the way in which these transactions are funded: where funds move from one MS to another due to deposit flight driven by a crisis in confidence, the magnitude and concentration in time of fund transfers may be such that commercial banks could not satisfy demand for deposit withdrawals without resorting, for liquidity, to their NCB.

No less importantly, these types of transfers will generate no greater risks for the NCBs involved in them than genuine cross-border transactions. The commercial bank of the account holder of our example will have to provide collateral to its home NCB before the latter can extend to it the loan(s) necessary to satisfy deposit withdrawal demands. Should the borrowing commercial bank default, any loss suffered by its NCB will, therefore, be traceable to a Eurosystem credit operation, not T2. While this type of transaction may well lead to the 'creation of money', this will invariably be against adequate collateral, as per the second indent of Article 18(1) of the Statute of the ESCB and of the ECB ('the Statute'). Given that the attendant creation of money cannot be imputed to the payment system, it is unclear why the processing of cross border money transfers involving funds created through the regular money-creation process turns T2 into a 'covert' money-creation mechanism, as some have argued.

Other Remarks

There is a third type of transaction that impacts the NCBs' T2 balances: transactions relevant to the purchase on the secondary market, by the ECB and the NCBs, of securities under the various Eurosystem asset purchase programmes. Although asset purchase programmes have led to a significant rise in cross-border payments by purchasing NCBs (and, by implication, to a corresponding increase in T2 balances), the effects of asset purchases on T2 balances are largely shaped by how the NCBs' counterparties to those purchases are connected to T2. Credit institutions domiciled outside the euro area tend to participate in T2 via just a handful of NCBs: the T2 claims of those NCBs will inevitably increase whenever other NCBs purchase securities from non-euro area commercial banks that have chosen to connect, through them, to T2.[9] It follows that, just as the NCBs of net exporting nations will have a higher share of the total T2 positions on the ECB for no reason other than the direction of economic flows in the euro area, so will the NCBs of euro area MSs used by non-euro area commercial banks to connect to T2 account for a larger share of the total T2 positions arising from the purchase of securities under the Eurosystem asset purchase programmes. Short of disconnecting those non-euro area commercial banks from the T2 components of certain NCBs, and of diverting traffic to the NCBs of other MSs (those of the T2 debit countries), it is difficult to see how an increase in the T2 positions of certain NCBs can be arrested. Be that as it may, the increase in the T2 claims of certain NCBs since the launch of the Eurosystem purchase programmes need not be symptomatic of increased stress, nor a sign of market fragmentation, nor is it necessarily an indicator of imbalances that could affect a country's macroeconomic fundamentals as with the two other types of transactions covered above:[10] it may instead be the product of objective circumstances, such as the higher counterparty demand for the services of certain NCBs.

DEBTOR NCB DEFAULT ON ITS T2 LIABILITIES: A LEGAL ASSESSMENT

Introductory Remarks

Let us for one moment imagine that a debtor NCB were to withdraw from T2: could this NCB default on its T2 'debt'; and what would the legal consequences of its default be?

Some introductory remarks are apposite. Although the causes and potential implications of T2 imbalances have been extensively debated, the argument has not been made that the ECB was in breach of its mandate in allowing T2 imbalances to develop. As mentioned above, T2 balances merely reflect the free cross-border movement of capital, which is neither linear nor evenly balanced. Short of suspending free trade and the T2-processed capital transfers necessary for its financing, or of a reversion to the gold standard, it is difficult to see what the alternative is to the constant shifting of T2 balances; or how a decentralised payment system, such as T2, could work any differently and still preserve the unity of the single currency area. [11] Besides, the risks that some associate with T2 balances could only materialise in one of two scenarios: a change in the composition of the euro area, resulting in a change in the composition of T2 (scenario 1) or a complete break-up of the euro area (scenario 2). Leaving aside, for a moment, scenario 2 (to which we shall revert), it is submitted that scenario 1 is questionable legally, and unlikely practically.

To start with, euro adoption is both legally binding and irreversible,[12] with the irreversibility of euro area participation rendering a scenario in which an NCB would ever find itself confronted with a choice between remaining in, or exiting from, T2 highly improbable. Secondly, as euro area participation is not a condition precedent for an NCB's T2 participation, a MS exit from the euro area would have no impact on its NCB's eligibility for T2 participation (even if on a different legal basis).[13] Legal considerations aside, it is unclear why a withdrawing MS NCB would decide to cut itself and its constituency out of T2 and, simultaneously, default on its 'debt' in a euro area exit scenario. A MS exit from the euro area would trigger a crisis, not least in the withdrawing MS itself: it is not obvious why, at a time of crisis, when commercial banks and other financial actors in the withdrawing MS would desperately need to maintain access to the payment system, their central bank would opt to withdraw from T2. Another practical argument against T2 exit is this: a MS euro area exit would be accompanied by the issuance of a new currency, in which (some of) its outstanding debt would be redenominated. Because this currency would, in all probability, be devalued vis-à-vis the euro, repayment of the withdrawing NCB's accumulated T2 liabilities (assuming any such obligation to exist in the first place) would represent a challenge infinitely greater to the servicing of its T2 positions.[14]

Without prejudice to the foregoing considerations we endeavour to assess, below, the legal parameters of the eventual exit of an NCB from T2 accompanied by a default on its T2 liabilities.

Are T2 Balances a Form of Debt on which Default is Possible?

As explained earlier, T2 balances record the pattern of cross-border, monetary policy-related or private sector bank payments, and reflect the Eurosystem's decentralised modus operandi, as well as the euro area's financial structure, whereby banks attracting more liquidity holdings are located in some jurisdictions, but not in others.[15]

The NCBs' T2 positions on the ECB do not ostensibly take the form of loans: there is no loan agreement in place, the 'debts' that the NCBs incur vis-à-vis the ECB are not backed by collateral (although the underlying transfers themselves may well be collateralised), and

[7] In the Federal Reserve Bank System, assets move from one Reserve Bank to another. However, the '[F]ederal Reserve Districts do not correspond to national, or even state borders' (see A. L. Wolman, 'Federal Reserve Interdistrict Settlement', Richmond FRB Economic Quarterly, (2013) 99 (2), pp. 117-141, at p. 128).

[8] 'If the euro area had only a single central bank, all transaction participants would hold their accounts at the central bank, where all transactions would sum to zero' (C. Jobst, R. Holzfeind and M. Handig, 'Understanding TARGET2: The Eurosystem's payment system from an economic and balance sheet perspective' (Monetary Policy & The Economy (Oesterreichische Nationalbank), 2012), pp. 81-91 (Jobst et al., 2012), at p. 84).

[9] See S. Fiedler, S. Kooths and U. Stolzenburg, 'TARGET (im-)balances at record level: Should we worry?' (*European Parliament, Committee on Economic and Monetary Affairs*, November 2017), especially p. 11; and Deutsche Bundesbank, 'Monthly Report' (March 2016).

[10] '[U]ntil the beginning of the financial crisis in 2007, hardly any imbalances appeared in the system, since the current account deficits (and surpluses) of the different euro area Member States were balanced by cross-border private sector lending. This balancing dried out during the financial crisis, with the imbalances being aggravated by capital flight from the peripheral countries' (C. Herrmann, 'Legal Aspects of the European Sovereign Debt Crisis' (2013) 41 *Hitotsubashi Journal of Law and Politics,* pp. 25-40 (Herrmann, 2013), p. 34).

[11] 'Any attempt to cap [TARGET2 balances] would risk disruption of the EMU. These balances need to be resolved, but in a fashion that safeguards the integrity of the EMU' (A. Åslund, 'Why a Breakup of the Euro Area Must Be Avoided: Lessons from Previous Breakups' (2012) Peterson Institute for International Economics, Policy Brief, pp. 12-20). It has similarly been argued that, 'a limitation of TARGET2 positions would call into question the monetary union. A regular settlement has the same effect as a limitation and would basically transform the monetary union into a system of fixed exchange rates …' (U. Bindseil, P. Cour-Thimann and P. König, 'Target2 and Cross-border Interbank Payments during the Financial Crisis' (2012) 13 *CESifo Forum*, pp. 83-92, p. 84).

[12] See P. Athanassiou, 'Withdrawal and expulsion from the EU and EMU: some reflections' (2009) ECB Legal Working Paper Series, No.10.

[13] TARGET2 Guideline, Article 4.

[14] TARGET2 balances held overnight are remunerated at the interest rate applicable to main refinancing operations (debtor NCBs are to pay while creditor NCBs are to receive interest).

[15] See the response of the President of the ECB to MEP Werner Langen, available at the ECB's website.

there are no repayment terms as one would have expected of genuine 'debts'. Besides, to the extent that T2 balances represent claims, these are not only those of the creditor NCBs, but of all NCBs jointly, as monopolistic (co-)issuers of the single currency. The fact that the Eurosystem has chosen to account for that process by way of claims and obligations is more to do with the euro area's decentralised monetary policy implementation model, where the ECB relies on the NCBs to provide liquidity to commercial banks, than with any conscious attempt to institutionalize an intra-Eurosystem lending mechanism.

It has been argued that the absence of an NCB obligation to repay principal only applies at normal times, but not to a scenario involving the exit of a debtor NCB from T2: in such a scenario a disequilibrium would arise in the ECB's balance sheet between T2 credits and debits, with the latter no longer totalling zero. For all its common sense attraction, the above argument is, in this author's view, flawed. To accept it as valid would be to turn on its head the reality of cross-border fund transfers within a monetary union, where the (accounting) claim of the NCB of a net-exporting MS against the NCB of a net-importing MS (and, ultimately, the ECB) is invariably mirrored by an asset of equivalent value to the claim, in the form of funds actually transferred, through T2, from commercial bank accounts in the net-importing MS to commercial bank accounts in the net-exporting MS. This is corroborated by paragraph 1 of Article 6 of the T2 Guideline (entitled 'Intra-Eurosystem settlement'): it is implicit in this provision that, for intra-Eurosystem transactions, settlement takes place at the level of their T2 participants, not at that of the NCB through which they participate in T2.[16] The fact that no direct asset transfers occur between the two NCBs changes nothing in terms of the legal and economic reality of cross-border T2 transactions: value does, actually, move from economic actors in the net-importing MSs (those running deficits) to economic actors in the net-exporting MSs (those running surpluses), hence the decrease in the liabilities of commercial banks in the former, and the corresponding increase in the liabilities of commercial banks in the latter. To accept that T2 balances represent 'debts' is to posit, rather implausibly, that the exports to country A (where a debtor T2 NCB operates) of a company based in country B (where a creditor NCB operates) are financed by the exporting MS NCB, rather than by the private economic agents involved in them.

To conclude, it is far from clear that negative T2 balances represent debts on which default is legally possible. Arguably, the only debts there can be vis-à-vis a central bank are those arising in the context of its lending operations. Unlike T2 operations, which are not collateralised as they are not intended as monetary policy operations, both refinancing and intraday credit-providing operations are fully collateralised, precisely in order to protect the lending NCBs from the risk of counterparty default. On balance, it is difficult to see what additional risks T2 operations can give rise to for the creditor NCBs and, ultimately, for the ECB, beyond the risks that the ECB and the NCBs are exposed to through their monetary policy operations.[17]

[16] TARGET2 Guideline, Article 6(1).

[17] See also Jobst et al., p. 89.

Can a Creditor NCB Default on its T2 Balances?

We consider below, whether debtor NCB default is possible. In a T2 context, the very concept of an NCB 'default' is undefined. This is because, as mentioned above, the positions of the NCBs vis-à-vis the ECB are not backed by a loan agreement, nor is there any reference in the T2 Guideline to the maturity of the T2 balances or the terms of their repayment. Similarly, nowhere does the T2 legal framework define the concept of an 'NCB default' on its T2 liabilities (it is only the default of T2 participants, i.e. of NCB counterparties that the T2 legal framework regulates).

Despite the above, the prevailing wisdom is that, should a debtor NCB exit T2, following the euro area exit of its home MS, the ECB's balance sheet would automatically record any outstanding claims of the ECB against it as assets no longer balanced-out, hence as claims due for settlement. Because the departing NCB would be expected to discharge its debt in euros, rather than in its (new) national currency, and because the latter would presumably be significantly devalued vis-à-vis the euro, repayment would become difficult or, in extremis, impossible. Although the departing NCB could, in theory, print money so as to fulfil its obligations, this could bring a further devaluation of its new currency, threatening to precipitate its default. As the claims of the creditor NCBs on the ECB do not represent direct assets of those NCBs (all credits and liabilities are those of the ECB itself), in the event of an NCB's default on its T2 liabilities to the ECB, the remaining NCBs would become liable for their predetermined share of the total ECB losses, in proportion to their share of the ECB's capital key. The cost of the ECB's recapitalisation would ultimately be borne by euro area taxpayers.

The above scenario rests on three assumptions, which, however plausible, are not universally accepted as valid: firstly, that there is a debt on which default is possible; secondly, that this debt is precisely quantifiable; and thirdly that, in the event of ECB losses, the NCBs ought to recapitalize the ECB. On the first of these assumptions, we refer the reader to our discussion in the foregoing pararaph. On the second assumption, it is an open question whether calculating the exact amount of the ECB's claim against a defaulting T2 debtor NCB would be a straightforward exercise (it is a hallmark of anything that purports to qualify as a debt that it should be amenable to precise quantification, in the absence of which its very characterisation as 'debt' is debatable). The third assumption (that central banks cannot operate on a negative balance sheet) is open to debate, but it would go beyond the scope of this paper to delve into that point here. Although the ECB has touched on the general issue of the impact of negative equity on the monetary policy effectiveness of the ESCB NCBs in some of its Opinions[18] and Convergence Reports,[19] the analysis to date mostly covers non-euro area NCBs, and only approaches the issue from the perspective of the principle of central bank (mainly financial) independence.[20] Suffice it to say that the existence of a requirement to recapitalise the ECB in the event of a T2 debtor NCB's default cannot be taken for granted, and the validity of the concerns expressed with T2 balances largely stands or falls on the existence of precisely such a requirement.

DEMISE OF T2: SOME THOUGHTS

If the scenario of a change in the composition of the euro area is difficult to countenance, this is *a fortiori* true of its dissolution.[21] Whilst speculative, what follows is useful, mostly as a thought exercise.

The prevailing wisdom is that, in the event of a euro area break up, a consolidated balance sheet for the ECB would have to be drawn up, and outstanding claims and liabilities would have to be settled before any remaining capital shares and profits are distributed among the (former) T2-participating NCBs.[22] Two pertinent questions arise: firstly, whether outstanding T2 positions can be honoured after the T2 apex entity has disappeared, and secondly, which law would apply to those positions. At present, Article 25 of the T2 Guideline governs the process of dispute resolution, and determines the law applicable to it. However, in a T2 demise scenario, it is unclear which court would be competent to adjudicate over an unresolved dispute, or which law that court would apply. In such a scenario, the argument runs, creditor NCBs would risk finding themselves with a claim against a system that no longer exists.

The above scenario is only valid to the extent that T2 positions represent debts on which default is legally possible. For the reasons explained earlier in this paper, it is unclear whether negative T2 balances legally represent debts to which the concept of default can meaningfully apply. Moreover, as discussed earlier in this paper, T2 liabilities do not amount to a source of risk for the NCBs that would be *additional* to the risk they assume when conducting regular monetary policy operations or providing intraday credit, invariably against collateral. That collateral may depreciate is true. However, this can, at best, provide the basis for a criticism of the Eurosystem collateral or risk management frameworks, not T2. One respect in which a euro area break up scenario would differ from that of change in the composition of T2 exit is that loss sharing would only apply in the latter scenario. However, on the understanding that there may be no debt proper on which default would be possible, this element appears to be of limited practical relevance.

[18] See, for instance, CON/2017/17, para. 3.3.5, and CON/2016/55, para. 2.5

[19] See, for instance, ECB, 'Convergence Report' (June 2016), p. 24.

[20] An NCB's recapitalisation could also raise issues from the perspective of the monetary financing prohibition, not addressed in the ECB Convergence Reports.

[21] 'The Bundesbank's Target2 claims do not constitute a risk in themselves because I believe the idea that monetary union may fall apart is quite absurd …' (J. Weidmann, Deutsche Bundesbank President, Open Letter, published in the Frankfurter Allgemeine Zeitung and Het Financieele Dagblad, 13 March 2012).

[22] See H-W Sinn, 'Target losses in case of a euro breakup' (*CESifo Group, 2012).*

CONCLUDING REMARKS

T2 balances are the product of the decentralised nature of the euro area, and of its large value payment system, which is structured as a multiplicity of systems. Despite the fact that no assets move from a debtor to a creditor NCB to 'settle' T2 positions, it is unclear whether the latter can be treated as 'debts'. As reflected in the decrease in the liabilities of commercial banks in the T2 debtor NCB countries and in the corresponding increase in the liabilities of commercial banks in the T2 creditor NCB countries, the (accounting) claim of creditor NCBs is invariably matched by the transfer of an asset of equivalent value to that claim (the funds actually transferred, through T2, from commercial bank accounts in one MS to commercial bank accounts in another). No less importantly, the proposition that T2 liabilities represent a source of risk for the NCBs that is additional to the risk they assume when conducting regular monetary policy operations or when extending intraday credit, is unsupported. Outside a euro area dissolution scenario, the risks that the NCBs are exposed to when transferring, through T2, liquidity created and provided to the private sector are kept in check by a dual control mechanism: firstly, the statutory requirement for borrowers to post collateral to their NCB before they can access central bank liquidity and, secondly, the loss-sharing regime. Even if only the former were to remain relevant in a euro area dissolution scenario, it is speculative to posit that it would under no circumstances suffice to immunize creditor NCBs from the risk of losses.

Why, then, have T2 balances been at the spotlight? What is implicit in the works of T2's most prominent critics is their concern with what they perceive as a reduction in the Eurosystem's collateral requirements for credit operations, the attendant expansion of refinancing credit (effectively, money creation), as well as the NCB-financed capital flight and persistent, structural current account deficits that T2 is deemed to facilitate. It follows that, in truth, the concerns hitherto expressed by the critics of T2 are triggered, on the one hand, by the Eurosystem collateral framework, which, in their view, facilitates unbridled commercial bank borrowing from the NCBs and, on the other hand, by the mounting, T2-recorded trade imbalances, which may, at some future point in time, necessitate wealth transfers from some MSs to others.

RESEARCH REPORT

Concerns with a constant widening of trade deficits, capital flight from the euro area periphery, and the expansion of the monetary base are not, *per se*, unwarranted. However, neither trade imbalances, which many are bound to perceive negatively, nor money creation are attributable to T2, whose exclusive task is to facilitate fund transfers, *after* the funds in question have come into existence through the regular money creation channel. Targeted, long-term solutions, ranging from the more modest to the more ambitious, would need to be explored if rising trade imbalances are to be addressed effectively and systematically. Although this author is unqualified to assess the need for adjustments to the rules-based Eurosystem collateral framework, what is clear to him is that its contours are within the remit of the Governing Council, which is alone competent to determine and implement the collateral policy that best suits market needs and liquidity conditions in the euro area. Until such time as the Governing Council has decided that market developments render policy adjustments necessary, it seems unreasonable to blame trade imbalances on T2, when all that T2 does is to record, rather than to create, those imbalances. Similarly, to present T2 as an autonomous channel through which to expand the monetary base *ad infinitum* is to disregard the fact that what sets limits to the creation of money is the availability of adequate collateral, and to forget that, whilst the role of T2 is to facilitate the flow of liquidity, its infrastructure only comes into play *after* liquidity has been created through the regular monetary policy process.

The temptation to blame those bearing bad news is understandable. However, in this, as in all other contexts, this must be resisted vigorously, if the true causes of outcomes perceived negatively are to be identified and addressed, with the benefit of the intellectual probity that problem-solving necessitates.