
Europe needs more than a Capital Markets Union—focus on the integration of euro area sovereign debt markets

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Summary: With a view to establishing a Capital Markets Union (CMU), efforts to integrate (private) capital markets and private risk-sharing in the European Union are underway. However, the single (capital) market will be burdened by a perennial potential threat to sovereign bond market stability in the euro area; these markets had disintegrated during the “euro crisis”. While several reforms related to the institutional architecture of the euro area, such as major parts of the banking union, have been implemented successfully, the eminent design feature of the euro area that nourishes fragmentation and flight to safety is not sufficiently fixed: With the adoption of the euro, Member States became ‘subsidiary governments’ that were no longer capable of issuing bonds under their own exclusive monetary control. Thus, integrating euro area sovereign bond markets should be a top priority. One remedy would be to pool sovereignty via euro bonds, or, given the reluctance to embrace risk-sharing among sovereigns, to introduce synthetic euro bonds that work without debt mutualization.

Zusammenfassung: Mit dem Ziel einer Kapitalmarktunion sind Bestrebungen im Gange, (private) Kapitalmärkte zu integrieren sowie private Risiken in der Europäischen Union zu teilen. Zu beachten ist, dass

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der Binnen(kapital)markt durch eine latente Instabilität der Staatsanleihenmärkte im Euroraum bedroht ist, zumal diese Märkte sich während der „Euro-Krise“ desintegriert hatten. Zwar wurden Reformen der institutionellen Architektur des Euro-Währungsgebiets, wie etwa große Teile der Bankenunion, erfolgreich umgesetzt; jedoch sind jene Aspekte des Euroraums, die Fragmentierung und Flucht nach Sicherheit bewirken, nicht hinlänglich repariert. Mit der Einführung der Gemeinschaftswährung wurden die Mitgliedstaaten zu "subsidiären Regierungen", die keine Staatsanleihen mehr unter ihrer alleinigen „monetären Kontrolle“ emittieren können. Integration der Staatsanleihenmärkte im Euroraum sollte daher oberste Priorität erhalten. Eine Möglichkeit wäre, die Souveränität über Euro-Anleihen zu poolen. Alternativ dazu ließen sich, angesichts der Skepsis gegenüber einer Risikoteilung zwischen Mitgliedsstaaten, synthetische Euro-Anleihen einführen, die keine Vergemeinschaftung von Schulden mit sich bringen.

I Introduction

The Capital Markets Union (CMU) project launched by the European Commission (EC) intends to promote the integration of private capital markets with a view to providing more diversified sources of financing for investment. Building a capital markets union would also help to ‘de-risk’ the banking sector, which, according to the CMU architects, has come to play too significant a role in financing the real economy. Moreover, integrated private capital markets and, in particular, a lower degree of home bias in portfolios have been heralded as a means of smoothing asymmetric shocks in a currency union.¹ Some even argue that a CMU might be a legitimate substitute for a fiscal union on those grounds. Whether the CMU can deliver on its promises is open to debate. The endeavors to revive securitization have astounded some commentators who fear that accelerating the financial integration of private capital markets by further developing market-based activities and strengthening shadow bank entities and activities of large banks might increase financial instability, possibly even jeopardizing the goal of de-risking banks (Gabor 2014).

Putting questions about financial stability effects of a stronger integration of private capital markets under the CMU project aside, the top priority market for promoting both financial integration and financial stability would appear to be the sovereign bond market. Euro area sovereign bond markets were enjoying a remarkable integration process, supported by the elimination of exchange rate risk, the harmonization of the collateral framework for government, bonds and the increased use of electronic trading platforms before the crisis hit in 2007/08. In parallel, the share of domestic sovereign debt holdings of euro area banks in their total assets decreased considerably between the year 2000 and September 2008: from about 4.5 percent to slightly below 2 percent in the case of banks in non-stressed euro area countries (Austria, Belgium, Finland, France, Germany and the Netherlands) and from about 9.5 percent to slightly below 3 percent in the case of banks in stressed euro area countries (Greece, Ireland, Italy, Portugal and Spain) (ESRB 2015).

With the resurgence of redenomination risk during the crisis, these markets became fragmented again. Cross-border capital flows were cut back and financial home bias increased. Some sovereigns were faced with self-fulfilling liquidity runs (sudden-stops), that degenerated into solvency problems and contagion. As a consequence of these market dynamics, as well as the economic

¹ For a critique see Dullien (2017).

recessions, the nexus between sovereigns and domestic banks has strengthened again, supported by wide-ranging policy measures that were effective in preventing worse from happening. This notwithstanding, the sovereign bond markets are still inherently fragile because the underlying design features of the euro area that nourish fragmentation (and flight to safety) are not yet fixed. In the event of a sudden surge in redenomination risk, self-fulfilling tensions in the sovereign bond markets might reemerge.

The idea of pooling government debt in some way or other as a means to overcome this fragility has been on the table for years. The Five Presidents' Report sketches the idea of a euro area treasury that could also emit euro bonds with joint liability—once full fiscal integration has been achieved. Given the reluctance to agree on genuine euro bonds, which involves risk-sharing among sovereigns and, hence, a true fiscal union, Brunnermeier et al. (2011) proposed an assumedly less controversial variant of a euro bond, namely European Safe Bonds (ESBies), which would serve as a euro area (or European Union) equivalent to U.S. treasuries. How do they work? A private or public entity purchases a portfolio of euro area sovereign bonds that is diversified according to some rules (e. g. GDP-weighted). To finance this purchase, the agency issues a senior tranche—European Safe Bonds (ESBies)—and a junior tranche—European Junior Bonds (EJBies), e. g. in the relation of 70:30, as proposed by Brunnermeier et al. (2011). ESBies have a safe asset character; the investors into the tranche are guaranteed the interest and principle payments in case a member state defaults. Investors in EJBies, who are willing to take on more risk, receive higher yields, but must accept a haircut if a country defaults. The most obvious advantage of this proposal is that it essentially precludes the highly controversial issue of mutualizing risk among Member States. The risk of a default of a euro area member state is transferred to holders of the junior tranche of ESBs in exchange for the higher yields they achieve.

The ESBies proposal has now found its way into the recently published reflection paper of the European Commission on the deepening of economic and monetary union (European Commission 2017). Following the Commissions' roadmap, the issuance of European safe assets, referred to as 'Sovereign Bond-Backed Securities (SBBS)', is scheduled for the period 2020–2025, i. e. a couple of years after the completion of the CMU project, which should be finalized by 2018.

This contribution makes the point that the integration of sovereign debt markets, alongside with other steps to complete the Economic Monetary Union (EMU) as suggested in the reflection paper, is of utmost importance and urgency. Section 2 gives an overview of the design features of EMU that threaten the stability of the sovereign bond markets and/or financial stability. Against this backdrop, Section 3 considers some recent governance reforms and infers the lack of more fundamental changes. Section 4 assesses how European Safe Bonds might contribute to fixing the design features in Section 2. Section 5 concludes.

2 Design features of the euro area related to governance of finance

The architects of the euro were confident that any balance-of-payment imbalances among euro area members could be financed by private capital flows. Full capital mobility was meant to facilitate adjustments to asymmetric shocks and real convergence. Following the regulation-induced transformation of the European banking system towards market-based business models, the financial system operated as an endogenous shock propagator. Banks expanded cross-border

lending and borrowing (in particular on the global wholesale markets), in some cases fueling unsustainable credit, property and consumption booms. Further, core countries' banks and insurance companies invested in sovereign bonds of the periphery, practically equalizing yields across euro area countries. Even so, the share of euro area sovereign debt holdings of euro area banks in their total assets decreased significantly between 2000 and September 2008: from 6.5 percent to slightly below 4 percent in the case of banks in non-stressed euro area core countries and from 10.5 percent to slightly below 4 percent in the case of banks in stressed euro area countries (ESRB 2015). Then the booms turned into busts. Having been designed to eliminate balance-of-payments crises forever, surprisingly the euro area suffered from speculative attacks and flight to safety. Yet, the "euro crisis" was not due to profligacy of sovereigns, as many continue to misdiagnose. Much rather, the euro crisis was a 'sudden stop' crisis that—with the exception of the Greek crisis—preceded the sovereign debt crisis (Baldwin et al. 2015). The euro crisis is in fact the consequence of a couple of design features of the euro area (De Grauwe 2013).

These features, which are directly related to the governance of finance, are twofold.

Globalized banks—national supervisors: The first design feature relates to the fact that European banks, while rapidly embracing cross-border integration in many cases, remained supervised at the national level under only partially harmonised standards and rules. While this was a major element of the deficiencies in the regulatory architecture before the crisis, it had severe consequences following the outbreak of the crisis in 2007/08: fiscal backstops were provided at the national level and no banking resolution regime that includes the bail-in of debt holders was yet in place. A number of bank bailouts, shifting private losses to the balance sheet of the respective sovereign, weakened the credit standing of several sovereigns. In some cases, this caused the sovereign-bank nexus to strengthen, and the spreads of previously sound sovereigns rose in parallel to those of ailing banks, setting in motion a doom-loop where banking and sovereign crises exacerbated each other. In the United States, it would be unthinkable that problems of regional banks result in rising spreads of regional states because banking supervision and resolution are a federal competence. One of the central aims of the banking union was exactly to reduce the risk of bank bailouts endangering the solvency of sovereigns.

Euro area countries are issuing debt in "foreign currency" given the lack of a common euro debt instrument: Another design feature that still puts severe stress on the stability of the euro area that has not been satisfactorily addressed relates to the fact that the euro area countries are no longer able to issue debt in a currency under their own monetary control (De Grauwe 2013, van Riet 2016). Member States adopting the euro have morphed into 'subsidiary governments' (Goodhart 1998). By now, this feature is widely accepted as lying at the heart of the centrifugal forces of the euro area, while before the start of EMU it was articulated by only a few (see Kotz 2017, van Riet 2017). It is a direct consequence of the divorce between monetary centralization and fiscal decentralization at the nation state level. All euro area countries have their own national central banks that keep their own balance sheets but, unlike "stand-alone countries" like the USA., monetary union member countries issue debt in a currency that their central banks do not control individually. As a result, euro area governments have no direct backing by their national central bank in crisis times and, hence, they cannot guarantee that liquidity will always be available to roll over government debt (De Grauwe and Ji 2013). Thus, sovereign credit of the (weaker) Member States is more exposed to the risk of liquidity runs, contagion and self-fulfilling default. (Conversely, via the sovereign-bank nexus, this has also repercussions for domestic banks, as doubts concerning their exposure to the sovereign may arise more easily, translating into banks' funding problems.)

These governments were then forced to attempt to pro-cyclically consolidate their budgets. Debt deleveraging triggered a downward spiral, as its recessionary impact boosted non-performing loans weighing on new lending, and even worsened the fiscal position. Financial fragmentation via tightened credit supply conditions for the crisis countries that impeded the effectiveness of the transmission mechanism of monetary policy was rising. For example, in times of stress, the lowering of the interest rates of the ECB was not transmitted to retail rates in some countries because financial conditions were tightening.

This destabilising design feature is amplified by the role sovereign bonds play in the market for repurchase agreements (repo). In this market, banks borrow cash loans collateralised with high-quality assets. The repo market, an important setting for shadow banking activities in Europe, connects the fate of sovereigns with the fate of large banks (or non-bank intermediaries belonging to shadow banking entities) that are key nodes in collateral networks (“shadow-fiscal nexus”) (Gabor and Ban 2016). It is usually indicated that banks, together with insurance companies, pension funds and investment funds (and central banks) are key creditors to sovereigns. At the same time, however, sovereign bonds have started to play an increasing role as collateral for banks’ funding. In Europe, the repo market tripled between 2001 and 2008. In 2008, more than 80 percent of EU banks’ collateral consisted of government bonds (International Capital Market Association 2016). Reliance on short-term repos that are to a large part collateralised with government bonds turned sovereign debt into a crucial tool for financing banks’ expansion strategies. Thus, highly liquid sovereign assets became important for ensuring (international) funding in particular for those banks that have a weak deposit base.

At the same time, this makes the 19 individual sovereigns in the euro area dependent on the collateral quality of their debt, which may be disconnected from fiscal sustainability and fundamentals—the familiar narrative. Rather, the fortune of sovereigns hinges, via the repo market, on shocks to short-term funding of global banks, on the tightening or loosening of collateral policies of private repo actors and central banks, further on pro-cyclical ratings, as well as on the amplifying effects of credit default swaps that were driving up interest rates of peripheral countries, thus exacerbating the crisis (Delatte et al. 2012). In a highly liquid and central-bank-backed government bond market, like the U.S. market, this ‘shadow-fiscal nexus’ is probably less relevant. During the crisis, the U.S. treasuries were able to preserve their ‘safe asset’ collateral status. But in a currency union with many sovereigns not backed by their central banks, individual sovereigns are reliant on the actors in the repo market.

As long as bonds of the sovereign are considered (nearly) risk-free and the bank that has borrowed cash against collateral has no funding liquidity problem and is able to repurchase collateral, the shadow-fiscal nexus is a symbiotic one. Banks benefit from the availability of high quality collateral, which in turn provides them with cash at low or no haircuts, and sovereigns benefit from demand for their bonds and minimal spreads and lower refinancing costs. Nonetheless, during periods of market stress, when uncertainty about asset valuation rises and expectations of collateral quality worsen, the nexus becomes disruptive. This constitutes a further channel through which stress in the domestic sovereign bond market may affect domestic banks’ funding problems – one may call it the repo channel or collateral channel.

Conversely, banking sector problems may cause stress in the sovereign debt market, as funding problems of the banks that borrowed against collateral and became unable to repurchase collateral may trigger collateral sales and sudden stops in collateral markets, rendering an adverse impact

on the sovereign debt market. Hence, the repo market has systemic characteristics, as it links market fragilities from sovereigns to banks and the other way round, via collateral obligations. As indicated by Ban and Gabor (2016), pro-cyclical risk management methods of systemic repo actors like clearing houses—such as policies to substantially increase haircuts on sovereign bonds or even stop accepting bonds whose spreads surpassed a certain threshold—actually destabilised sovereign bond markets in Greece, Ireland, Italy, Portugal and Spain triggering a flight to safety between 2010 and 2012. By 2012, the use of Irish, Portuguese and Greek bonds as collateral collapsed to 0.3 percent of total repo collateral (from 3.7 percent in 2008), the use of Italian bonds collapsed by one third to 7.8 percent (International Capital Market Association 2016). Ultimately, the perverse spiral of the crisis was tamed through the implementation of emergency safety nets and monetary policy measures. Eventually, the ECB’s ‘whatever it takes’ stance was decisive in mitigating the flight to safety and in stabilising sovereign bond yields of the stressed economies at a rather low level. This commitment was so effective that markets never tested it.

3 Governance reform in EMU—what has been accomplished?

The crisis has taught Europe that the governance structures of monetary union are in need of an overhaul—in particular in the areas of a fiscal, social and banking union. Having transferred the responsibility for banking supervision and resolution to the European level, with bail-in procedures in place and envisaging a common European Deposit Insurance Scheme (EDIS), the banking union marks the most important milestone in European integration after the creation of EMU. But even if the banking union is completed—with a fiscal backstop to the Single Resolution Fund (SRF) and EDIS in place, the disintegrative forces in the euro area will have been mitigated at best. The banking union helps to prevent banks from infecting their sovereign, as happened immediately after the outbreak of the financial crisis in 2007/08 when private losses of banks were loaded onto sovereign balance sheets.

Ultimately, though, the banking union will just partially sever the fiscal-sovereign nexus because its three pillars do not cover the other side of the loop: the reverse channel—stress in sovereign debt markets affecting the stability of the banking sector—that became more significant during the euro crisis has yet to be addressed. One consequence was less credit availability and/or increased lending rates on loans to the private non-financial sector (Eller and Reininger 2016), which impaired the transmission mechanism of monetary policy. Sovereign risk is transmitted to the banking system through the direct exposure of banks to their sovereigns (home bias), with these bond holdings also being used as collateral for funding (ESRB 2015). In the course of the crisis, banks in both euro area periphery and core countries increased the share of exposure to their sovereigns in their total assets, thus rendering their balance sheets even more vulnerable to increases in sovereign risk premiums or to increases in haircuts on sovereign bonds serving as collateral.

Why did banks invest so heavily in domestic sovereign debt following the global financial crisis of 2008/09? A major reason was the economic recession and the concomitant lack of private sector credit demand plus the tightening of lending standards and credit supply, amidst economy-wide deleveraging efforts. A further rationale for the increase in home bias was redenomination risk and the fear of a euro area breakup. In particular, peripheral banks absorbed much of the public debt investors were selling to reallocate their portfolio towards core countries. Hence, in a pe-

riod of sovereign market stress, purchasing instruments issued by one's own sovereigns may counteract the effects of short-termism and panic selling (Lanotte et al. 2016). The Eurosystem's long-term refinancing operations also provided peripheral banks with liquidity to increase their sovereign exposure.

Given the increase of banks' exposures to domestic sovereign bonds in the wake of the crisis, some are advocating—as a further element of the banking union—a change in banking regulation in order to help break the sovereign-bank nexus. Motivated by the fact that between 1950 and 2010 no advanced OECD country defaulted on its domestic debt (Reinhart and Rogoff 2011), at present, the exposure of euro area banks to euro-denominated euro area sovereigns is subject to no concentration limits and to a zero risk weight regime (provided that—in regulatory terminology—these banks make use of the standardised approach and refinance these positions in euro). Since no sovereign exposures can be considered completely risk-free, it has now been suggested to assign these exposures a non-zero risk weight and/or subject them to concentration limits to dis-incentivise holdings of domestic government bonds (ESRB 2015). This proposal has faced hefty criticism (see Lanotte et al. 2016): The strengthening of the nexus is rather a symptom of the crisis and not its cause, and in some countries the nexus started to weaken again in the last two years. Further, introducing non-zero risk weighting might be dangerously pro-cyclical, reinvigorating tensions in the euro area that have been painstakingly contained. It should be noted that during the self-fulfilling crises related to undue fears of a euro area breakup, banks and other intermediaries in the stressed economies were playing a stabilising role, counteracting the effects of short-termism and panic selling. Another concern is that pro-cyclicality would be exacerbated if the risk weight of the sovereign is determined on the basis of credit ratings provided by credit rating agencies that played a crucial role in amplifying previous financial crises (Kotz and Schäfer 2013).

To sum up, the banking union is a very important step towards eliminating the institutional shortcomings stemming from the fact that euro area banks (partly operating in multiple jurisdictions) continued to be supervised by national authorities under only partially harmonised standards and rules. This should prevent sovereigns being adversely affected from troubled banks. The banking union, however, does little to alleviate the reverse channel of the sovereign-bank nexus—that banks' balance sheets deteriorate because of rising sovereign bond spreads. Further, it does not address the adverse effects from the 'fiscal-shadow' nexus. The fundamental design feature of sovereigns issuing debt in a currency their central banks cannot control has not been addressed sufficiently. To limit those effects, further options would be—to give a few examples—enhanced regulation commanding countercyclical collateral policies, financial transactions taxes for repo transactions, taxation of repo-based bank liabilities, or, more far-reaching, providing backstops for repo markets or pooling sovereignty via euro bonds. The latter is probably the most effective cure of some of the institutional shortcomings of the euro area.

4 Synthetic euro area sovereign bonds

Various Eurobond proposals have been made that differ in scope, degree of substitution of national issuance and the nature of the underlying guarantee, and they have different effects on interest rates, the necessity for fiscal centralization and moral hazard. Moral hazard refers to the risk that those who profit from the credibility of the stronger countries become complacent and

reduce their effort to conduct sound fiscal policies. This is probably the most important obstacle for pooling debt in the euro area. As Eurobonds involve mutualization of risk among Member States, some kind of tight fiscal surveillance and the partial transfer of fiscal sovereignty to the euro area level are essential elements of these proposals.

While Eurobonds pool euro area sovereign bonds and at the same time entail the creation of a joint liability system across Member States, a proposal has been made for issuing synthetic euro area bonds (Brunnermeier et al. 2011) that do not require the mutualization of risk. Each government would remain responsible for its own solvency, as its bonds would be traded at market prices, exerting corresponding discipline. This is an attractive feature because at the current juncture risk-sharing among sovereigns does not seem to have sufficient political support.

Following the proposal by Brunnermeier et al. (2011) a common safe sovereign asset is engineered by using the techniques of securitization, diversification and tranching. A special purpose vehicle (SPV) managed either by a public or a private sector entity purchases a portfolio of government bonds from euro area countries, weighted by euro area countries' relative GDPs or the contributions of their central banks to the ECB's capital. This portfolio of single sovereign bonds and hence liquid underlying assets is used to back the simultaneous issuance of two tranches: a large tranche of European Safe Bonds (ESBies) that are secured by cash flows from the pool of government bonds and a smaller tranche of European Junior Bonds (EJBies) with a junior claim on these payments. In the unlikely event that a euro area sovereign were to default on its bonds, the ensuing losses would first be borne by holders of the junior tranche and not by the SPV, the European Union or the Member States. In the highly unlikely case that all holders of the EJBies tranche were to be wiped out, holders of ESBies would have to bear losses as well. Obviously, the fraction of the total volume of ESBies and EJBies that is issued as EJBies (junior tranche), which is termed the subordination level, is an important parameter. If this fraction is set at only 10 percent instead of 30 percent, just to give an example, the risk (in terms of expected loss) of the junior tranche and the required yield on this tranche would be higher—and the same would be true for the senior tranche. By contrast, choosing a fraction of 30 percent for the junior tranche would render the ESBies very safe (roughly similar to German bunds), making also the EJBies safer, but their yields less attractive.

By creating a large pool of safe assets, ESBies have many of the advantages of euro bonds. First, they stabilise sovereign bond markets and help to weaken the sovereign-bank nexus and enhance financial stability. Likely holders of the junior tranche would be intermediaries that aim at earning higher yields on a fraction of their portfolio by incurring only moderately higher risk, such as insurance companies, mutual funds, and hedge funds. In general, banks are more likely to hold senior tranche bonds, for use as collateral in repo operations to improve their funding position. Even more so, if the senior tranche is eligible as collateral for Eurosystem refinancing operations, as suggested by Brunnermeier et al. (2016) and Corsetti et al. (2015). Swapping single government bonds of their own country with a diversified portfolio of government debt would help to significantly decrease the fragmentation of sovereign bond markets, reduce the home bias in banks' sovereign exposures and weaken the adverse feedback loop between sovereigns and banks. Moreover, the risk of renewed financial fragmentation along national lines declines as destabilising capital flows in a risk-on and risk-off mode between euro area countries are likely to be contained and substituted by capital flows across asset classes.

Second, in general, safe assets are of great value for central banks: For their monetary policy operations as well as for the security of their payment and settlement systems. Moreover, they need the safe asset yield curve as a vehicle for monetary transmission to financing conditions in the economy (van Riet 2017). This should support the efficiency of the implementation of monetary policy, whose transmission mechanism was impaired during periods of stress.

Third, ESBies will overcome the scarcity of safe assets in Europe and may provide a common liquid (almost) risk-free debt instrument, similar to U.S. treasuries. In financial systems that strongly rely on capital market activities (including repo transactions), assets that are relatively safe compared to other financial claims play a crucial role for the smooth functioning of these markets and, hence, for those institutions, like commercial banks, participating in these markets.

ESBies have many of the advantages of euro bonds but they do not involve additional funding and risk-sharing by Member States—the latter being a major obstacle against euro bonds. Do they involve moral hazard, a related concern that might hold back political support of lower-debt countries for pooling debt? Purchases by a debt agency are capped at a certain percentage share of the respective country's GDP. Any debt above this threshold is not securitised and potentially subject to higher yield spreads. Thus, markets may punish fiscal profligacy, and moral hazard can be contained. Nonetheless, concerns have been raised that in more indebted Member States, whose public debt will to a larger degree remain unsecuritized, sovereign spreads may increase—not so much as a consequence of financial markets sanctioning unsound fiscal policies, but because demand for single, unsecuritized sovereign bonds (e.g. for use as collateral) will fall as they may be largely replaced by ESBies.² However, one may argue that ESBies and EJBies can be expected to stabilise total demand for euro area sovereign bonds and, thus, mitigate the risk that spreads of national government bonds outstanding may widen again as they did during the euro crisis, because the continuous demand for national sovereign bonds from the SPV which—*ceteris paribus*—will most likely raise bond prices and lower yields. The SPV needs to roll over a considerable part of its holdings in order to maintain a diversified portfolio of national sovereign bonds of different maturities. The continuous purchases of national sovereigns by the SPV will most likely contain risk premiums in national sovereign bond markets in general. Further, it is important to emphasize that the issuance of ESBies and EJBies will be limited in volume, and that the demand for these bond volumes will only partially come from demand that hitherto aimed at purchasing single government bonds of euro area sovereigns. Another part of demand for these bonds will be additional demand being attracted precisely because of the unique features of these new products. In other words, there will be not only a substituting effect, but also an investment-enhancing effect.

The ESBies proposal has been criticised for repeating the errors of the crisis by structuring a securitised product. However, both ESBies and EJBies differ from the securitised financial instruments that were at the centre of the financial crisis, because the underlying assets of both senior and junior tranches are highly liquid, transparent government bonds. These underlying assets are not at all comparable to the bundle of a vast number of (partly non-performing) illiquid, opaque mortgage or student loans used as underlying in the case of many usual structured

2 Minenna, Marcello, Why ESBie won't solve the euro area's problem. Financial Times Alphaville. April 25, 2017. http://marcello.minenna.it/wp-content/uploads/2017/04/20170425_FT.pdf

products, in particular those issued before the crisis. As a result, one may clearly state that ESBies are high-quality non-opaque securitised assets.

Another concern often raised is that the fundamental problems of the euro area related to the lack of substantial real convergence and competitiveness in some countries as well as the asymmetry in adjustment of imbalances cannot be solved with financial engineering. True, (synthesised) euro bonds are only one part of numerous, complementary reforms of the euro area's architecture as discussed in the European Commission's reflection paper on the euro area. Also, they should not substitute existing and envisaged backstops and safety nets. But it is important to note that introducing (synthetic) euro bonds is an indispensable prerequisite for the sustainable success of other envisaged reforms.

5 Conclusion

The euro area was built around a single currency and a multiplicity of sovereigns issuing debt instruments in a 'quasi-foreign' currency, given the fact that any lender-of-last-resort support to sovereigns is legally and politically constrained—even in times of severe economic and financial crisis. This design feature introduces an element of fragility into euro area government bond markets, making them vulnerable to liquidity runs during crises. This is exacerbated by the importance of the repo market that connects the fate of sovereigns with the fate of large banks and non-bank intermediaries that are part of the shadow banking system. Since government bonds are the most important collateral in market-based wholesale funding for banks in Europe, the sovereign debt market is inexorably linked to the pro-cyclical shadow-banking activities of large banks. Given the lack of a euro area-wide low-risk asset that may serve as collateral, this two-way transmission channel is fraught with an additional element of instability.

Introducing euro bonds is one effective option to mitigate this fragility inherent in the euro area's monetary union—it would be an essential complement to the banking union. The ESBies proposal circumvents the political difficulties related to the various euro bond proposals on the table that all involve some potential risk-sharing between Member States that would, according to opponents, require a true fiscal union. ESBies work without the mutualization of debt. The risk of a default of a euro area member state is transferred to holders of the junior tranche of ESBies, who in turn receive higher yields. It is important to note that pooling national sovereign bonds would benefit all countries in the form of enhanced investor demand, a liquidity premium and added stability of the euro area as a whole. However, high-rated member countries are expected to profit less from their 'safe-haven' status.

ESBies fulfil various objectives: they help to mitigate the risk of destabilising intra-area capital flows, increase financial stability, facilitate the monetary transmission mechanism across the euro area, and finally may provide a highly liquid European safe asset category similar to the U.S. treasuries. Integrating the sovereign bond markets in the euro area, whose fragility potentially threatens the viability of the euro area and encourages centrifugal forces, is the *conditio sine qua non* for the potential success of other reforms envisaged, such as the CMU project. Thus, improving a basic design feature of the euro by integrating euro area sovereign bond markets should be given high priority.

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