DOI: 10.1007/s10272-019-0798-z

Lorenzo Bini Smaghi and Michala Marcussen

# Domesticating the Euro

When the collapse of Lehman Brothers in September 2008 sent shockwaves through global financial markets, the euro behaved like a safe haven currency, reflecting the credibility of the price stability target and the strength of the ECB as an institution. However, in the absence of a lender of last resort to the sovereign and a banking union, cracks soon appeared, triggering a costly crisis that saw the euro area periphery behave like an emerging market.

In a bid to address these issues, the euro area set up several new institutions and tools. At the top of that list, the European Stability Mechanism (ESM) established conditional funding support for Member States that have lost or are in danger of losing market access. The creation of the Banking Union delivered a Single Supervisory Mechanism (SSM) and a Single Resolution Mechanism (SRM). Governance was also enhanced with the European Semester, encouraging Member States to coordinate economic policies, ensure sound public finances, drive structural reform and boost investment. Finally, the European Central Bank (ECB) introduced several new tools including Outright Monetary Transactions (OMT) as a potential support to sovereign bond markets of Member States under an ESM programme.[1]

Impressive as this progress has been, the sovereign-bank doom loop has yet to be fully severed. This reality has triggered a flurry of new proposals that set out various ideas as to 'how' a sufficient supply of 'safe' euro assets can be created and replace national government bonds on bank balance sheets. While this design discussion is both valuable and necessary, we believe it is worth taking a step back to summarise the 'why'. The following discussion sets out eight interlinked reasons why a single safe asset for the euro area is a 'need to have' rather than 'a nice to have', and next benchmarks the main proposals for a safe asset on the table today to see how well they fair. We find the litmus test is whether governments gain access to a safe source of funding in a 'domestic' currency. Of the list of solutions considered, both Purple bonds and E-bonds can meet this criterion. E-bonds provide a single safe asset from the on-set, while Purple bonds limit potentially destabilising risks in transition. The two proposals can be combined to secure both advantages.[2]

1 As was the case for the other major central banks in the wake of the crisis, the ECB introduced several non-standard monetary policy measures in response to the crisis, including the Securities Market Programme (SMP), Longer-Term Refinancing Operations (LTRO), Covered Bond Purchase Programme (CBPP), Targeted LTROs, Asset-Backed Securities Purchase Programme (ABSPP) and Public Sector Purchase Programme (PSPP).

**Lorenzo Bini Smaghi**, Société Générale, Paris, France; LUISS School of Political Economy, Rome, Italy.

**Michala Marcussen**, Société Générale, Paris, France.

## A safe euro asset is not just for banks

Creating a safe asset is about more than just breaking the sovereign-bank doom loop, and considerations must be given to government funding and monetary policy. Furthermore, if the euro area is to deliver on its ambitions for a Capital Markets Union and a stronger international role for the euro, these aspects must also be considered. We identify a total of eight reasons why the euro area needs a safe asset (see Figure 1).

### A counter-cyclical asset for bank balance sheets

From the vantage point of a bank, a safe asset must preserve value, remain liquid in all market conditions, provide safe collateral and qualify for regulatory requirements. Highly-rated government debt generally exhibits counter-cyclical pricing patterns, remains liquid even in crisis (in part, due to potential central bank support), enjoys low risk weightings and qualifies for regulatory requirements. There are two main channels through which government debt holdings impact bank balance sheets and funding condition: asset and collateral.

- *Asset*: As is true for any asset held by a bank, losses on government debt holdings weaken the balance sheet, thereby making funding more expensive and harder to obtain. In extreme cases, bank runs can result.
- *Collateral*: Safe assets, and government debt in particular, play an important role as collateral to secure wholesale funding and central bank liquidity.

2 L. Bini Smaghi, M. Marcussen: Strengthening the euro area architecture, a proposal for Purple bonds, SUERF Policy Note Issue No. 35, May 2018; M. Monti: A New Strategy for the Single Market, Report to the European Commission, 9 May 2010.

Figure 1
**Eight reasons why the euro area needs a safe asset**

| Banks | Governments | ECB | Capital Markets |
|---|---|---|---|
| Counter-cyclical balance sheet instrument | Safeguard government funding | Effective monetary policy transmission | Support deep & liquid capital markets |
| Reduce the sovereign-bank doom loop | Support fiscal policy | Unlimited QE[1] (if needed) | Support the international role of the euro |

[1] Quantitive Easing.

Source: Authors' own illustration.

The regulatory treatment of sovereign exposure is generally quite favourable. The Basel III framework includes the national discretion to apply a risk weighting of zero percent to national sovereign exposures funded and denominated in national currency. This practice means that it is attractive for national banks to hold these exposures as shown by Table 1 below.

Euro area banks today hold just over 1.5 trillion euro in the regions' government securities. A safe asset should be able to ensure that this demand is met. However, there are just under 1.6 trillion euro of outstanding German government debt securities, considered today the safest asset in the euro area. In fact, safe assets are desired not only by banks, but also by pension funds, insurance companies, corporate treasuries and individual savers. And already, the numbers hint that the euro area today faces a shortage of safe asset supply.

Moreover, the European Repo Market Survey set the total value of repos outstanding on the survey date at 7.351 billion euro, excluding transactions with central banks, as part of monetary policy operations. The share of government bonds within the pool of EU-originated fixed income collateral stand at 85.2%. This survey is EU wide and the euro accounts for 65.3% of the cash currency. Again, these numbers hint at a shortage of safe asset supply.[3]

*Status quo concern*: A significant loss of investor confidence on periphery government debt markets would spill over quickly to the national banks in question.

## Breaking the sovereign-bank doom loop

Breaking the sovereign-bank doom loop requires more than just a safe asset for banks. The Basel Committee on the Global Financial System identifies four channels through which sovereign credit impacts bank funding conditions.[4] The first two, assets and collateral, have already been discussed above. In addition, there are:

3 ICMA: European Repo Market Survey – Conducted June 2018, Published October 2018.
4 BCBS: The regulatory treatment of sovereign exposures, Basel Committee on Banking Supervision, Discussion Paper, December 2017.

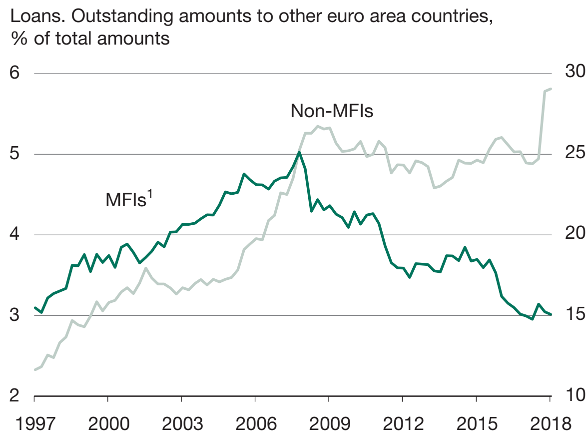
Table 1
**Euro area general government debt securities and ECB and bank holdings**
Selected Member States, latest available data point

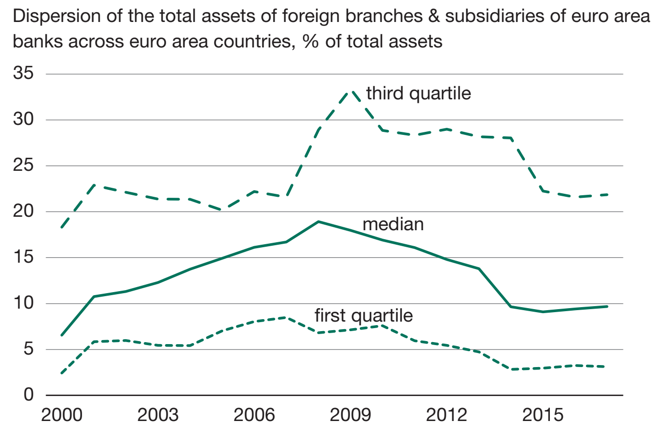
| | Bank holdings | | | | | ECB holdings | | Outstanding | | Maastricht Debt |
|---|---|---|---|---|---|---|---|---|---|---|
| | National €bn | % GDP | Other euro area €bn | Total €bn | Total % Assets | €bn | % GDP | €bn | % GDP | % GDP |
| Germany | 170 | 4.9 | 91 | 261 | 3.4 | 338 | 9.7 | 1583 | 46 | 57 |
| France | 138 | 5.7 | 28 | 166 | 1.9 | 357 | 14.9 | 1977 | 82 | 99 |
| Italy | 378 | 21.1 | 45 | 423 | 11.5 | 378 | 21.1 | 1960 | 109 | 131 |
| Spain | 194 | 15.6 | 48 | 242 | 9.1 | 226 | 18.2 | 1027 | 83 | 96 |
| Netherlands | 26 | 3.4 | 39 | 65 | 2.8 | 85 | 10.8 | 325 | 41 | 50 |
| Belgium | 34 | 7.5 | 24 | 58 | 5.8 | 65 | 14.1 | 401 | 87 | 100 |
| Austria | 26 | 6.5 | 15 | 41 | 4.8 | 42 | 10.6 | 257 | 65 | 71 |
| Finland | 4 | 1.5 | 5 | 9 | 1.4 | 26 | 10.8 | 109 | 46 | 58 |
| Ireland | 17 | 5.3 | 40 | 57 | 5.2 | 24 | 7.5 | 134 | 42 | 61 |
| Greece | 12 | 6.2 | 4 | 16 | 5.5 | -15 | -8.2 | 67 | 36 | 175 |
| Portugal | 34 | 16.8 | 16 | 50 | 12.9 | 15 | 7.1 | 164 | 80 | 119 |

Note: The outstanding amount is given for general government securities. Total Maastricht Debt is shown for reference.

Sources: ECB; Thomson Reuters; and author's calculations.

Figure 2
**A fragmented banking landscape**




[1] Monetary Financial Institution. Right scale.

Source: ECB Statistical Data Warehouse.

- *(Implicit) guarantees*: Banks derive benefit from both implicit and explicit government guarantees. These guarantees are motivated by the important role that banks play for economic and financial stability. At the same time, there is the justified concern of moral hazard. Post-crisis supervisory and regulatory reform has sought both to make banks safer and to reduce moral hazard.

- *Sovereign rating*: A downgrade of the sovereign rating often results in lower ratings for domestic banks, thus raises funding costs. This works both through the guarantee channel outlined above and through exposure to the domestic economy, which in turn also relies on the health of the sovereign.

Breaking the doom loop requires that all four channels are severed. In theory, the first two could be addressed, as discussed above, by creating a sufficient supply of safe assets. The question of government guarantees is at the heart of the logic behind the creation of the Banking Union with the establishment of the SSM, SRM and SRF. A single jurisdiction and a European Deposit Insurance Scheme (EDIS) are still missing.[5]

The final point on the sovereign rating is an extensive one as this is where the link to the domestic economy enters the equation. As seen in Table 1, the exposure to domestic assets across the euro area banking system remains high. Diversification of bank balance sheets is one way to address this fragmentation with the creation of genuine euro area wide banks. While such a development would certainly be welcome, the link between the sovereign and the domestic economy would still be relevant, and not the least for smaller banks that would still likely be concentrated in just a single euro area Member State.

*Status quo concern*: The euro area banking market remains fragmented, as illustrated in Figure 2, and the regions' banks remain exposed to a downturn in the respective domestic economies.

## Safeguarding government funding

In joining the euro, Member States lost their ability to issue sovereign debt in national currency, under national monetary control. Some of the resulting issues were already recognised in the design of the Maastricht Treaty and the Stability and Growth Pact (SGP) that both sought to promote prudent fiscal policy. The idea, furthermore, was that this rules-based approach would be further supported by market discipline. In the end, both failed. It is worth noting that both Spain and Ireland scored well on the SGP criteria pre-crisis with low public debt levels. The banking crisis, however, ended up costing both countries dearly.

The idea that a Member State could outright lose market access and thus, de facto, be forced to leave the euro area was not envisaged in the original design of the Eco-

5 D. Nouy: The European banking sector – towards a single jurisdiction, Speech delivered in Paris, 18 September 2018.

nomic and Monetary Union (EMU). This risk became all too apparent during the 2010-12 crisis. To address this, the euro area Member States scrambled to establish a lender of last resort, first on a temporary basis and later a permanent one in the form of the ESM with a maximum lending capacity of 500 billion euro.[6]

Entering an ESM programme secures the Member States' access to attractive funding conditions in return for which they must commit to economic reform (conditionality). Moreover, the ESM Treaty stipulates that "in exceptional cases an adequate and proportionate form of private sector involvement shall be considered in cases where stability support is provided accompanied by conditionality in the form of a macro-economic adjustment programme".[7]

Capacity has been an on-going concern with respect to the ESM. These fears were partly alleviated with the announcement of the OMT in the summer of 2012. Under the OMT, the ECB can purchase government bonds with a maturity of one to three years provided that the Member State in question has signed a memorandum of understanding with the ESM, fully respects the conditionality and retains full market access. While ESM loans enjoy preferred creditor status and are thus senior to other loans, OMT purchases are pari-passu.

While the OMT successfully addressed concerns on ESM capacity, much of the OMT's initial success derives from the political promise that the Greek debt restructuring would be a unique case. The Public Sector Purchase Programme (PSPP), announced in January 2015, offered further support to national bond markets. Both the OMT and the PSPP aim to address monetary policy transmission problems rather than lender of last resort ones.

*Status quo concern*: Concerns remain that the ESM is too small to deal with a large Member State in need of a programme. The OMT requires bond markets to remain open to be effective, but any talk of private sector involvement would likely shut markets, rendering the OMT ineffective.

### Supporting fiscal policy by reducing the sovereign-real economy doom loop

Allowing governments access to a safe debt instrument with counter-cyclical pricing patterns creates fiscal space in economic downturns, that – all else being equal – would allow governments to pursue counter-cyclical fiscal policies. A Fiscal Union with a joint central fiscal capacity and a single eurobond would fulfil such ambitions and help address moral hazard issues but is politically not feasible in the foreseeable future.

While there is, in principle, no reason why the conditionality of an ESM programme could not combine some level of fiscal expansion with structural reform, this has not been the pattern observed so far. Moreover, the euro area periphery has maintained a higher risk premium – even during recovery – reflecting redenomination, restructuring and liquidity risks. This reduces room for fiscal consolidation both directly on public balance sheets and indirectly through the real economic linkages to the national government yield curves.

It is worth recalling in this context that any attempt at sovereign debt restructuring in the present configuration would not only inflict significant losses on domestic investors, but would most likely deepen the economic crisis significantly. As already discussed, domestic savers need to be able to access a safe asset.

*Status quo concern*: A deterioration in sovereign risk premium against the backdrop of a severe economic downturn would bring an additional headwind to the real economy and reduce fiscal space.

### Safeguarding appropriate transmission of monetary policy

Monetary policy transmits to prices and economic activity through several channels. Expectations and money markets are the key starting points that feed through to government benchmark yield curves, bank lending rates, corporate bond yields, other risky assets and the exchange rate. Expectations, in turn, also feed into the wage and price setting process. When combined, these elements interact with supply and demand for goods, services and labour. For monetary policy to work efficiently within a monetary union, its 'singleness' must be protected to ensure its proper transmission to all Member States.

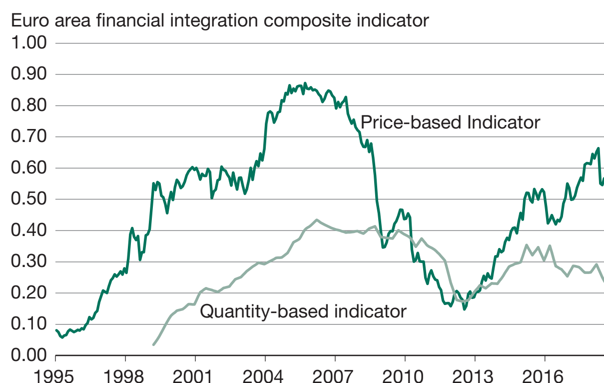
In response to the crisis, the ECB – like the other major central banks – adopted several unorthodox policy tools with various forms of Long-Term Refinancing Operations (LTRO) and Asset Purchase Programs (APP). The ECB, however, also adopted some specific measures aimed at "safeguarding an appropriate monetary policy transmission and the singleness of monetary policy",[8] first with the Securities Market Purchases (SMP) and later with the

6 The lending capacity stood at €410.1bn on 10 February 2018, c.f. www.esm.europa.eu.

7 Treaty establishing the European Stability Mechanism, 2012, p. 6, see: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:42012A0202(01)&rid=8.

8 ECB: Technical features of Outright Monetary Transactions, 6 September 2012.

Figure 3
**Financial fragmentation remains significant**




Source: ECB, Financial Integration in Europe.

OMT. The announcement of the Banking Union and the OMT marked a turning point for financial fragmentation in the euro area as illustrated by Figure 3. While price-based financial integration has recovered significantly, quantity-based measures remain low. Our concern is, moreover, that part of the improvement in the price-based measures may be cyclical, reflecting greater risk appetite, and that, faced with a more severe economic downturn, this indicator could again head south – reflecting renewed fragmentation.

As already discussed above, a single safe asset would help protect bank balance sheets, which are part of the transmission mechanism for monetary policy. An asset that is 'safe' only within the 'bank circuit' would, however, fail to address fragmentation elsewhere and thus not ensure the singleness of monetary policy.

*Status quo concern:* A loss of confidence in a Member State, be it the government or the banking system, could very quickly impair monetary policy transmission.

### Unlimited Quantitive Easing

The ECB's PSPP programme is subject to restrictions and with current holdings already at 2.1 billion euro, there is concern that the ECB lacks sufficient firepower when faced with a new economic downturn. Of course, if the outstanding volume of government bonds were to increase, so too would the ECB's purchase capacity, but there is a risk that markets would still deem this capacity too small. A single safe asset of sufficient size could further expand the ECB's arsenal and protect its credibility to do "whatever it takes".

*Status quo concern*: Ensuring that the ECB can do "whatever it takes" requires increased capacity, and not only in terms of Quantitive Easing (QE), in the event of a severe downturn. In the current political context, it will be challenging for the ECB to secure backing for such measures.

### Support deep and liquid capital markets

In times of crisis, investors will naturally seek refuge in safe assets. Van Riet highlights the so-called safety trilemma, where the absence of a common safe asset in a system with free capital mobility threatens financial stability.[9] This happens as investors seek safety in the safe asset (primarily the German Bund today) thus triggering a reversal of capital flows and threatening financial stability.

The presence of the TARGET2 system helps, in part, to mitigate these risks but a common safe asset would further limit such reversals. The avoidance of cross-border capital flight is the first condition for a Capital Markets Union (CMU). It is important to appreciate also that banks continue to play a key role even within a CMU, and not least via repo markets. As such, completing a Banking Union is an important element of building up a CMU. A common safe asset of sufficient size and liquidity would further strengthen a CMU by allowing financial assets to be priced off a single risk-free benchmark yield curve, which is largely the case for the US Treasury today.

*Status quo concern*: An incomplete Banking Union and still nascent CMU is a headwind to trend potential growth. This weighs on trend potential growth and leaves the region vulnerable to economic shocks.

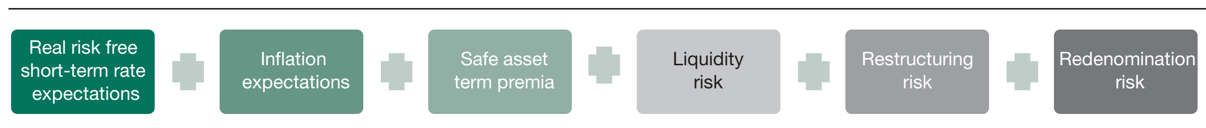
### Support the international role of the euro

The final argument we advance on our list of 'why' the euro area needs a safe asset is to support the goal of enhancing the international role of the euro. This is strongly connected to the CMU's ambitions to structurally lower funding costs for the real economy but comes with the distinct target of reducing regional dependency on the US dollar and allowing the euro area to safeguard its interests.

Much as domestic investors require a safe asset, so too do international investors. At present, global FX Reserves stand at just over 11 trillion US dollars, with an estimated 3.9 trillion US dollars held in safe and highly liquid US Treasuries. To develop the euro as an international currency, the euro area must be willing to supply a sufficient

9 A. Van Riet: Addressing the safety trilemma: a safe sovereign asset for the eurozone, ESRB Working Paper Series No. 35, February 2017.

Figure 4
**Bond yield anatomy**




Note: Counter-cyclical components are shown in green tones and pro-cyclical ones are shown in grey tones.

Source: Authors' own illustration.

amount of safe assets to meet global demand. This would also help ease the global shortage of safe assets.

*Status quo concern*: The euro area is dependent on the US dollar, leaving the region vulnerable to dollar liquidity shocks and vulnerable to attacks on its interests.

## A safe asset is a 'need to have'

As seen from the discussion above, the eight reasons 'why' the euro area needs a safe asset are not independent but rather interlinked with each other. In designing a safe asset for the euro area, consideration needs to be given to all these factors. The discussion below considers how various solutions would fare in meeting the criteria we outlined above. For detail on the technical aspects of the individual proposals, we refer to Leandro and Zettelmeyer.[10]

It is useful to recall that bond yields can be divided into six main components; the first three tend to behave 'counter-cyclically', while the latter three behave 'pro-cyclically'. Essentially, the differences between the individual solutions are in how these risks are treated and how new structures reshape them (see Figure 4).

National tranching essentially splits the risk in two by grouping the counter-cyclical components into a safe senior tranche and the pro-cyclical components into a riskier junior tranche. The advantage of this solution is that it creates a potentially significant stock of 'safe assets' and these markets should remain open even in crisis. The junior tranche addresses moral hazard: The more a government issue of this debt, the more expensive it becomes. The riskier nature of the junior tranche, however, increases the likelihood that the government will lose market access the larger it becomes. Moreover, the question of private sector involvement on the existing debt stock remains open and raises questions on its safety, especially in the early stages when the senior tranche (the existing debt) will still be large, leaving it at risk of loosing market access, too. As such, it is unlikely that there will be much improvement on the eight status quo concerns initially. Several decades of a very benign economic outlook would be needed for a smooth transition.

The Purple bond proposal addresses these issues by introducing conditional public risk sharing on the senior tranche (called the Purple bond in the proposal). This is done by promising not to restructure the Purple bond if a Member State needs an ESM programme. The guarantee makes it unlikely that a Member State would lose market access on Purple bonds as this would benefit from OMT and could also benefit indirectly from LTRO. Moreover, the conditionality of the ESM programme would steer the Member State in question toward the right course, making it more likely that public finances are sustainable long-term. As such, the guarantee is very unlikely to inflict costs on taxpayers. Purple bonds, however, do not protect from redenomination risk or unilateral decisions to restructure debt. While Purple bonds could be pooled at the euro area level, we see no need to create a special vehicle as each investor can build his own portfolio. The Purple bond proposal sets out a transition in which, at the end of 20 years, the Purple bond would amount to 60% (or less) of each Member State's GDP and could then be pooled in a genuine eurobond.

The Purple bond proposal would mark a partial improvement of banks, government funding and monetary policy transmission. Support for a CMU and the international role of the euro would be modest initially, but the potential genuine eurobonds at the end of the 20-year transition would be very supportive.

Sovereign Backed Bond Securities (SBBS) are created by pooling Member State government bonds into a senior 'safe' and a junior 'risky' tranche. SBBS could in theory

10 A. Leandro, J. Zettelmeyer: Europe's Search for a Safe Asset, October 2018, Peterson Institute for International Economics, Working Paper 18-20.

create a large volume of safe assets today, however, we see several issues. First, the instrument is complex and, unless euro area banks are ‘forced’ to own them, demand for the senior tranche is likely to be poor. While euro area regulation could in theory force this, it would not be able to do so at the global level and there is unlikely to be much foreign interest in this instrument. This also lowers the value of the senior tranche as collateral. And if banks are ‘forced’ to own the senior SBBS tranche, this implies removing liquidity from national bond markets, which would significantly increase the risk.

E-bonds create a genuine single safe asset that banks can hold on balance sheets and governments can access for funding. The plain vanilla structure should make this asset attractive to international investors as well. The issue that we see is in the transition process. By ‘juniorising’ the existing stock of national debt, this might at some point become both illiquid and a source of financial instability. This is where combining this proposal with Purple bonds offers value. The advantage of the Purple bond proposal is to bring conditional safety to the existing stock allowing for a smoother transition to E-bonds. Under the present proposal, E-bonds do not come with explicit public risk sharing, but this would be seen as implicit by the markets in an extreme event such as a euro area exit.

In a future steady state, E-bonds are quite similar to genuine eurobonds, albeit without (explicit) joint and several liability. Managing the transition is important and this is why we suggest combining this with Purple bonds. In essence, the idea is that current stock turns into Purple bonds and new issuance then takes place in E-bonds and new Red junior debt. To ensure liquidity in the transition, some issuance would probably still have to take place in Purple bonds. Moreover, the ECB would continue to conduct operations in Purple bonds (see Table 2).

Table 2
**Meeting the ‘why’ of safe assets**

| | Debt tranching | | | Debt structuring |
|---|---|---|---|---|
| | National tranching | Purple bonds | E-bonds | SBBS |
| **Banks** | | | | |
| Counter-cyclical balance sheet instrument | Not initially | Yes on restructuring risks, no on redenomination risks | Yes | Yes |
| Breaking the sovereign banks doom-loop | Not initially | Partially | Partially | Partially |
| **Government** | | | | |
| Safeguarding government funding | Not initially | Supports ESM credibility | Question on ESM capacity | No |
| Supports fiscal policy | Not initially | Partially | No | No |
| **Monetary Policy** | | | | |
| Effective transmission of monetary policy | Not initially | Partially | Partially | Limited |
| Unlimited QE (if needed) | Not initially | Partially | No | No |
| **Capital markets union** | | | | |
| Supports deep and liquid capital markets | Not initially | Limited | Yes | No |
| Supports international role of the euro | Not initially | Limited | Yes | No |

Source: Authors’ own elaboration.

Any solution that scorns all public risk sharing is unlikely to win credibility with markets and could even prove counter-productive. Several bricks are still missing from the euro area architecture, as already discussed. The Banking Union is incomplete, notably lacking Single Jurisdiction and a common European Deposit Insurance Scheme (EDIS). A CMU is still only at the starting gates and a Fiscal Union remains a very distant prospect. In the summer of 2018, Commission President Juncker added a new project to the euro area drawing board with the goal of strengthening the international role of the euro. In our minds, establishing a single safe asset could overcome many of the hurdles that each of these individual projects face.

As the euro turns 20, it is worth recalling that prior to finally creating the euro, several less binding attempts at monetary co-operation were made, including the Snake in the Tunnel and, later, the European Exchange Rate Mechanism (ERM) with the ECU; each suffered crises. When the Maastricht Treaty finally set out a path to the euro, a valuable convergence progress driving reform across the region was catalysed. Setting out such a vision today for a genuine safe asset would revive the European integration process given the important role that the safe asset plays for many of the building blocks. Our hope is that by the time the euro enters its 40s, a genuine eurobond will be part of the architecture, making the euro even stronger.