

## The safe asset potential of EU-issued bonds\*



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*A safe asset is of high credit quality, retains its value in bad times, and is traded in liquid markets. We show that bonds issued by the European Union (EU) are widely considered to be of high credit quality, and that their yield spread over German Bunds remained contained during the 2020 Covid-19 pandemic recession. Recent issuances and taps under the EU's SURE and NGEU initiatives helped improve EU bonds' market liquidity from previously low levels, also reducing liquidity risk premia. Eurosystem purchases and holdings of EU bonds did not impair market liquidity. Currently, one obstacle to EU bonds achieving a genuine euro-denominated safe asset status, approaching that of Bunds, lies in the one-off, time-limited nature of the EU's Covid-19-related policy responses.*

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Modern financial systems rely on safe assets that are characterized by three aspects: quality, robustness, and liquidity. When compared to the United States, the market for euro-denominated safe assets is not only small, but also fragmented across different sub-markets. In light of this shortage and fragmentation, Bletzinger, Greif and Schwaab (2022) study the quickly growing market of EU-issued bonds, with a view to assessing their prospects for ultimately becoming a genuine euro-denominated safe asset.

### A new big player on Europe's bond markets

The implementation of SURE and NGEU in 2020 and 2021 marked a watershed in the landscape of the EU's common fiscal policy, both regarding the sizable volumes and the independent funding structures. Historically, EU borrowing has taken place since the early 1980s and typically lent to beneficiary countries in a back-to-back fashion, meaning that countries' loan repayments to the EU were matched one for one with the EU's own coupon and principal payments. The much larger SURE and NGEU-related volumes have required a more active liquidity management of the EU's balance sheet. In April 2021, the practice of back-to-back lending was therefore not made a requirement for the NGEU initiative, giving instead way to a more flexible management of EU funds.

As of December 2021, the amount of outstanding EU bonds has grown to €215 billion (bn) in total. The first SURE bonds were issued in October 2020, while the first NGEU bonds were issued in June 2021. By December 2021, SURE and NGEU-related bonds account for three-quarters of all outstanding debt. By 2028, NGEU volumes are foreseen to reach €800 bn, more than twelve times the December 2021 volume. Together with the approved funding for other smaller programs, the total available amount of EU bonds is scheduled to exceed €1 trillion by 2028. This amount corresponds to approximately 43% of Germany's public debt in 2020, and to approximately 65% of Spain's.

### The need for euro-denominated safe assets

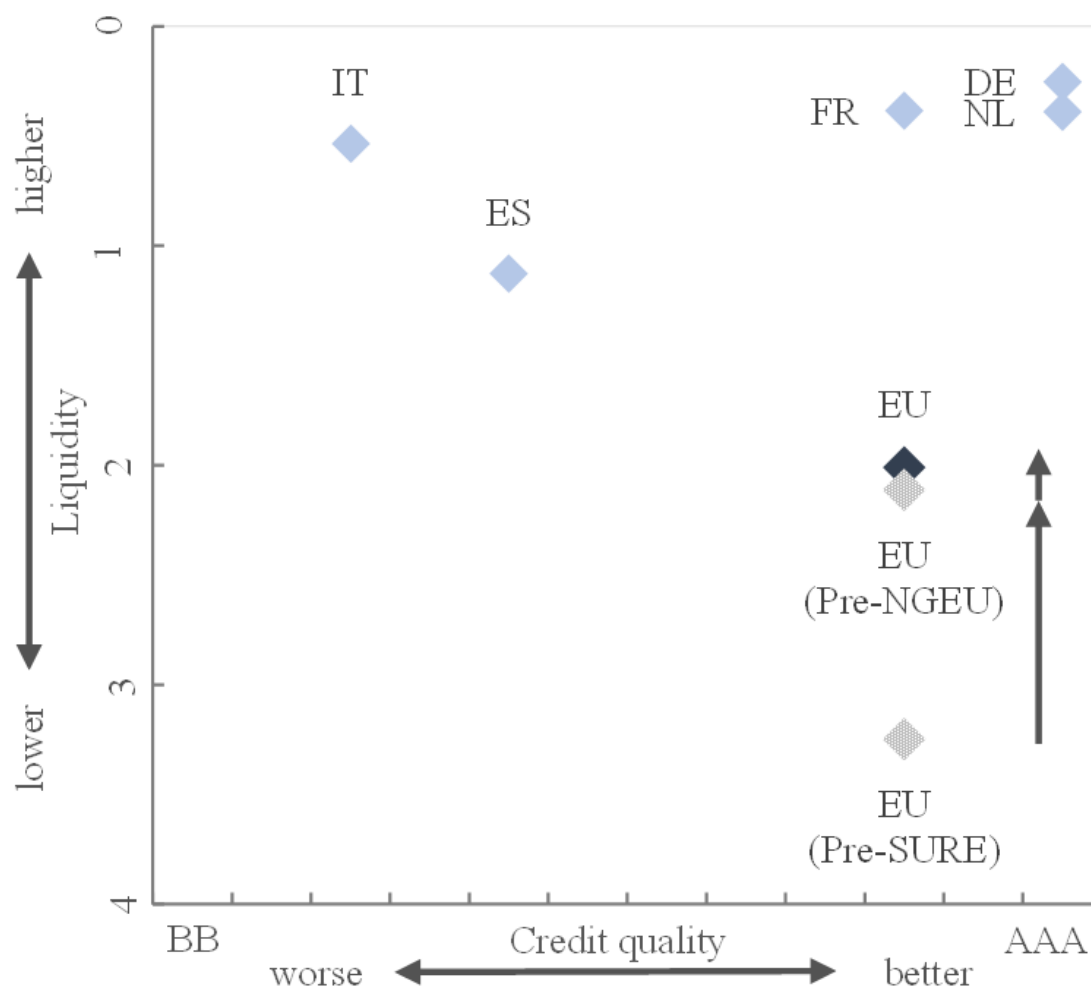
Safe assets are characterized by three aspects (see Bletzinger et al. (2022) for relevant literature): First, a low default risk, or high asset "quality". Second, like a good friend, a safe asset retains its value during bad times ("robustness"). Third, a safe asset can be sold at or near current (robust) market prices in most market conditions ("liquidity").

There is widespread agreement among policy makers that the euro area suffers from a relative lack of euro-denominated safe assets, particularly when compared to the United States. In addition, the market for sovereign bonds in the EU is fragmented across different sub-markets, and market participants' perceptions about the relative risks of these sub-markets can change over time. The lack and fragmentation of euro-denominated safe assets are unfortunate, since both can increase the risk of vicious bank-sovereign "doom loops," of high public borrowing costs in bad times, and of unwelcome flights-to-safety that increase financial fragmentation.

### EU bonds: creditworthy, robust, but also liquid enough?

In bond markets, investors demand additional compensation relative to the safest assets for a range of risks, with default risk (i.e. the risk that the issuer does not repay its obligations) often being the most important. Several institutional layers of debt-service protection render EU-issued bonds, including SURE and NGEU-related bonds, low in default risk. Rating agencies, however, are not in complete agreement on the extent to which EU bonds are entirely free of default risk. Moody's keeps its best long-term issuer rating (Aaa) for the EU while Standard and Poor's only provides a long-term issuer rating from its second-best rating bracket (AA), two notches below its top rating. The horizontal axis of **Figure 1** plots the minimal rating across four rating agencies on its horizontal axis, suggesting that rating agencies collectively consider EU bonds' credit quality as close but not (yet) equal to those of e.g. German Bunds. At the same time, EU bonds have traded at tight yield spreads to German Bunds, and below 2019 GDP-weighted average euro area yields, suggesting that the high credit quality of EU bonds is well-understood by market participants.

Figure 1: Credit risk and liquidity indicators for EU bonds



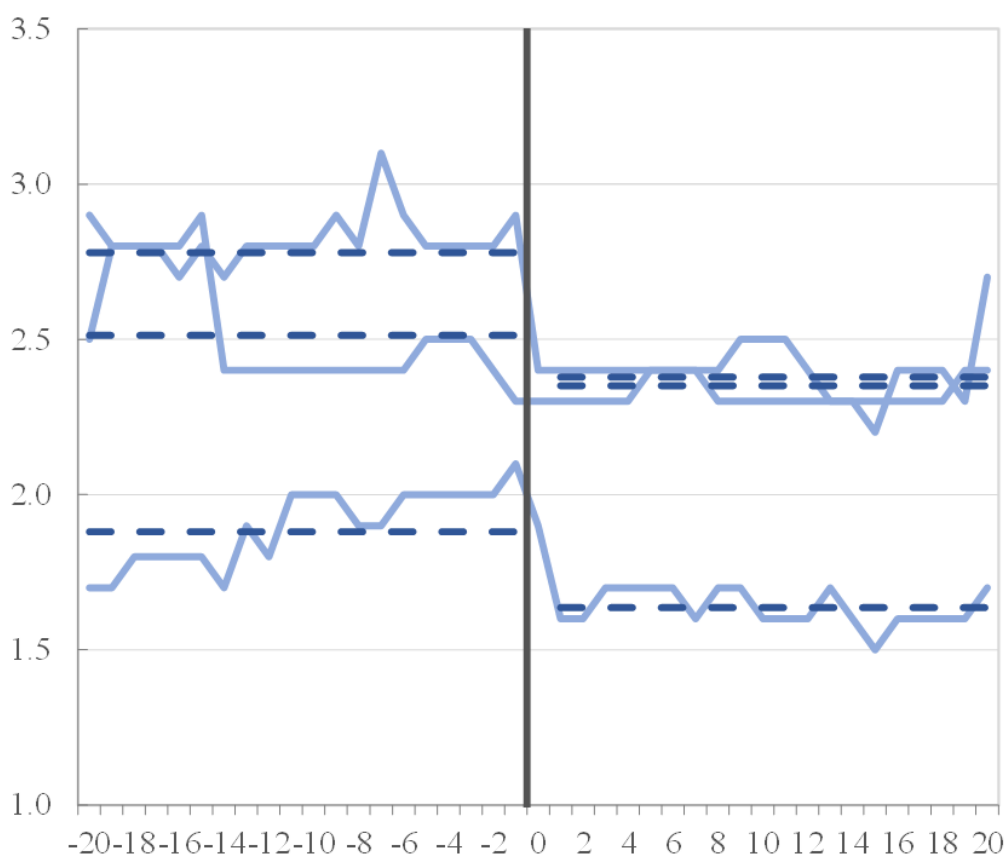
Notes: Scatterplot of market liquidity (average bid-ask spreads in basis points) vs. credit quality (minimum rating). Arrow origins refer to September 2020 (“Pre-SURE”) and May 2021 (“Pre-NGEU”). Arrow end points and all other diamonds refer to October 2021 (Post-NGEU’s first auction). Higher liquidity corresponds to tighter bid-ask spreads. The rating score on the horizontal axis is calculated from minimum issuer ratings across S&P, Moody’s, Fitch, and DBRS.

The yield spreads of EU bonds also speak to the robustness of these bonds. Their spreads over the Bund rose only slightly during the onset of the Covid-19 pandemic recession in early 2020, and by considerably less than Italian and Spanish spreads. This stability of EU yield spreads does not mean that EU bonds will automatically become a supranational euro-denominated safe asset. But, like a good friend, EU bonds have shown to retain their value during these demanding times.

Furthermore, a safe asset is traded in liquid markets. Market liquidity ensures that investors can sell their asset at any time without greatly moving the market price. Liquidity risk is a second key risk (beyond default risk) for which investors demand compensation. The spread between bid and ask quotes is, arguably, the most straightforward indicator of market liquidity, providing information on how costly a (round-trip) transaction in a bond can be expected to be on any given day. Before the first issuance of SURE bonds in October 2020, EU bonds were subject to a considerably lower market liquidity (i.e., wider bid-ask spread) than large euro area member states’ sovereign bonds. **Figure 1** shows that the EU bonds’ bid-ask spreads decreased substantially over time following the launch of SURE and NGEU, approaching the level of Spanish sovereign bonds’ and German KfW agency bonds’ bid-ask spreads.

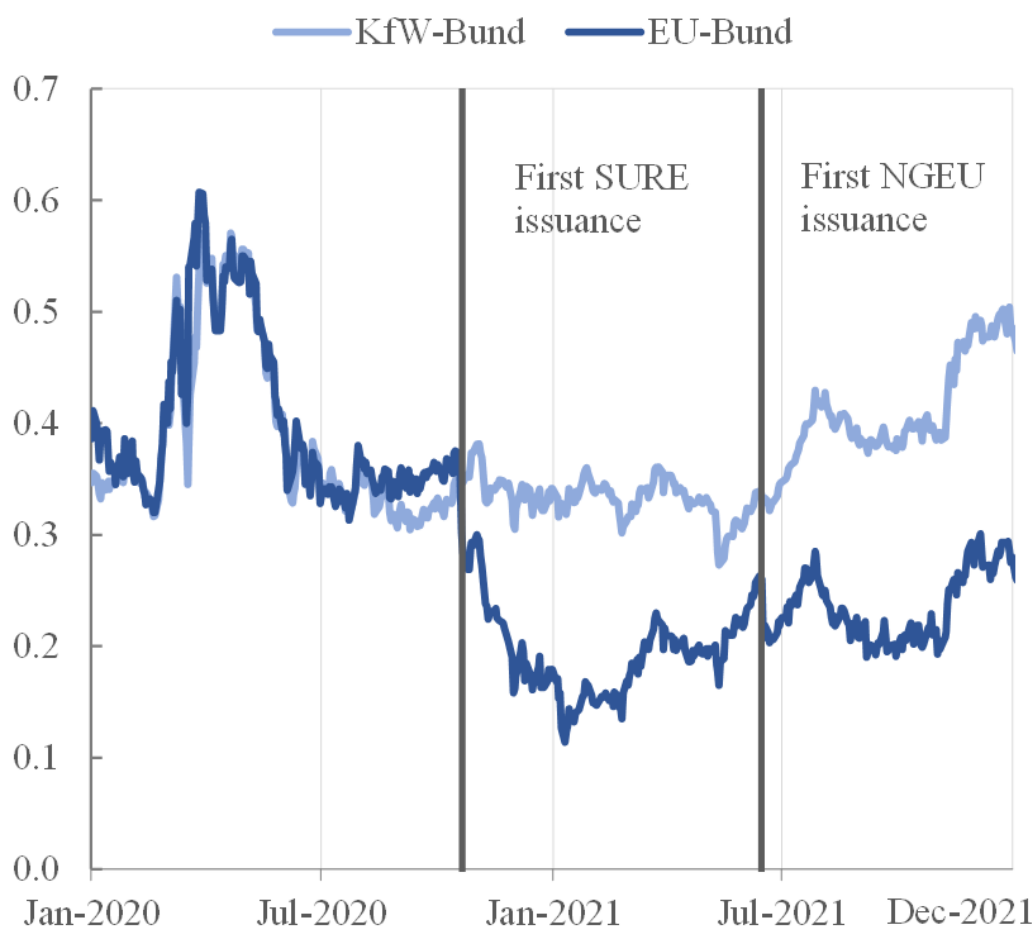
In addition to new bond issuances, the practice of “tapping” already-issued EU bonds probably contributed to improving the market liquidity of the tapped bonds. To explain, the EU, like many other issuers, can raise funds in two complementary ways: by issuing a new bond, or by adding to the outstanding volume of an already existing bond. **Figure 2** plots bid-ask-spreads for the first three EU SURE bonds that have been tapped since October 2020. The chart suggests that each bond has become more liquid following the tapping date, in line with the behavior observed for other issuers using taps. This pattern is encouraging as it suggests that EU bonds’ market liquidity could improve further with time and new taps. In Bletzinger et al. (2022) we corroborate the liquidity-improving impact of taps by means of a panel regression, using a control group matching tapped EU bonds with similar non-tapped EU bonds. We conclude that tapping existing EU-bonds appears to be an expedient way to raise EU funding in the future, in line with the EU’s announced plans to make regular use of tapping.

**Figure 2: Bid-ask spreads around tapping events**



Notes: Bid-ask spreads for the first three taps following the first issuance of SURE bonds (horizontal axis in bps, vertical axis +/- 20 days from tap event). The vertical line indicates the respective tap day.

Given our previous discussion of market liquidity, we expect EU bonds’ liquidity risk premia to be like those of other high-quality but less liquid bonds, and to decline following SURE and NGEU-related issuances and taps. In fact, changes in EU bond yields correlate with those of KfW bonds to a similar extent as EU bonds correlate with each other (correlation of  $>0.98$ ). German and, to a lesser extent, Dutch and French yields are also closely correlated. A clear improvement of EU bonds’ market liquidity can be observed in decreasing yield spreads over other reference bonds. **Figure 3** compares the ten-year EU-Bund spread to the ten-year KfW-Bund spread over time. Both time series evolve almost identically, up to the first issuance of EU SURE bonds on 20 October 2020. EU bonds’ total market volumes, and therefore also expected trading volumes, increased considerably following each SURE and NGEU issuance date. The divergence between the two yield spreads, particularly following the first SURE bond issuance, suggests that investors well incorporated the improved liquidity conditions into the yields of EU bonds.

**Figure 3: EU-Bund vs. KfW-Bund spread**

Notes: KfW-Bund and EU-Bund yield spread (in ppt). Sample from January 2020 to December 2021. Vertical lines refer to first issuances of SURE and NGEU bonds.

In Bletzinger et al. (2022) we also argue that a safe asset's market liquidity should be sufficiently high to accommodate central banks' monetary policy operations. Specifically, central bank purchases (flows) and asset holdings (stocks) should not inappropriately dry up a burgeoning market. Based on another panel estimation using purchase data of the European Central Bank, we conclude that central bank purchase flows and asset holdings do not appear to have hindered the trading of EU bonds in economically significant ways.

### Policy implications

Summarizing and weighing the above findings, EU bonds score relatively high on the quality scale (low perceived default risk), while exhibiting improved but still sub-par market liquidity relative to German Bunds. Market liquidity will probably be improved, however, to some extent.

EU bonds' prospects for becoming a genuine euro-denominated safe asset could potentially be hampered by the fact that both SURE and NGEU programs are foreseen to be one-off, time-limited Covid-19 emergency responses. After all, safe assets tend to trade in markets without a definite endpoint (think of e.g. U.S. Treasuries or German Bunds), which renders the cost of setting up a dedicated trading infrastructure less important. By contrast, the final EU SURE and NGEU bonds are currently foreseen to mature in 2052 in 2058, respectively. This finite maturity may deter investors from establishing a long-term investment strategy in which EU bonds would be considered a permanent part of their portfolios. A possible mitigation of that obstacle could be the realization of an additional bond-financed EU budget to cushion some of the detrimental impact resulting from Russia's war against Ukraine, as discussed within the EU at the time of writing.

Finally, the perception of EU bonds as safe assets will eventually also hinge on the continuation of their favorable regulatory treatment. While the lifetime and regulatory treatment of SURE and NGEU bonds are to some extent within the ambit of the EU member states, other determinants of secondary market liquidity depend primarily on private-sector actors. For instance, EU bonds are currently not included in sovereign bond indices. This exclusion restricts demand for them from certain safe-asset funds. In addition, there is currently no direct derivative hedge instrument for EU bonds. For such an instrument to be viable, a deep and liquid repo market would need to evolve first. Even though it is too early to judge whether private market participants will include EU bonds in sovereign bond indices or introduce futures contracts, both the recent improvement in market liquidity and the overall increasing attention gained by EU bonds offer some support for such steps. ■

## References

Bletzinger, T., W. Greif and B. Schwaab (2022), "Can EU bonds serve as euro-denominated safe assets?", Working Paper Series, No. 2712, August 2022, European Central Bank. Also forthcoming in the Journal of Risk and Financial Management.

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