

# Boxes

## 1 The ECB's asset purchase programme and TARGET balances: monetary policy implementation and beyond

**This box analyses the increase in TARGET balances since the start of the asset purchase programme (APP) and explains why the current dynamics differ from those observed during previous episodes of rising balances.<sup>2</sup>**

TARGET balances are the claims and liabilities of euro area national central banks (NCBs) vis-à-vis the ECB that result from cross-border payments settled in central bank money.<sup>3</sup> Net payment inflows into a country increase the TARGET claim (or reduce the TARGET liability) of its NCB while net payment outflows have the opposite effect. The total TARGET balance, which is the sum of all positive balances, is only affected when central bank money flows between countries with positive and negative balances.<sup>4</sup> Cross-border flows of central bank money, as reflected in changes in TARGET balances, are recorded in the balance of payments of euro area countries.<sup>5</sup> According to balance of payments accounting, these flows must be mirrored in other components of the balance of payments, such as the current account or portfolio investment flows.

**Sizeable TARGET balances can be a consequence of the injection of large amounts of excess liquidity by the euro area's decentralised central banking system.** TARGET balances emerge when the central bank reserves created in one jurisdiction flow to another. During the sovereign debt crisis, there was a *demand-driven* increase in excess liquidity as banks substituted Eurosystem funding for market-based funding that had dried up. Although the initial provision of liquidity via refinancing operations was TARGET-neutral,<sup>6</sup> TARGET balances increased as this liquidity subsequently flowed from vulnerable to less-vulnerable countries in the context of severe market stress.<sup>7</sup> Since the start of the expanded APP, however, the

<sup>2</sup> "TARGET" stands for "Trans-European Automated Real-time Gross settlement Express Transfer system". In May 2008, TARGET2 fully replaced the former TARGET system as the real-time gross settlement system owned and operated by the Eurosystem. In the interests of readability, the term "TARGET balances" is used here to describe the balances accumulated in TARGET and TARGET2.

<sup>3</sup> In addition, the ECB and the NCBs of five non-euro area Member States that participate in TARGET2 (Bulgaria, Croatia, Denmark, Poland and Romania) also have TARGET balances.

<sup>4</sup> The total TARGET balance increases if, on a net basis, central bank money flows from a country with a liability to a country with a claim, and it decreases if that money flows in the opposite direction. By contrast, flows between two countries with claims (or two countries with liabilities) change the composition, but not the size, of the total TARGET balance.

<sup>5</sup> If a euro area country sends more funds abroad via TARGET than it receives, this will be offset by an equally-sized liability of the country's NCB vis-à-vis the ECB in the financial account of the balance of payments under the item "other investment of the national central bank".

<sup>6</sup> Monetary financial institutions (MFIs) can only participate in refinancing operations through their NCB. The liquidity is allotted to the participating MFI via a credit to its current account held at the NCB. The implementation of refinancing operations entails no cross-border payments and is therefore TARGET-neutral.

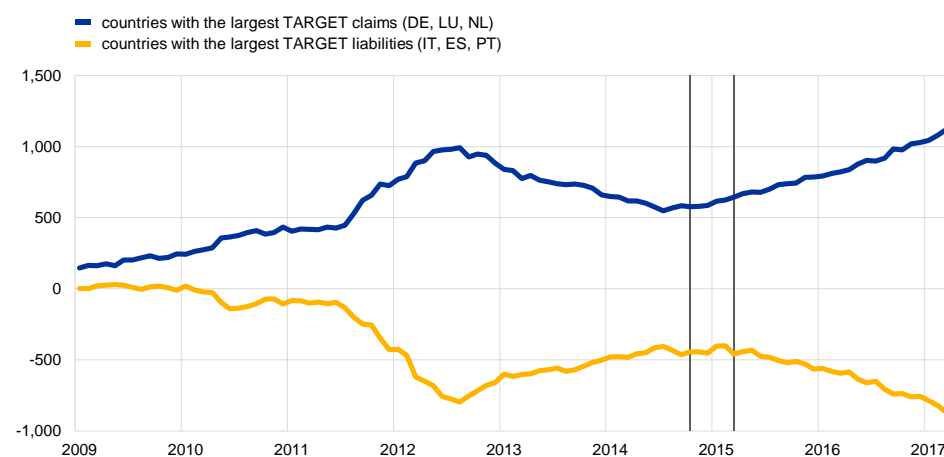
<sup>7</sup> Under the fixed-rate, full allotment tender procedure, demand for Eurosystem refinancing was fully accommodated subject to collateral availability, which allowed significant growth in excess liquidity. For further discussion, see the article entitled "TARGET balances and monetary policy operations", *Monthly Bulletin*, ECB, May 2013.

renewed increase in excess liquidity has been predominantly *supply-driven*, resulting from asset purchases by NCBs and the ECB rather than stress-related recourse to refinancing operations.<sup>8</sup> The APP – and in particular the public sector purchase programme (PSPP) – gives rise to increasing TARGET balances (see Chart A) by inducing large cross-border liquidity flows. These flows arise (i) during APP implementation and (ii) via further portfolio rebalancing.

### Chart A

#### Sum of TARGET balances for the three NCBs with the largest claims and the three with the largest liabilities

(EUR billions; end-of-month data)



Source: ECB.

Notes: The three countries with the largest TARGET claims at the end of March 2017 were Germany, Luxembourg and the Netherlands, while the three with the largest TARGET liabilities were Italy, Spain and Portugal (although the ECB's liability is actually greater than that of Portugal). The vertical black lines mark the commencement of purchases under the APP and the PSPP in October 2014 and March 2015, respectively. The latest data are for March 2017.

**The financial structure of the euro area contributes to the current increase in TARGET balances because cross-border payments are an inherent feature of decentralised APP implementation in an integrated market.** APP implementation is distinct from that of refinancing operations because it can entail immediate cross-border payments, as purchases are not limited by national borders. In fact, around 80% of APP purchases by volume have involved non-domestic counterparties, while around 50% have involved counterparties resident outside the euro area, many of which are concentrated in the United Kingdom.<sup>9</sup> The latter have historically accessed TARGET2 via major euro area financial centres, particularly Germany and, to a

<sup>8</sup> Around 85% of the increase in liquidity provided through euro-denominated open market operations between the end of February 2015 (i.e. prior to the commencement of the PSPP) and 31 March 2017 was due to the APP. All of the increase in recourse to Eurosystem refinancing operations over the same period reflects participation in targeted longer-term refinancing operations (TLTROs). Participation in TLTROs should not be interpreted as a sign of stress-related recourse to Eurosystem refinancing, as the very attractive pricing of these operations was a key motive for participation (see, for example, the January 2017 euro area bank lending survey).

<sup>9</sup> In this context, “non-domestic” refers to a counterparty located in a country which is different from that of the purchasing NCB. This includes counterparties located in other euro area countries. Counterparties may not necessarily be the legal owner of the security; they may be acting as intermediaries, holding securities and managing transactions on behalf of the owners.

lesser extent, the Netherlands.<sup>10</sup> The main financial centres in the euro area have always been located in countries which, during the sovereign debt crisis, came to be viewed as less vulnerable.<sup>11</sup> The settlement of APP transactions is therefore associated with structural cross-border flows to these locations.<sup>12</sup>

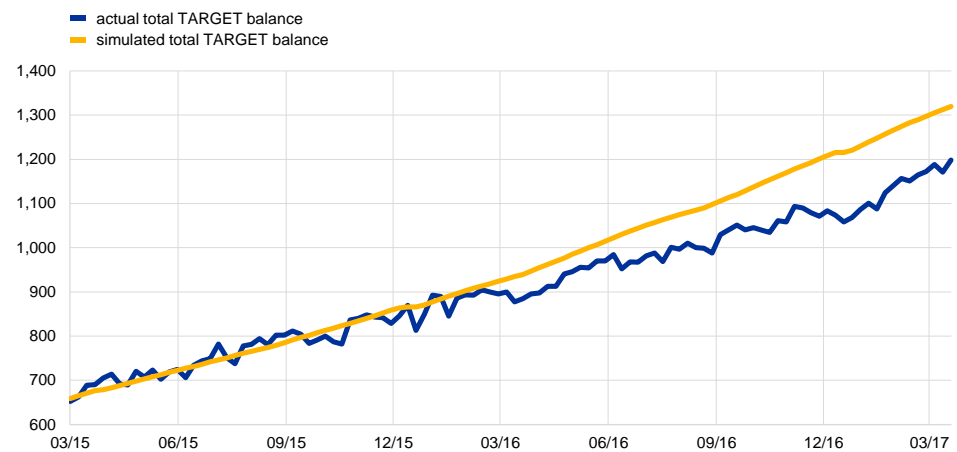
**The rise in the total TARGET balance has followed the upward path implied by cross-border payments for APP transactions, suggesting that other financial flows did not further increase the balance after the implementation of the APP.**

Chart B shows how the total TARGET balance has actually evolved alongside a simulated balance illustrating how it would have evolved if the only cross-border payments in the system had been those stemming from APP implementation.<sup>13</sup> The actual balance is currently below the simulated balance, indicating that subsequent cross-border liquidity flows are not giving rise to additional increases in the total TARGET balance; it instead suggests that there are some net cross-border liquidity flows back to countries with TARGET liabilities from those with claims.

**Chart B**

**Total TARGET balance since the launch of the PSPP and a simulated balance**

(EUR billions; weekly data)



Sources: ECB, TARGET2 and ECB staff calculations.

Notes: The simulated TARGET balance is calculated using APP transaction data and information on the location of the TARGET accounts of APP counterparties (the ECB's balance is treated separately from balances of non-euro area countries). The simulated balance shows how the total TARGET balance would have evolved since March 2015 if the only cross-border payments in the system had been the liquidity flows from central banks to counterparties' TARGET2 accounts resulting from APP purchases. The latest data are for March 2017.

<sup>10</sup> The locations used by non-euro area banks for participation in TARGET2 are the result of free choice. Banks located in the European Economic Area (EEA) that are eligible to become direct participants in TARGET2 can choose the NCB with which they want to open a TARGET2 account, while other non-euro area banks choose correspondent banks for accessing TARGET2, typically reflecting historical relationships. The locations have remained largely unchanged since TARGET2 went live in 2007/08.

<sup>11</sup> Evidence from the original TARGET payment system indicates that Germany and the United Kingdom were major financial centres well before the onset of the global financial crisis (see Cabral, I., Dierick, F. and Vesala, J., "Banking integration in the euro area", *Occasional Paper Series*, No 6, ECB, 2002). This is still the case, but the United Kingdom is not a direct participant in TARGET2; Germany is the main location through which UK-based banks access TARGET2, reinforcing Germany's role as a major financial centre.

<sup>12</sup> For more details on how the implementation of the APP affects TARGET balances, see the box entitled "TARGET balances and the asset purchase programme", *Economic Bulletin*, Issue 7, ECB, 2016.

<sup>13</sup> The simulation is based on transaction-level data and maps the payments from purchasing central banks to the TARGET account used by the selling counterparties.

**Payments related to subsequent portfolio rebalancing are also affected by the financial structure and keep TARGET balances elevated.** Since the launch of the APP, there has been a broad-based rebalancing towards non-euro area debt securities in the euro area as a whole which has been driven to a significant extent by the persistently negative interest rate differentials between euro area bonds and bonds issued by other advanced economies.<sup>14</sup> Euro area residents' net purchases of non-euro area debt securities in this period have consisted almost exclusively of debt securities issued by other advanced economies, in particular the United States. Such international portfolio rebalancing usually takes place through actors located in major euro area financial centres, thereby contributing to the accumulation of reserves in particular locations and to the persistence of TARGET balances.<sup>15</sup> This mechanism is evident in the net external assets of a country's MFIs, which mirror the transactions of the non-banking sector with the rest of the world (see Chart C) and the way in which the associated payment flows are channelled (see Chart D).<sup>16</sup> A breakdown of MFIs' net external assets for the largest TARGET-liability countries shows that the payment flows associated with international portfolio rebalancing are mainly channelled via TARGET.<sup>17</sup>

---

<sup>14</sup> See the box entitled "Analysing euro area net portfolio investment outflows", *Economic Bulletin*, Issue 2, ECB, 2017.

<sup>15</sup> With respect to equity investment, country-level data for the largest euro area economies point to substantial intra-euro area cross-border flows into investment funds concentrated in major euro area financial centres, most notably Luxembourg.

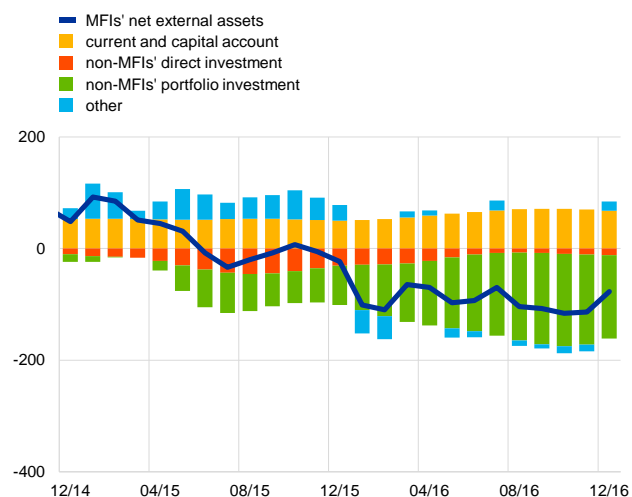
<sup>16</sup> For further details on the monetary presentation of the balance of payments, see Bê Duc, L., Mayerlen, F. and Sola, P., "The monetary presentation of the euro area balance of payments", *Occasional Paper Series*, No 96, ECB, 2008.

<sup>17</sup> Evidence indicates that this is the case regardless of whether the recipient of the payment is a euro area resident. According to the ECB's Securities Holdings Statistics (SHS), in the APP period, around half of the increase in net purchases of foreign debt securities by residents in the three countries which currently have the largest TARGET liability positions (i.e. Italy, Spain and Portugal) occurred vis-à-vis non-euro area residents.

## Chart C

### Monetary presentation of the balance of payments for the countries with the largest TARGET liabilities

(EUR billions; 12-month flows)



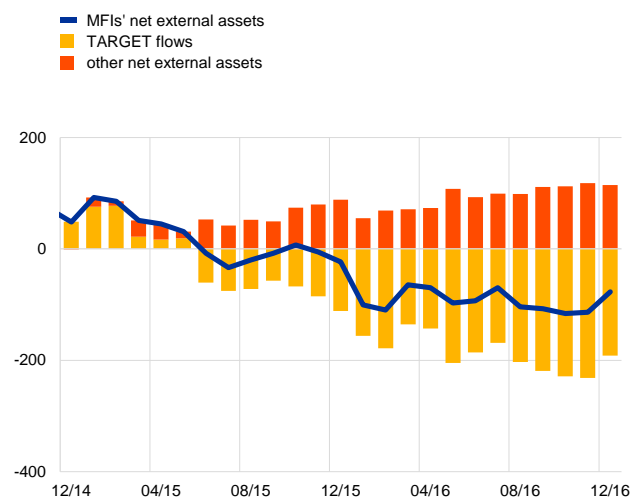
Source: ECB staff calculations.

Notes: Aggregate of the three countries with the largest TARGET liabilities: Italy, Spain and Portugal. Country-level MFIs' net external assets consist of MFIs' positions vis-à-vis non-euro area residents, and those vis-à-vis residents in other euro area countries (the latter include inter-NCB positions, mainly reflecting TARGET balances). TARGET flows reflect the 12-month difference in a country's TARGET liabilities. Sectoral balance-of-payments data are interpolated from quarterly data. The latest data are for December 2016.

## Chart D

### MFIs' net external assets in the countries with the largest TARGET liabilities – breakdown by intermediation channel

(EUR billions; 12-month flows)



Source: ECB staff calculations.

Notes: Aggregate of the three countries with the largest TARGET liabilities: Italy, Spain and Portugal. Country-level MFIs' net external assets consist of MFIs' positions vis-à-vis non-euro area residents, and those vis-à-vis residents in other euro area countries (the latter include inter-NCB positions, mainly reflecting TARGET balances). TARGET flows reflect the 12-month difference in a country's TARGET liabilities. Sectoral balance-of-payments data are interpolated from quarterly data. The latest data are for December 2016.

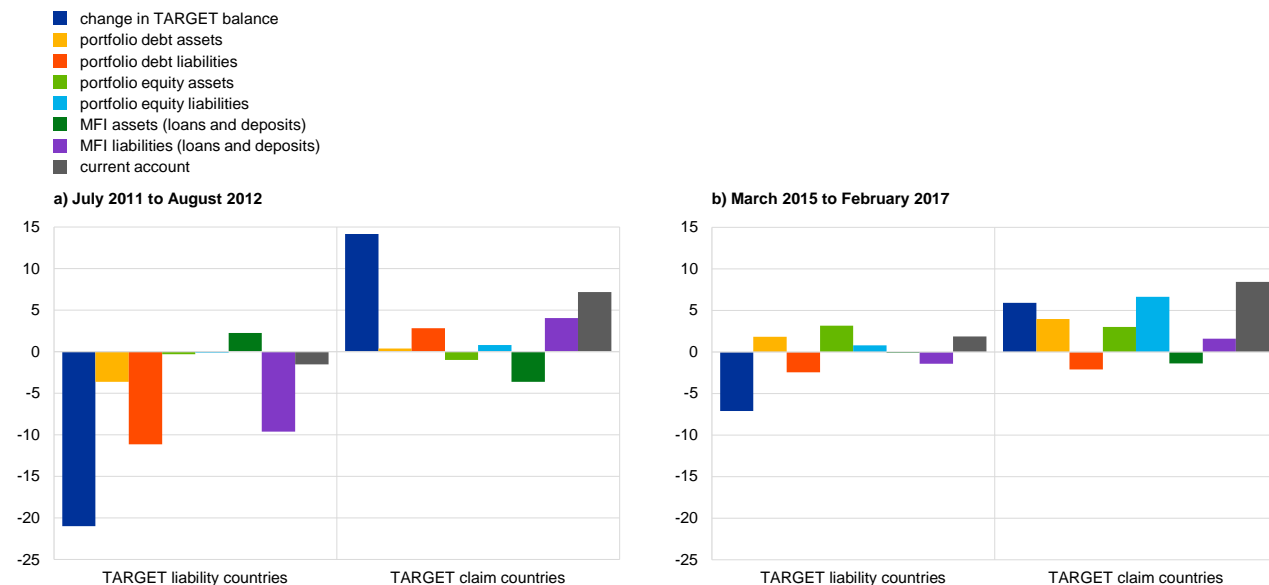
**Since the launch of the PSPP, developments in the balance of payments of the euro area countries with the largest TARGET claims and those with the largest TARGET liabilities have differed markedly from the developments observed during the sovereign debt crisis and have followed broadly similar patterns in both groups.** In the period from mid-2011 to mid-2012, TARGET-liability countries experienced a sudden stop in foreign inflows to domestic MFIs and bond markets (see Chart Ea). At the same time, domestic residents reduced their holdings of foreign securities to repatriate liquidity, while domestic MFIs shifted funds into foreign deposits. Moreover, TARGET-liability countries were running a combined current account deficit. Correspondingly, TARGET-claim countries received foreign inflows to domestic MFIs and securities, while recording a surplus in the current account. Since the start of the PSPP, foreign investors have reduced their exposure to debt securities in TARGET-liability countries, albeit on a markedly smaller scale than during the sovereign debt crisis, and in a similar fashion as in TARGET-claim countries (see Chart Eb). Moreover, residents from both country groups have rebalanced towards foreign debt and equity securities, while recording inflows into domestic equities.<sup>18</sup> Following the external adjustment process in TARGET-liability countries over recent years, the current account has registered a surplus since the start of the PSPP, as has continued to be the case in TARGET-claim countries.

<sup>18</sup> Cross-border banking flows have been relatively subdued since the launch of the APP, with MFIs in both country groups slightly reducing their foreign assets in terms of loans and deposits. In TARGET liability countries, MFIs recorded a reduction in cross-border banking liabilities, while these increased somewhat in TARGET claim countries.

## Chart E

### Changes in TARGET balances and selected balance of payments developments

(percentages of GDP; cumulated monthly flows)



Sources: ECB and ECB staff calculations.

Notes: TARGET claim countries include Germany, Luxembourg and the Netherlands. TARGET liability countries include Italy, Spain and Portugal. For assets, a positive (negative) value indicates net purchases (sales) of foreign assets by domestic residents. For liabilities, a positive (negative) number indicates net purchases (sales) of domestic assets by foreign residents. GDP is converted to monthly frequency.

**Overall, the underlying factors driving the current increase in TARGET balances are of an intrinsically different nature to those in previous episodes of rising balances.** The increase in TARGET balances in the period from mid-2011 to mid-2012 was triggered by a replacement of private sector funding of banks by central bank funding in a period of stressed bank funding conditions, as also evidenced by a range of financial market, banking and balance of payments statistics.<sup>19</sup> By contrast, the current increase in TARGET balances is largely attributable to the interplay between the decentralised implementation of the APP and the financial structure of the euro area.

<sup>19</sup> See the box entitled "What is driving the renewed increase in TARGET2 balances?", *Quarterly Review*, BIS, March 2017.