

Why the European Union's pandemic-related fiscal measures are curbing TARGET2 balances

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Abstract

The development of TARGET2 balances depends on cross-border payment flows in central bank money within the decentralised structure of the Eurosystem. They reflect developments in the financial markets and in the implementation of monetary policy. The course they have taken over the past 20 years can be divided into different phases. While the balances were at times an indicator of tensions in the European financial system, their most recent upward trend has been driven mainly by the Eurosystem's asset purchase programmes. On its own, this driver would tend to lead to further growth in balances in 2022. However, the European Union's pandemic-related fiscal policy measures, which are jointly financed through the issuance of bonds, are likely to be having the opposite effect. The impact of these measures on TARGET2 balances depends largely on the origin of the bond investors and the amounts disbursed to the Member States. Taken in isolation, Germany's TARGET2 balance could fall due to the countervailing effect of the joint fiscal measures and the expiring pandemic-related purchase programmes. However, the development of TARGET2 balances hinges on a number of additional factors, which means that uncertainty is high in this regard.

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How TARGET2 balances arise

TARGET2² balances are the result of cross-border transactions in TARGET2 – the Eurosystem’s real-time gross settlement system. The platform, which is jointly operated by the Eurosystem, processes national and cross-border payments in euro. Both commercial banks and central banks use TARGET2 to settle their payments in central bank money. These transactions can take a wide variety of forms – such as securities transactions, interbank and customer payments as well as transactions by and involving ancillary systems³ – and are initiated by credit institutions themselves or on behalf of their customers. Around 1,000 direct participants are connected to TARGET2, roughly one-quarter of which hold their account with the Bundesbank.⁴ On average, 345,000 payments with an average total value of €1.8 trillion are settled each business day. The Bundesbank’s TARGET2 component accounts for around 40% of the turnover.

While TARGET2 is technically an integrated platform, legally it is a network of independent systems (components). TARGET2 balances arise when central bank money is created in one country – as a result of monetary policy refinancing operations, for example – and transferred to another via TARGET2. The Eurosystem’s decentralised structure initially causes bilateral claims and liabilities to build up between the national central banks due to cross-border transactions. These claims and liabilities are transferred to the ECB by the national central banks (novation), where they are netted.⁵ Thus, a single liability to, or claim on, the ECB is created for each participating central bank at the end of a day. Disregarding banknote circulation,⁶ foreign currency holdings and other positions, the following simplified relationship exists: a country’s TARGET2 balance corresponds to the credit institutions’ account balance held at the national central bank minus the liquidity created through monetary policy operations. Balances are thus the result of a mismatch on the balance sheet between money holding and money creation.

A positive TARGET2 balance implies that central bank money flowed into the country in question; accordingly, a negative balance means there was an outflow of liquidity. For instance, a Bundesbank TARGET2 claim appears as a balancing item on the balance sheet if participants connected via the Banque de France transfer central bank money through TARGET2 to banks connected via the Bundesbank. However, the claim debtor is not the Banque de France, but the

² TARGET2 stands for the second generation of the Trans-European Automated Real-time Gross Settlement Express Transfer System.

³ Ancillary systems can settle transactions in central bank money directly in TARGET2. Ancillary systems include, for example, securities settlement, large-value and retail payment systems.

⁴ As a general rule, only banks and ancillary systems established in the European Economic Area (EEA) can participate directly in TARGET2. In 2020, a total of 575 indirect participants established in the EEA and a further 4,253 correspondent banks worldwide were able to settle their payments using TARGET2 via direct participants. If branches and subsidiaries of direct and indirect participants are taken into account, 44,165 institutions overall could be reached via TARGET2 as at the end of 2020 (see European Central Bank 2020).

⁵ Article 6(2) of the Guideline of the European Central Bank of 5 December 2012 on a Trans-European Automated Real-time Gross settlement Express Transfer system (TARGET2) (recast) (ECB/2012/27).

⁶ TARGET2 balances are just one component of intra-Eurosystem balances. The “net claims or liabilities related to the allocation of euro banknotes within the Eurosystem” reported in the central bank’s balance sheet are also significant in quantitative terms. If more central bank money is issued in a country than the share allocated to it in accordance with the banknote allocation key, this results in a liability to the Eurosystem. As at the end of 2020, the Bundesbank recorded a total of €473 billion in such liabilities.

ECB. Correspondingly, the payment flows presented in the example result in a liability to the ECB for the Banque de France. As at 31 December 2021, the Bundesbank's TARGET2 claims amounted to €1,260.7 billion.

The ECB operates its own component in TARGET2. However, the ECB does not maintain accounts for credit institutions, but rather largely for financial market infrastructures. In addition, other central banks, international and supranational organisations – such as the European Commission – can hold accounts with the ECB.

Developments in the Eurosystem

The development of TARGET2 balances may be interpreted as mirroring developments in the financial markets (see Deutsche Bundesbank 2017). In this context, different determinants can be identified that can be used to divide the evolution of the balances into phases. Between the introduction of TARGET⁷ and the outbreak of the financial crisis in 2007, there were hardly any balances that were significant in quantitative terms, as cross-border transactions were usually offset by money market transactions in the interbank market. The Bundesbank's TARGET2 claims increased notably for the first time during the financial crisis and the subsequent sovereign debt crisis (see Figure 1). Cross-border interbank money market trading declined considerably. Virtually no liquidity flowed across borders to banks in crisis countries, in particular. At the same time, banks domiciled in Germany recorded liquidity inflows from abroad (safe-haven inflows). The development of TARGET2 balances during this period primarily reflected the uncertainty within the European banking and financial system and could be interpreted as a “sentiment barometer”. Amid the announcement of the Eurosystem's Outright Monetary Transactions (OMT) programme and the commitment made by Mario Draghi, ECB President at the time, to use all available resources to preserve the euro, financing conditions eased from mid-2012. TARGET2 balances and, in particular, German TARGET2 claims decreased markedly during this phase.

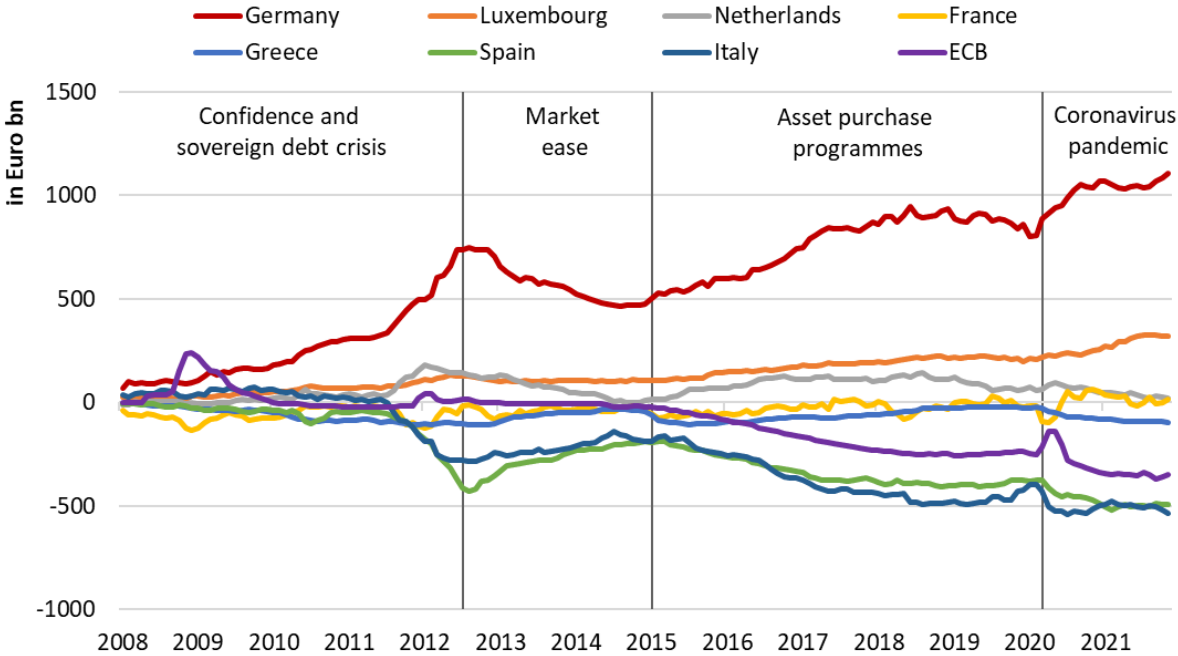
The expansion of the Eurosystem's asset purchase programme⁸ (APP) has seen TARGET2 balances grow continually since 2015. Furthermore, the Eurosystem adopted an additional purchase programme in response to the coronavirus pandemic – the pandemic emergency purchase programme (PEPP) – with a total envelope of €1.85 trillion, which is also causing TARGET2 balances to increase. Growing balances are chiefly attributable to the operational implementation of the purchase programmes, which leads to cross-border transactions in the Eurosystem. Securities purchases for monetary policy purposes and open market operations differ in terms of their operational settlement. In the case of open market operations between a national central bank and its connected credit institutions, liquidity is credited to domestic accounts held by the credit institutions. By contrast, securities purchases are also made across borders. Under the APP and the PEPP, Eurosystem central banks buy securities not only from

⁷ TARGET began operating on 4 January 1999 and was replaced by TARGET2 on 19 May 2008.

⁸ On 22 January 2015, the ECB announced the launch of an expanded asset purchase programme (APP). The APP broadened the ECB's purchases to include bonds issued by euro area central governments, agencies and European institutions (i.e. the public sector purchase programme, or PSPP). This expanded programme encompasses the purchase programme for asset-backed securities (ABSPP) and the purchase programme for covered bonds (CBPP3), which had already been launched at the end of 2014. As at the end of November 2021, securities holdings under the APP stood at around €3.1 trillion.

domestic banks, but also from banks in other euro area countries and, to a large extent, from banks outside the euro area that are connected to TARGET2 via branches in the European Economic Area (EEA). Under certain conditions, credit institutions can choose the euro area Member State via which they participate in TARGET2. Many credit institutions domiciled outside the EEA settle their payments by accessing TARGET2 via the Bundesbank for historical and institutional reasons, which also has an impact on Germany's TARGET2 balance. If a Eurosystem central bank other than the Bundesbank buys a security from such a credit institution, this leads to an inflow of central bank money to Germany and consequently causes a rise in the Bundesbank's TARGET2 claims. By contrast, there is an outflow of liquidity for the purchasing central bank, meaning its TARGET2 balance decreases.

Figure 1: Development of selected TARGET2 balances



The ECB has its own component system in TARGET2. Based on monthly averages up to the end of November 2021. Source: ECB; authors' calculations

The effect of a cross-border securities purchase on the relevant TARGET2 balance depends on whether the purchasing central bank exhibits TARGET2 claims or liabilities and where the counterparty holds its account. Purchases of German government bonds make up around one-quarter of the purchases; however, roughly half of all Eurosystem purchases are made from credit institutions established outside the euro area (see Eisenschmidt et al. 2017). These are primarily banks located in the City of London, most of which participate in TARGET2 via the Bundesbank.

The ECB constitutes a special case as it does not hold accounts for credit institutions, but sends and receives transactions as part of the implementation of monetary policy. Consequently, the

ECB's asset purchases lead to an increase in its TARGET2 liabilities since counterparties have to hold their account in another TARGET2 component.

In summary, the development of TARGET2 balances depends on cross-border liquidity flows in the Eurosystem, the net effect of which is strongly influenced by financing conditions on the money and capital markets as well as the implementation of Eurosystem monetary policy (see Bettendorf and Jochem 2021). As long as the Eurosystem continues its net asset purchases, there should – all other things being equal and without the European Union's pandemic-related fiscal measures – be further growth in TARGET2 balances and, in particular, an increase in the Bundesbank's TARGET2 claims.

The European Union's pandemic-related fiscal measures

During the coronavirus pandemic, the European Union launched the Support to mitigate Unemployment Risks in an Emergency (SURE) and NextGenerationEU (NGEU) fiscal programmes in order to repair the immediate economic and social damage. The programmes are financed by the European Commission on behalf of the European Union jointly via the capital market.

As the European Commission has a good credit rating, it can raise funds at favourable terms and pass these on to the Member States in the form of grants and loans. NGEU foresees a total of €750 billion (in 2018 market prices) being made available to Member States between 2021 and 2026 for the purpose of economic recovery following the coronavirus pandemic. The amount is divided into €360 billion in loans and €390 billion in grants (see European Commission 2020). The latter are likely to be taken up in full by the Member States. Grants to a Member State are based on its population size, per-capita gross domestic product and unemployment rate over the last five years. By contrast, the loans on offer are likely to be taken up only by those Member States that would have to raise funds on the capital market at more unfavourable terms. This limited uptake can already be observed in the SURE programme, under which only 19 Member States have taken out loans to date. According to Council Regulation (EU) 2020/672 of 19 May 2020 on SURE, the programme is intended to provide jointly secured financing for national measures designed to achieve a high employment rate across all Member States (similar to short-time working benefits). To achieve this goal, the European Commission is borrowing up to €100 billion on the capital market and disbursing the funds obtained to the Member States in the form of loans.

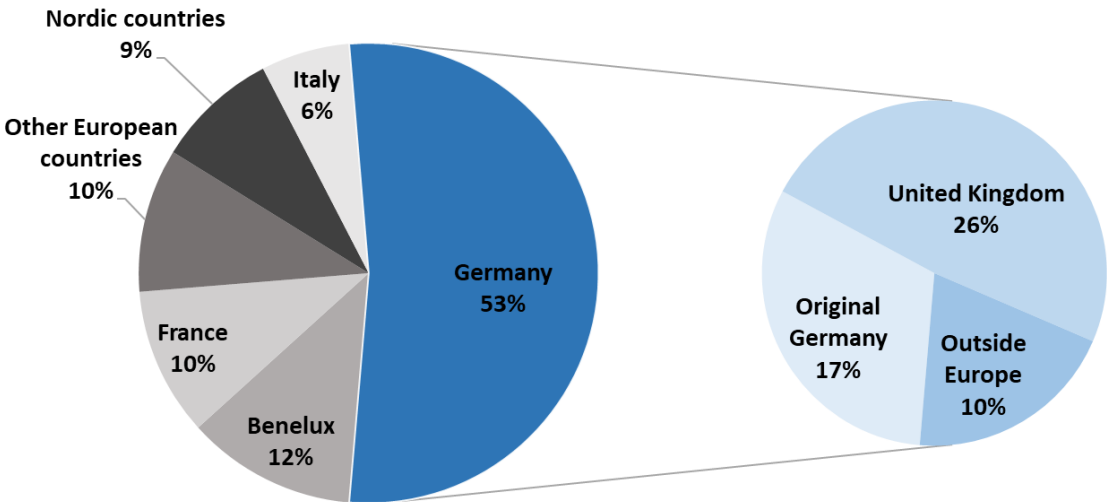
Source of funds

The main way in which the European Commission covers the financing requirements of both the SURE and NGEU programmes is by issuing long-term bonds (EU bonds). Under SURE, bonds worth €89.6 billion have been issued so far, with maturities between 2025 and 2051 (see European Commission 2021a). The long-term bonds for funding NGEU should reach maturity between 2026 and 2058. Of the total financing requirements for this programme, €71 billion has so far been raised via the issuance of long-term bonds. In order to intertemporally smooth the NGEU programme's financing requirements and maturity profile, short-term bonds (EU bills) with maturities of between three and six months are also being issued under NGEU. By the end of

November 2021, a total of €22 billion in short-term bonds had been issued. Funding plans are published mapping out borrowing in the next six months (see European Commission 2021b).

The European Commission also publishes data on the origin of those investors who buy long-term bonds. This does not, however, make it possible to definitively identify the country through which they are connected to TARGET2. As with Eurosystem securities purchases, transactions involving international investors are therefore probably settled via the German TARGET2 component. Under this assumption, investors in long-term bonds whose transactions are settled via the Bundesbank have a share of 53% in the context of NGEU and SURE. The distribution of investors in the bonds issued up to this point – based on these considerations – is shown in Figure 2.

Figure 2: Assumed allocation and investor profile for debt issuance under SURE and NGEU



Sources: European Commission, authors' calculations.

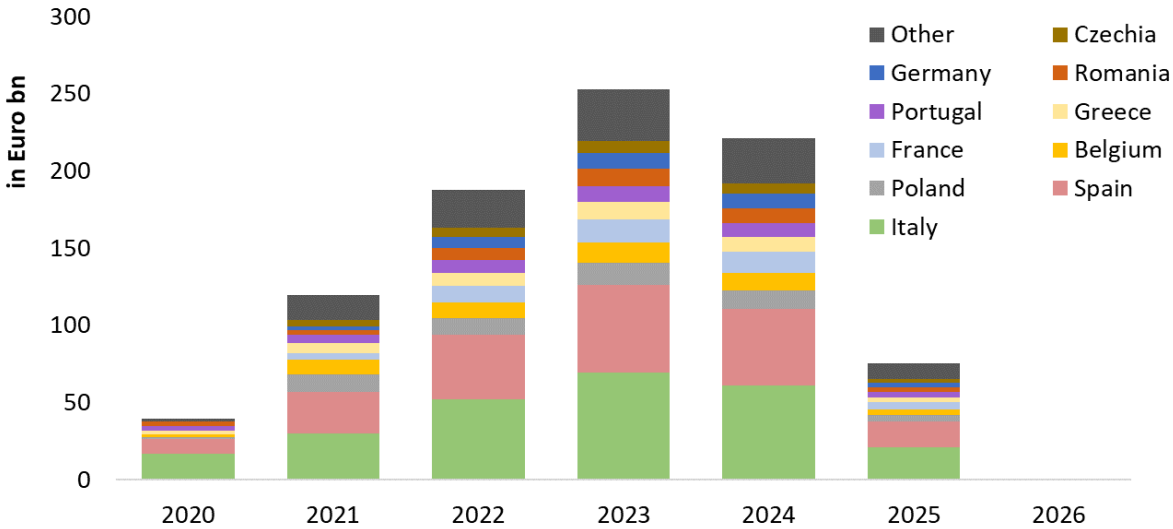
Use of funds

Thus far, €89.6 billion has been loaned to 19 EU Member States under the SURE programme. Italy has received the largest share, at 30.6%, followed by Spain, at 23.8%. In each case, the raising and disbursement of the funds took place on the same business day.

In 2021, the European Commission issued long-term bonds to finance NGEU to the tune of €71 billion. Given that the programme was set up as a crisis response measure, the relevant disbursements should take place as early as possible. However, for the purposes of certain sub-programmes, Member States are required to first submit their plans for the funds to the European Commission for approval. As loans can be applied for up until August 2023, there is thus far no final overview of the planned disbursements. The first plans submitted indicate that funds are more likely to be requested for the first half of the disbursement window (see Bruegel 2021; Darvas 2020). Furthermore, it can be assumed that while all grants will be taken up in their entirety, only those Member States that also applied for SURE assistance will apply for loans.

The remaining countries are probably able to raise funds at more favourable terms on the capital market, making an application for a loan under NGEU unlikely. Each Member State is permitted to borrow a maximum of 6.8% of its gross national income for 2019. This results in an assumed total value of SURE and NGEU loans and grants of €895.7 billion (at current market prices) and a disbursement profile as shown in Figure 3.

Figure 3: Estimated disbursement profiles for SURE and NGEU



Sources: Bruegel (2021), Darvas (2020), European Commission, authors' calculations.

Effect on development of TARGET2 balances

Borrowing by the European Commission and subsequent disbursement to the Member States leads to a cross-border redistribution of liquidity via TARGET2. This is reflected in immediate changes to TARGET2 balances on the reporting dates on which the funds are raised and disbursed. The size of the net effect of the above depends on the origin of the funds raised by the European Commission and how disbursements are distributed.⁹ The effect is strictly temporary, as equivalent offsetting developments are to be expected once the bonds mature.¹⁰ The effect on TARGET2 balances depends, then, on the value of a country's TARGET2 balance, the sources of funds for bond redemption, and the account connection of the bond holder.

Considering the assumed source of funds under SURE, the proportion of investors from Member States with TARGET2 claims is estimated at 80%. At the same time, the proportion of disbursements to Member States with TARGET2 liabilities is around 76%. Uncertainties surrounding the recipient side arise regarding countries whose TARGET2 balance sign changes or that do not participate in TARGET2. All in all, it seems plausible that total TARGET2 claims or

⁹ Funds are also disbursed to Member States that do not participate in TARGET2. Disbursements to these countries are, however, relatively small.

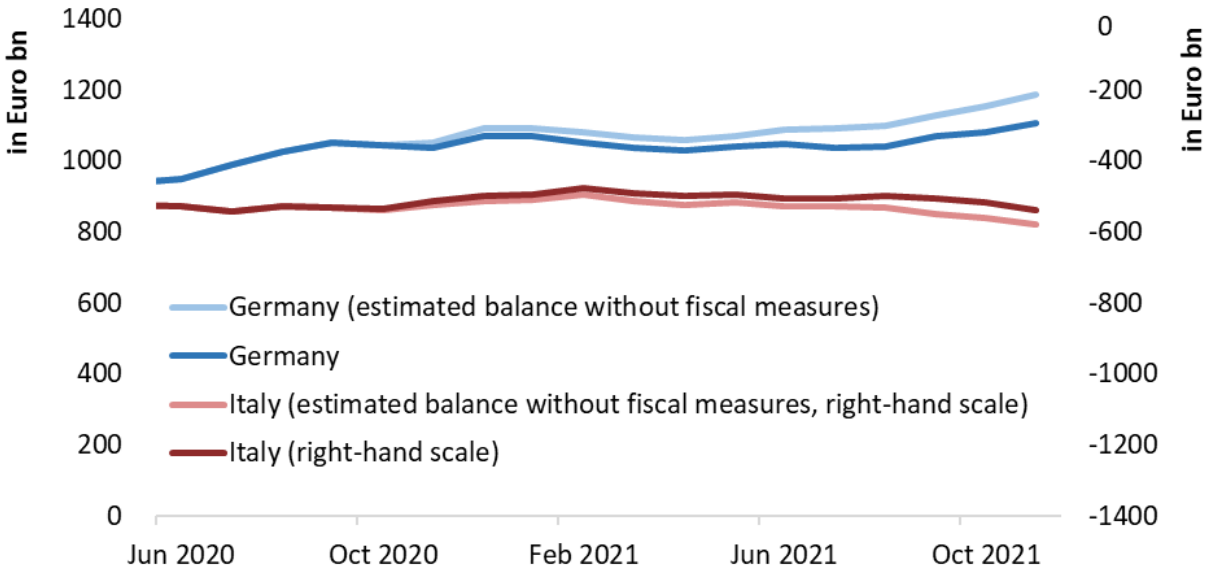
¹⁰ Coupon payments on bonds and interest payments on loans also have an effect on the development of TARGET2 balances. This effect is nevertheless likely to be comparatively small and is thus not considered further.

liabilities would decrease by 56% of the disbursement amount under SURE (total TARGET2 claims: 80% decreasing and 24% increasing; total TARGET2 liabilities: 76% decreasing and 20% increasing). As Germany has not applied to receive any SURE assistance and 54% of the investors are connected to TARGET2 via Germany, German TARGET2 claims would, according to these calculations, decrease by 54% of the total funds raised under SURE.

NGEU has a similar investor profile to SURE. At the same time, it is assumed that only those Member States that also applied for SURE assistance are taking out NGEU loans. Additionally, all Member States will probably receive grants. As a result, the proportion of disbursements to Member States with TARGET2 claims would, at 28%, be 4 percentage points higher than under SURE.¹¹ To this extent, NGEU can be expected to have a lower (in relative terms) direct effect on TARGET2 balances than SURE. Specifically, the effect on total TARGET2 claims or liabilities may be a decrease of around 50% of the disbursed funds. The decrease for the German TARGET2 balance alone would be 46% (50% decreasing, 4% increasing).

Due to the effects of both fiscal programmes up to November 2021, the rise in German TARGET2 claims is estimated to have been dampened by €80 billion, as shown in Figure 4. Italy’s TARGET2 liabilities would have been an estimated €41 billion higher without the fiscal measures. Overall, the effect of the fiscal programmes – compared to a scenario without EU assistance – is reflected in a narrowing of balance developments. Actual development depends, however, on further factors such as banks’ portfolio decisions.

Figure 4: Selected TARGET2 balances, with and without the influence of the fiscal programmes



Development compared with estimates less the effects of bonds actually issued and disbursements actually made up to November 2021 under SURE and NGEU. Based on monthly averages.

Sources: ECB (TARGET2 balances) and European Commission (fiscal measures), authors’ calculations.

¹¹ Here, too, there are uncertainties arising from the unknown size of the individual investment amounts and from countries that do not participate in TARGET2 or whose TARGET2 balance sign changes.

Estimation of balance development

We estimate the development of TARGET2 balances – as influenced by asset purchases for monetary policy purposes and the fiscal programmes – using a very simplified linear model. The model disregards other exogenous determinants. The potential influence of further monetary policy measures, such as targeted longer-term refinancing operations or the two-tier system (Deutsche Bundesbank 2021), is not incorporated into the model. This allows the estimation results to be easily interpreted. Overall, the estimation results seem plausible and explain a large part of the dynamics.

Unlike Eisenschmidt et al. (2017), we do not model how balances develop based on the purchases and the respective purchasing central bank and counterparty (primary effect). Instead, we use an adapted Prais-Winsten ordinary least squares method (OLS estimation),¹² which estimates the German TARGET2 balance and the total TARGET2 claims as a function of the total stock of the Eurosystem's net purchases. The amount of purchases varies over time. In addition to the primary effect of the purchases, the estimation is also influenced by second-round effects and various other factors. Second-round effects include, for example, adjustment reactions by banks which lead to cross-border redistribution of the liquidity created by the purchases. The estimated average effect of the purchases on TARGET2 balances is assumed to be constant. This assumption is only realistic when:

- the composition of the counterparties from whom assets are purchased (and thus the cross-border effects of the purchases) remains constant;
- the distribution of purchases among central banks does not significantly change;
- the second-round effects or the (re)distribution effects of the liquidity develop in a constant manner.

So far, a steady linear trend in the development of TARGET2 balances under the influence of the purchase programmes has been observed. The structure of the counterparties from which securities are purchased appears to have been relatively constant in the past, because it is chiefly large international credit institutions that act as counterparties. Purchases by central banks are generally in line with the ECB's capital key. However, it should be mentioned that the purchases initiated in 2020 in response to the coronavirus crisis allow for greater flexibility in terms of implementation.

On the basis of these assumptions, TARGET2 claims are regressed as the dependent (endogenous) variable on the sum of net purchases as the independent (exogenous) variable. The data are estimated on the basis of business days t since the beginning of government bond purchases in March 2015. For German TARGET2 claims ($T2balance_{DE,t}$), the regression equation is therefore as follows:

$$T2balance_{DE,t} = \beta_0 + \beta_1 Purchases_t + \varepsilon_t \quad \text{where } \varepsilon_t = \rho \varepsilon_{t-1} + e_t, \quad |\rho| < 1$$

¹² The adaptation also incorporates a serial correlation in the error term.

However, this estimation disregards the countervailing impact of the fiscal programmes. To incorporate the effects of SURE and NGEU, we expand the estimation to include the funds disbursed under SURE and the amounts raised and disbursed under NGEU:

$$T2balance_{DE,t} = \beta_0 + \beta_1 Purchases_t + \beta_2 SURE_t + \beta_3 NGEU_borrowing_t + \beta_4 NGEU_disbursement_t + \varepsilon_t$$

where $\varepsilon_t = \rho\varepsilon_{t-1} + e_t, \quad |\rho| < 1$

The equations for total TARGET2 claims on any business day are estimated in the same manner. Borrowing and disbursement under SURE are not separated as they take place on the same day – unlike with NGEU, where, by contrast, borrowing and disbursement take place on different days. For example, sums raised by means of bond issuance can be temporarily “parked” in an account held by the European Commission with the ECB before they are disbursed to Member States. As a result, days where funds are raised and days where funds are disbursed have differing effects on the respective TARGET2 balances.

It should be noted that on account of the restricted number of data points, the estimations for SURE (7 days with disbursements) and NGEU (13 days with borrowing and 12 days with disbursements) are likely to be less reliable, as other developments on individual days may considerably distort the results. These include, for instance, fluctuations on reporting dates, which are attributable to funds being moved around as a result of window-dressing (Deutsche Bundesbank 2019).

According to Table 1, the estimation yields at least partially plausible values. Disbursements under SURE have a slightly stronger effect than assumed above. All other things being equal, raising and disbursing €1 decreases total claims by €0.68 and the German TARGET2 balance by €0.58. Borrowing under NGEU, by contrast, has a significantly stronger effect on total claims and Germany’s TARGET2 balance in the estimation than implied by the investor distribution (decline of €1.04 and respectively €0.68 in Germany’s TARGET2 balance). All other things being equal, disbursements under NGEU result in a rise in TARGET2 liabilities at the ECB,¹³ and, in the recipient country, a decrease in TARGET2 liabilities or an increase in TARGET2 claims. Contrary to expectations, the estimated coefficient of the disbursement under NGEU is strongly positive, but not statistically significant. For the German TARGET2 balance, the estimation yields a negative effect, which is likewise not statistically significant.

Taken in isolation, the results suggest that the asset purchases raise TARGET2 balances while the fiscal programmes have a dampening effect. However, in view of the assumptions that have to be made and the short observation period, these results should be interpreted with caution. In contrast to the purchase programmes, transactions in the context of the fiscal programmes are made on an irregular basis, which is why significantly fewer observations are recorded. For asset purchases, on the other hand, data covering multiple years are available.

¹³ Here it is assumed that the European Commission disburses funds via an account held with the ECB.

Table 1: Coefficients from Prais-Winsten estimation

	Dependent variable	
	TARGET2 total claims	TARGET2 balance Germany
Purchases (β_1)	0.24***	0.15***
SURE (β_2)	-0.68***	-0.58***
NGEU-borrowing (β_3)	-1.04***	-0.68***
NGEU-disbursement (β_4)	0.70	-0.11

*** = significance level < 1%, ** = significance level < 5%, * = significance level < 10%, without * = no significant correlation.

Source: Authors' calculations.

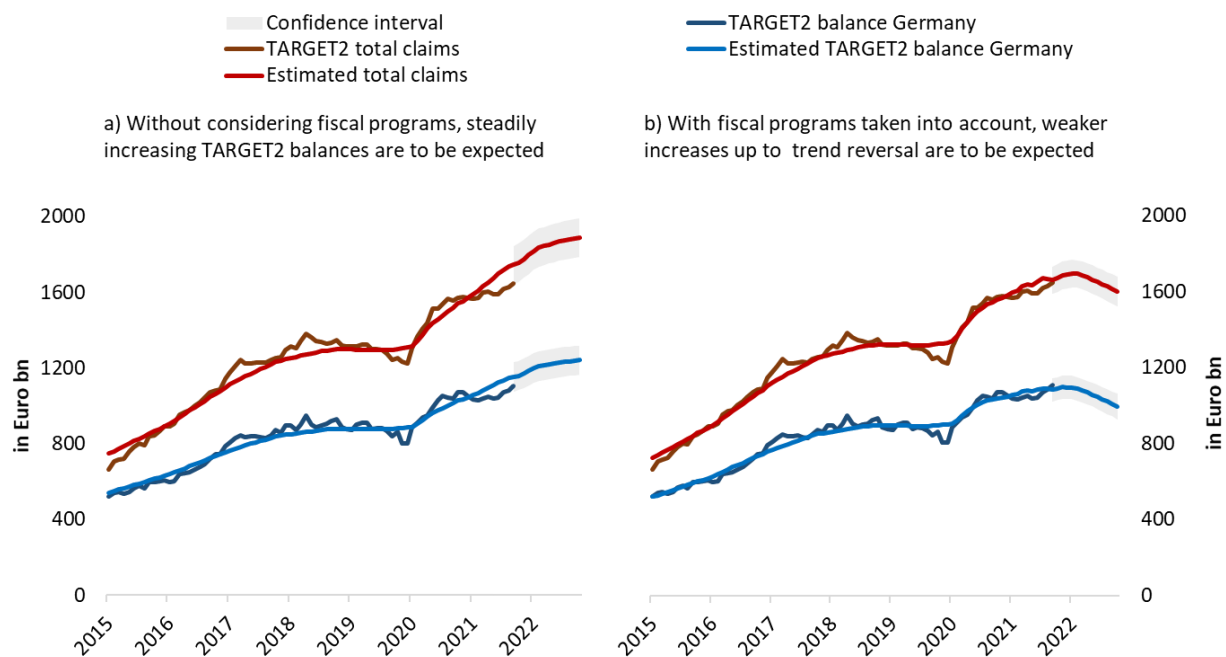
Based on the estimation results, it is possible to project the development of TARGET2 balances under the influence of the asset purchase programmes and the expected size of the fiscal programmes for 2022. In addition to the uncertainty when estimating the parameters, using them for a projection presents further challenges. The future path of the fiscal programmes is difficult to predict. The linear interpolation of raising and disbursing funds under NGEU is therefore less plausible as large tranches are raised on some days and disbursed later. Under SURE, too, funds do not flow steadily, but rather in individual bursts. However, the scope of this programme has already been almost exhausted. Furthermore, the intertemporal difference between borrowing and disbursement dates under NGEU, which are only published ex post, leads to even greater uncertainty.

Assumptions regarding the future path of the asset purchase programmes are based on the ECB Governing Council's decisions of December 2021 (European Central Bank 2021), according to which net purchases under the PEPP will be discontinued at the end of March 2022. In return, the monthly net purchases under the APP are set to be raised by €20 billion to €40 billion for three months. This sum will be lowered to €30 billion in the third quarter of 2022. From October 2022 onwards, monthly net purchases will then continue at a pace of €20 billion. This development is subject to future monetary policy decisions.

The projected effect of NGEU is calculated on the basis of the estimated coefficient for SURE, as borrowing and disbursement dates are not modelled separately and the coefficient appears to be more consistent. To this end, the development of the balances is interpolated using the assumed values for the asset purchases and the fiscal programmes as well as the coefficients from Table 1 up to the end of 2022. However, the SURE coefficient could overstate the development because, for example, Germany has only received disbursements under NGEU, not under SURE.

Not including the fiscal programmes, rising TARGET2 balances are to be expected for 2022 on average in view of the purchases (see Figure 5). However, if the fiscal programmes are considered, growth is slower at the start of 2022. From the second quarter onwards, there could even be a trend reversal. An initial sideways movement is to be expected for Germany if the fiscal programmes are taken into account, after which the TARGET2 balance would tend to decline.

Figure 5: Estimation and projection of developments



The estimation is performed on the basis of an adapted OLS estimation (Prais-Winsten), which takes into account a serial correlation in the error term. It is assumed that purchases under PEPP will be discontinued by the end of March 2022. Monthly net asset purchases under the APP are set to total €40 billion in the second quarter of 2022 and €30 billion in the third quarter, and to return to €20 billion from October 2022 onwards. The grey-shaded area shows 95% confidence intervals based on historical observations. Based on monthly averages. Actual development up to the end of November 2021.

Sources: Deutsche Bundesbank and ECB, authors' calculations.

Conclusion

While TARGET2 balances were at times a closely watched and hotly debated stress indicator during the financial crisis, asset purchase programmes, in particular, have been driving changes in the balances for a number of years. At the current juncture, the European Union's pandemic-related fiscal measures are also having an impact on TARGET2 balances, which should be borne in mind when interpreting them. This could even result in a trend reversal; at the very least, the current rise in total TARGET2 claims as well as German TARGET2 claims could be curbed. At present, though, the effect of the programmes is still relatively minor. Based on the expected disbursements in the years 2022 to 2024, a stronger impact is to be anticipated. How balances will develop going forward is fraught with uncertainty due to the assumptions that have to be made, the dependence on monetary policy decisions and the observation period, which has been very short to date.

References

Bettendorf, T. and A. Jochem (2021), What Drives the German TARGET Balances? Evidence from a BVAR Approach, Deutsche Bundesbank Discussion Paper No 12/2021.

Bruegel (2021), European Union countries' recovery and resilience plans, 1 December 2021, available at <https://www.bruegel.org/publications/datasets/european-union-countries-recovery-and-resilience-plans/>, accessed on 15 December 2021.

Darvas, Z. (2020), Three-Quarters of Next Generation EU Payments Will Have to Wait Until 2023, Bruegel Blog Post, 10 June 2020, available at <https://www.bruegel.org/2020/06/three-quarters-of-next-generation-eu-payments-will-have-to-wait-until-2023/>, accessed on 30 November 2021.

Deutsche Bundesbank (2016), The impact of Eurosystem securities purchases on the TARGET2 balances, Monthly Report, March 2016, pp. 53-55.

Deutsche Bundesbank (2017), TARGET2 balances – mirroring developments in financial markets, Monthly Report, December 2017, pp. 75-76.

Deutsche Bundesbank (2019), Stellungnahme der Deutschen Bundesbank anlässlich der öffentlichen Anhörung des Finanzausschusses des Deutschen Bundestags am 5. Juni 2019, <https://www.bundesbank.de/de/presse/stellungnahmen/stellungnahme-der-deutschen-bundesbank-anlaesslich-der-oeffentlichen-anhoerung-des-finanzausschusses-des-deutschen-bundestags-am-5-juni-2019-798206>, accessed on 15 December 2021.

Deutsche Bundesbank (2021), The two-tier system for reserve remuneration and its impact on banks and financial markets, Monthly Report, January 2021, pp. 59-79.

Eisenschmidt, J., D. Kedan, M. Schmitz, R. Adalid and P. Papsdorf (2017), The Eurosystem's asset purchase programme and TARGET balances, ECB Occasional Paper Series No 196, September 2017.

European Central Bank (2020), TARGET Annual Report May 2020, May 2020.

European Central Bank (2021), Monetary policy decisions, press release, 16 December 2021, available at <https://www.ecb.europa.eu/press/pr/date/2021/html/ecb.mp211216~1b6d3a1fd8.en.html>, accessed on 16 December 2021.

European Commission (2020), EU's Next Long-Term Budget & NextGenerationEU: Key Facts and Figures, 11 November 2020, available at https://ec.europa.eu/info/sites/default/files/about_the_european_commission/eu_budget/mff_factsheet_agreement_en_web_20.11.pdf, accessed on 30 November 2021.

European Commission (2021a), EU Investor Presentation, available at https://ec.europa.eu/info/sites/default/files/about_the_european_commission/eu_budget/ip_07_2021.pdf, accessed on 30 November 2021.

European Commission (2021b), NextGenerationEU Funding Strategy, available at https://ec.europa.eu/info/sites/default/files/about_the_european_commission/eu_budget/factsheet_funding_plan_v7.pdf, accessed on 30 November 2021.