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The rise of national central banks' TARGET balances: a response to Andrea Terzi

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In response to our paper, 'ECB monetary expansions and euro area TARGET2 imbalances: a balance-of-payment-based decomposition,' Professor Andrea Terzi has criticized our approach of TARGET2 balance decomposition, by highlighting a lack of causality between balance-of-payments (BP) flows and TARGET2 net balances. Proving a strong causality link was not within the scope of our paper; while acknowledging that causal relationships are difficult to prove from data that have to fulfill an accounting identity, we still believe that useful information can be extracted from the analysis of BP accounting correspondences. From this perspective a long-term BP reconstruction for Italy and Germany is performed that confirms Terzi's claim about the rise of TARGET2 balances under specific monetary policy configurations.

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JEL codes: *E42, E44, E52, E58, F32, F34*

1 CAUSAL RELATIONSHIPS AND THE BALANCE-OF-PAYMENTS (BP) ACCOUNTING IDENTITY

We agree with Terzi's interpretation of the presence of two different regimes of monetary policies in the period 1999–2018 under which the TARGET2 balances have displayed different patterns (see Section 5 in the present paper). However, also for editorial constraints, such an analysis was outside the scope of our paper, which focused on the behavior of TARGET2 balances during the eurozone crisis and the implementation of the European Central Bank's (ECB) quantitative easing.

We naturally agree with Terzi that every TARGET2 decomposition 'reveals accounting correspondences, not causality' (Terzi 2019: 167). Indeed, as pointed out by Auer (2014) and Eisenschmidt et al. (2017), the closer the data are to an accounting identity, the less information on causal relations can be inferred from econometric exercises. For this reason,

* *Corresponding author:* Email: m.minenna@consob.it. We thank Professor Andrea Terzi for his careful work and his observations which stimulate us to further clarify some features of our paper. However, we do not fully agree with all his conclusions and in the following we provide a reply to his comments.

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we did not run any panel-data econometric regressions or causality tests, preferring to provide a comparative analysis of the TARGET2 and BP data as regularly done in this stream of literature (see for example Buiter et al. 2011a; 2011b; 2011c; Sinn/Wollmershaeuser 2011a; 2011b; 2012a; 2012b; Bindseil et al. 2012; Bornhorst/Mody 2012; Jobst et al. 2012; and the BP analyses regularly published by the Bank of Italy[1]).

The co-movements between TARGET2 balances and BP cumulated flows cannot be completely disconnected and they convey a certain amount of useful information, especially for evident cases such as the German current-account surplus with respect to the eurozone, as well as to the rest of the world.

2 THE HYPOTHESIS OF NCBs' UNIFORM TRADE PATTERN

Terzi (2019: 166) contests our hypothesis that national central banks (NCBs) 'make purchases from domestic and foreign investors using a uniform trading pattern.' As no one knows how NCBs perform their purchases, we made a conservative choice consistent with the principle of market neutrality that does not require any additional assumptions on how the seller may behave.[2] Terzi (ibid.: 166) claims that (1) 'NCBs do not use any trading pattern other than taking the lowest dealers' ask price.' We think that this is only another hypothesis, since, according to the ECB, the price of the asset is only an element to be evaluated in the purchase decision (Cœuré 2015). Nonetheless, our hypothesis is not necessarily in contrast with (1), rather it is perfectly consistent with it if foreign investors are no more willing to sell securities to the NCBs than the national ones. It would lead to wrong conclusions only in the case highlighted by Terzi (ibid.: 166) where 'foreign investors have sold [government bonds] disproportionally to domestic investors' (2). In that case, in fact, 'the probability that counterparties are non-resident entities does not necessarily mirror their holding shares' (ibid.: 166). But (2) is another presumption on the behavior of other agents; in the absence of precise information we are dealing with two speculations instead of one. Moreover, the data regarding the foreign holdings of government bonds do not seem to support Terzi's speculation: since the inception of quantitative easing, foreign investors have increased their holdings share in Spain (+3.4 percent) while Italy experienced a limited reduction (–3.8 percent) only in the last two quarters of 2018, clearly not attributable to central banks' purchases.[3]

3 THE GROWTH OF THE DEPOSITS IN EUROS OF NON-EURO-AREA RESIDENTS AT THE BUNDESBANK

We agree with Terzi (2019: 166) that the 'series [liabilities to non-euro-area residents denominated in euros] is mainly related to deposits of non-EA central banks and monetary authorities at the Bundesbank.' Moreover, this item is part of the BP reconstruction of Germany's TARGET2 net balance, classified as 'Other Central Bank Liabilities different from Target2.' However, the dynamics of this accounting item is indeed connected

1. See Banca d'Italia (2017).
2. In other words, market neutrality in our hypothesis means that the national central bank is paying the same price for the bond as any other buyer. Moreover, the NCB does not use the nationality of the counterparty as a selective criterion during purchase.
3. Bruegel datasets – Sovereign Bond Holdings, URL: hiip://bruegel.org/publications/datasets/sovereign-bond-holdings/.

with the asset purchase programme's (APP) asset purchases, which have increased over time, and reflects the role of the Bundesbank as a *hub* towards non-euro-area countries. Our interpretation is in line with that of Lehment (2018), who extends the analysis also to the accounts of the Banque de France and of De Nederlandsche Bank.

The reduction of the Eurosystem's net external assets is a well-documented phenomenon and is commonly connected with the APP; see Kowalewski/Szadkowski (2017). According to these authors, 'the increase in "other liabilities" to "non-euro area residents denominated in euros" [the account we are considering] (around €121bn from end-2014 to the start of March 2017) accounts for the largest fall of NFAs [net financial assets].'

The mechanism that is at work here is explained in detail by Eisenschmidt et al. (2017: 26):

> By contrast, in the three countries with the largest TARGET claim positions (which coincide with those countries hosting gateway financial centres), the decline in banks' net external assets has not been driven by TARGET flows, … banks in gateway centres receive payments in TARGET2 from across the euro area and channel them to the rest of the world via other financial arrangements.

Moreover, in footnote 53, ibidem, they claim that

> [t]his [the other financial arrangements] may consist of bilateral agreements simply reflected in cross exposures on the balance sheets of the gateway bank and the non-euro area bank or may involve more sophisticated arrangements. Such arrangements may also include the involvement of a non-euro area central bank and the NCB of the country where the euro area gateway bank operates, e.g. via the use of swap lines. Whichever the arrangement, the settlement of the payment between the euro area gateway bank and the non-euro area bank will result in a change in the net external asset position of the banking system of the euro area country in which the gateway bank is operating. This change will be reflected in positions other than TARGET.

For what regards the 'other financial arrangements,' the Bundesbank[4] gives us an example by stating:

> Having a euro account at the Bundesbank allows international organisations, central banks and monetary authorities to participate in the European cross-border payment system TARGET2. The account is held on a credit balance basis and forms the basis for the other services which are offered. There is no need to maintain a given minimum credit balance. Accounts are remunerated as described under 'Account remuneration through automatic overnight deposits' and 'Fixed-term deposits.'

These accounts are managed by the Eurosystem Reserve Management Service (ERMS). To our knowledge, ERMS holdings are increasing[5] and are accounted for in the BP item 'Liabilities to non-euro-area residents denominated in euros.'[6]

4 TARGET2 BALANCES INCREASE AS A SIGNAL OF STRESS

The statement that the dynamics of TARGET2 balances are 'giving rise to the perception of a "capital flight"' (Terzi 2019: 166) is not our point of view and it is not suggested in

4. URL: hiips://www.bundesbank.de/en/service/reserve-management-service/reserve-management-service/reserve-management-service-756186.
5. URL: hiips://www.bde.es/f/webbde/INF/MenuVertical/BilletesYMonedas/ficheros/Annual_Report_ECB_2017.pdf.
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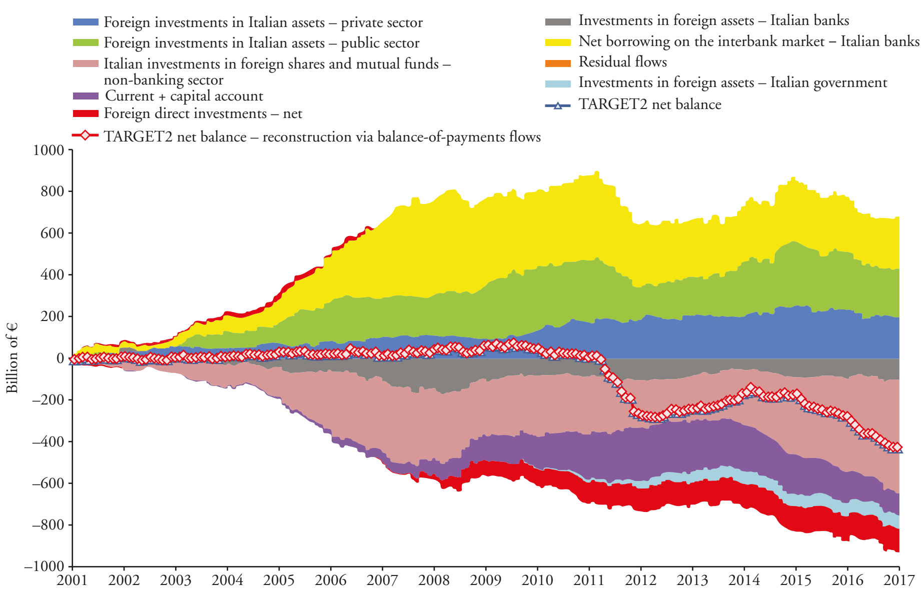
our work. We are clearly referring to the 'perception' of the general public, amplified by the media and different political parties across the euro area (EA). Our work never states that 'portfolio rebalancing' is 'capital flight.' However, we suspect the influence of other determinants that are different from the NCBs' purchases of securities from non-euro-area countries. This is in line with Baldo et al. (2017) and Alves et al. (2018: 8), who suggest that the persistent capital outflows from peripheral countries has to be framed 'in a context of differing yields on national debt, investors' risk aversion, and a domestic bias in banks' investment strategies.'

5 TARGET2 BALANCES BEFORE THE FINANCIAL CRISIS: BP RECONSTRUCTION FROM 2011 TO 2018

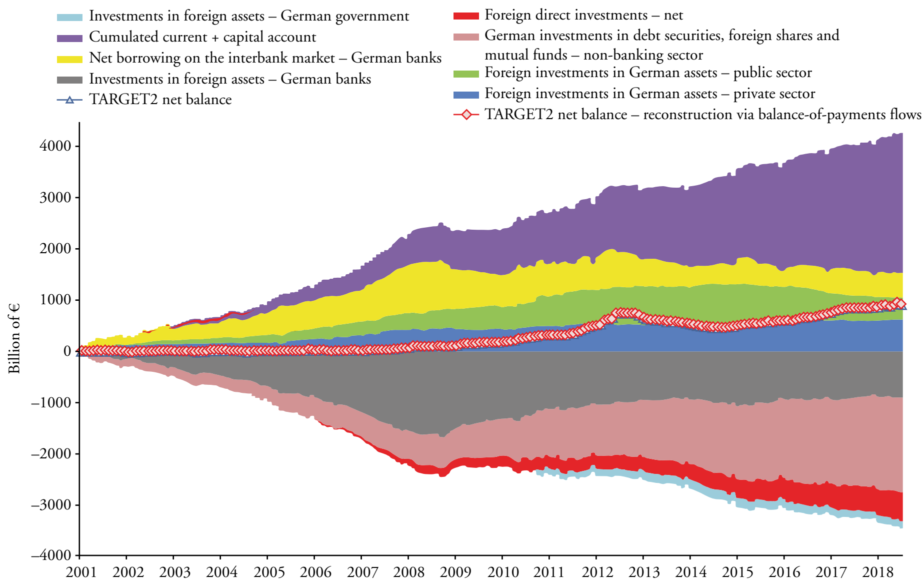
In the following, we briefly investigate by means of a long-term BP reconstruction for Italy and Germany, starting in 2001, how the BP capital flows have evolved and their relationship with the TARGET2 balance in the two different regimes of monetary policies (cited in Section 1): the first runs up to 2008, the second from the end of 2008 up to the end of the data sample. Figures 1 and 2 reveal a regime shift in 2007–2008 that can be identified without recourse to more complex econometric tools, which, as stated before, have well-identified limits when identities are involved.

For both countries, BP accounting identities show indeed that in the period 2001–2008 massive capital shifts between EA countries were happening without an appreciable impact on TARGET2 balances. Investments in foreign assets by the private sector (black and diagonally striped areas in Figures 1 and 2, mainly financial in Germany, non-financial in Italy) were compensated by a corresponding growth in the external



Source: Banca d'Italia.

Figure 1 Italy: TARGET2 balance and its BP reconstruction, 2001–2017



Source: Bundesbank.

Figure 2 Germany: TARGET2 balance and its BP reconstruction, 2001–2018

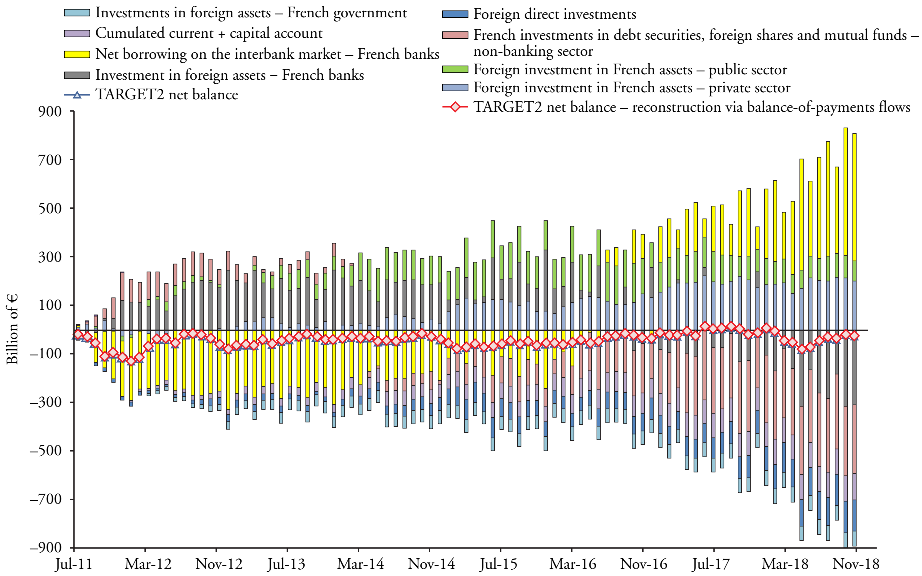
liabilities of banks (white areas). This exactly confirms the view of Terzi (2019: 163), who stated that

> [o]ver any given period, if the value of net payments made (or received) by the residents of one EA country … [t]his was the ordinary scenario before 2007 in the EA: a zero (or close to zero) [TARGET2] balance position for each NCB was consistent with any balance-of-payments position with the RoEA.

So the BP reconstruction conveys some valuable information after all!

After 2008, TARGET2 balances began to diverge, on the positive side for Germany and the negative side for Italy. A common phenomenon that is reflected in both reconstructions is the persistent deleveraging of the banking sector with a marked reduction of both assets and liabilities. These items never recovered their pre-crisis levels. This is coherent with the mutated configuration of monetary policy that reduced the weight of the interbank market for funding needs in favor of NCB liquidity, as pointed out correctly by Terzi. For Italy, the non-financial private sector was also reducing its foreign liabilities (until 2014). From 2014 the supply-side shock related to the monetary expansions of the ECB (the targeted long-term refinancing operation (T-LTRO) and the APP) is connected with the recovery of Italy's non-private-sector foreign investments abroad. For Germany, one cannot ignore the acceleration transferred to the growth of the cumulated current-account surplus by the APP and by the consequent euro devaluation, not completely matched by the outflows of private funds from the non-financial sector, which corresponds (in an accounting perspective) to the increase in TARGET2 balances.

To conclude, we want to present a BP reconstruction for France. This is a useful example to show that the different monetary configuration that has characterized EA countries after 2008 is indeed, using the words of Terzi (2019: 163, fn 5) 'a necessary (but not sufficient)



Source: Banque de France.

Figure 3 France: TARGET2 balance and its BP reconstruction, 2011–2018

condition' for the increase of TARGET2 balances. France's TARGET2 balance has remained stationary across the years, even after the take-off of the APP in 2015. We think that the BP reconstruction could help to explain, at least partially, the reasons for this. Interbank credit has a strong role in French BP (cf. Figure 3). This can be attributable to the large size of the French banking system. During the 2011–2012 crisis, foreign credit to French banks experienced a significant contraction, compensated by a corresponding reduction in the foreign assets of French banks. In the following years, both significantly recovered. These inflows of capital greatly reduced the banks' use of NBC liquidity for funding needs. Capital reallocation towards foreign investments also characterizes the French economy in a similar way, as observed for Italy, Spain and Germany (diagonally striped bars). It seems however that the French TARGET2 balance has remained basically stationary due to the *releveraging* of the banking sector and the capacity of the French non-financial private sector to attract investment flows towards the French economy. Again, this capacity has to be understood 'in a context of differing yields on national debt, investors' risk aversion, and a domestic bias in banks' investment strategies' (Alves et al. 2018: 8).

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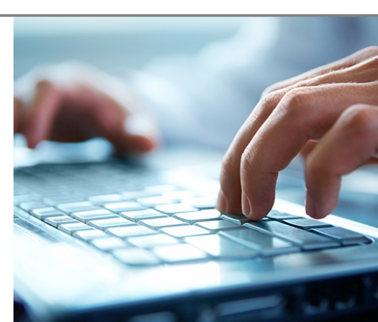

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