

European financial architecture and the European safe asset speech by Vítor Constâncio at the Conference on European Financial Infrastructure in the face of new challenges, Florence 25th of April 2019

I am grateful for the invitation to participate in this timely Conference on such an important topic. I will concentrate on the problems of the last two sessions connected with the problems of national sovereign debt in a monetary union. As we all know this issue is at the centre of potential difficulties in forming a monetary union among heterogenous and previously sovereign States.

This stems from the demotion of national sovereign debts as countries no longer have their own central bank to ultimately assist them in case of liquidity stress in the market for bonds denominated in their own currency. Notice the two provisos in that sentence: last resort intervention and naturally only for debt denominated in national currency. This means that for vulnerable small countries, significantly indebted in foreign currencies, outside a monetary union, having their own central bank would not solve their predicament in case of severe market pressures. In any case, in a monetary union the uncertainty about whether the single central bank would intervene or not is enough to increase the fragility of members' sovereign debt. In a monetary union this is compounded by the fact that investors can move from a member's country debt to the debt of another member without incurring additional exchange rate risk. All these circumstances open the possibility of pure liquidity squeezes, sudden-stops, speculative attacks and contagion that create redenomination risk or without the euphemism, the threat of countries leaving the monetary union. Allowing prices and yields progress to levels not justified by fundamentals without a response, may put into question the whole monetary union. These market reactions are well illustrated in several models of sovereign debt with default risk ¹ in particular those that allow multiple equilibria ². Any significant crisis may trigger these problems

Charles Goodhart had already warned back in 1998 in his classic paper on two concepts of money and optimal currency areas ³: "Whenever states (as in the US or

¹ See Corsetti, G., L. Dedola, M. Jarocinski, B. Mackowiak and S. Schmidt (2016), "Macroeconomic stabilization, monetary-fiscal interactions and Europe's monetary union", ECB Working Paper 1988; Corsetti, G. and L. Dedola (2016), "The mystery of the printing press, monetary policy and self-fulfilling debt crisis", *Journal of the European Economic Association*, 14(6): 1329-1371; Lorenzoni G. and I. Werning (2013), "Slow moving debt crises", National Bureau of Economic Research Working Paper 19228.

² See Jarocinski, M. and B. Mackowiak (2017), "Monetary-fiscal interactions and the euro area's malaise", European Central Bank Working Paper 2072. The authors show that "when monetary and fiscal policy are conducted as in the euro area, output, inflation, and government bond default premia are indeterminate according to a standard general equilibrium model with sticky prices extended to include defaultable public debt. ... We specify an alternative configuration of monetary and fiscal policy, with a non-defaultable eurobond. If this policy arrangement had been in place since the onset of the Great Recession, output could have been much higher than in the data with inflation in line with the ECB's objective."

³ Goodhart, C. (1998), "The two concepts of money: implications for the analysis of optimal currency areas" *European Journal of Political Economy* 14 (3): 407-432.

Australia), provinces (as in Canada), cantons, Länder, etc. have joined together in a larger federal unity, both the main political, the main fiscal and the monetary powers and competencies have similarly emigrated to the federal level. The Euro Area will not be like that. In particular, the participating nation states [...]; in the monetary field, their status will have changed to a *subsidiary* level, in the sense that they can no longer [...] call upon the monetary authority to create money to finance their domestic national debt. There is to be an unprecedented divorce between the main monetary and fiscal authorities”.

The far-reaching consequences of this were not properly considered at the time. In 2012, talking about the gaps in the European monetary union, Christoffer Sims wrote in the same vein: “The combination of a treasury that issues fiat-currency debt and a central bank that can conduct open market operations provides a uniquely powerful lender of last resort. The euro as originally structured seemed to require the elimination of national-level lender of last resort functions for central banks, without creating as strong a replacement at the European level”.⁴ He also warned that a narrow interpretation of the framework “would return Europe to something akin to the gold standard, with no lender of last resort, no inflation cushion against extreme shocks, and an implicit euro area bankruptcy court exacting sacrifices from delinquent debtors. It is not clear that the member nations thought this was what they were signing up for”.

Paul de Grauwe (2011a, 2001b, 2011c) and Willem Buiter (2012)⁵ talked about a fragile euro area and called for the creation of a lender of last resort that could deal with sudden liquidity crisis in the markets of national sovereign bonds.

After the Deauville episode⁶ and the early talk about the Greek debt restructuring, financial markets in 2001 attacked Italian and Spanish sovereign bonds without any change in their fundamentals, showing the outcome of a domino effect that threatened to ultimately reach some core countries as a result of widespread contagion. In this perspective, talking about contagion, I highlighted in Constâncio (2011)⁷: “...besides general risk aversion and own credit risk also the Greek credit rating affected other euro area countries’ bond spreads in a statistically significant way, in a small magnitude for some countries such as France and in a larger magnitude for other countries such as

⁴ Sims, C. (2012), “Gaps in the institutional structure of the euro area”, in Banque de France Financial Stability Review, No. 16, April 2012, pages 217 -223.

⁵ See de Grauwe, P. (2011), “The Governance of a Fragile Eurozone”, CEPS Working Document No. 346, May; de Grauwe, P. and Y. Ji (2013), “Self-Fulfilling Crises in the Eurozone: An Empirical Test”, *Journal of International Money and Finance*, 34: 15-36; Grauwe, P.(2011), “The European Central Bank: lenders of last resort in the Government bond markets?”, CESiFO Working Paper 3569, September; Buiter W. and E. Rahbari (2012), “The ECB as lender of last resort for sovereigns in the Euro Area” CEPR Discussion Paper 8974.

⁶ The Deauville episode refers to the French-German agreement to organize Greek debt restructuring held by the private sector, announced 1n October 2010 after a meeting between the German Chancellor and the French President.

⁷ See Constâncio, V. (2011), “Contagion and the European debt crisis”, lecture by Vítor Constâncio, Vice-President of the ECB at the Bocconi University/Intesa Sanpaolo conference on “Bank Competitiveness in the Post-crisis World” Milan, 10 October 2011.

Ireland, Spain, Italy or Portugal". The European monetary union was clearly facing then an existential crisis.

This reality of contagion beyond data fundamentals, illustrates well how a monetary union is a joint endeavour that must have a robust framework that entails collective responsibility and some forms of risk sharing or collective insurance. This points to an important misconception in the initial design of our monetary union, corresponding to the notion that it would be enough to create a single currency and a fiscal brake to ensure a smooth functioning of the new currency area, provided each member country authorities would behave responsibly. The financial crisis cruelly exposed this misconception of thinking about monetary union as a sort of vast currency board with many peripheral countries. In turn, this was inspired by wrong macroeconomic views. First, the idea that monetary policy exclusively dedicate to inflation control is enough to ensure both economic and financial stability, therefore dispensing fiscal or any other type of macroeconomic policy. Second, that the financial sector is not capable of generating fluctuations in the real economy. Third, that only public debt can destabilise the system whereas private debt cannot as the private sector economy is self-equilibrating. On the contrary, history of past financial crises in advanced economies finds that "private credit booms, not public borrowing or the level of public data, tend to be the main precursors of financial instability in industrial countries" ⁸.

That is exactly what happened in the Euro Area up to 2008. The original vision ignored that a monetary union triggers a strong financial integration that can go wrong with possible volatile capital flows and a "sudden stop" under the impact of an international shock that generated a banking crisis requiring public bailouts followed by a sovereign debt crisis and a double dip recession in 2012-2013. In spite of all the important institutional reforms introduced on the wake of the crisis it is easy to see that monetary union is still incomplete without an overall fiscal stabilisation tool implying a certain degree of fiscal union; that banking union is also incomplete without a deposit guarantee scheme and with the existing ring fencing regarding circulation of bank capital or liquidity; and, finally, that the a Capital Markets Union /CMU) is inexistent and not seriously pursued.

These three aspects are the more important missing monetary union's infrastructures: a stabilisation function that treats the single monetary territory as a single economic space that requires an adequate macro policy mix; a full functioning banking union and a deeply integrated capital market.

⁸ See Jordá, O., M. Schularick, and A. Taylor (2016), "Sovereigns versus banks: credit, crises and consequences", *Journal of the European Economics*, 14 (1):45-79; Schularick, M. and A. Taylor (2012), "Credit booms gone bust: Monetary policy, leverage cycles, and financial crises, 1870—2008", *American Economic Review*, 102(2), 1029—1061.

Naturally, the absence of these conditions should not preclude the necessary consideration of the problem of potential sovereign debt fragility that was my starting point. The difficulty in addressing it lies in creating mechanisms that, first, defend the monetary against imbalances, liquidity squeezes, speculation and contagion and, second, achieve that goal without allowing free-riding by country members.

The first problem would ultimately be solved by a Fiscal Union and/or Eurobonds with mutualisation of debts, both requiring completing Monetary Union with a higher degree of Political Union. While that is not possible, the alternative of conditional financial assistance by a crisis mechanism like the ESM may confront the possible difficulty of the vulnerable country being too big for the resources available to the lending entity. Another alternative is, as Eichengreen puts it, to have a “normal central bank” that, while ensuring price stability, acts as liquidity provider to credit institutions and markets via open market operations that the Treaty foresees. The ECB made progress in that direction during the crisis in creating a programme, the OMT, to conduct interventions, subject to conditionality, in the sovereign debt market when a liquidity stress leads to market valuations clearly deviated from the economic fundamentals. From now on, the ECB will have no excuse to not fulfil its mandate in addressing the impairment of the single monetary policy transmission by intervening in the sovereign bond market when markets go well beyond what fundamentals would justify, accompanied by the conditionality of an ESM precautionary or full-fledged programme.

Dealing with the second problem of avoiding free-riding by member States, requires a fiscal rule, financial assistance with conditionality and, ultimately, the possibility of debt restructuring. These three conditions already exist in the Euro Area and have all been used with varied degree of success. However for some countries the debt restructuring element needed to be further reinforced or facilitated. They obtained two significant changes in the December Summit. First, The introduction of single limb clauses in sovereign debt issuance which is a simple improvement that had consensual support. The second one was a surprising change in the regime regarding the debt sustainability analysis previous to any ESM programme, from being the sole responsibility of the independent EU Commission to become a cooperative exercise with the ESM, a pure intergovernmental body and as such an unavoidably more politicised one. What was avoided in the end were proposals to introduce any sort of automatism with threshold indicators or a formal SDRM would be quite destabilising, contributing to aggravate potential redenomination risks that would be detrimental to banking union and capital markets union. In any case, the main obstacle to applying a debt restructuring as a disciplinary device is the excessive concentration of some banking sectors' portfolio on domestic sovereign debt. The consequences for banks of a debt restructuring could be devastating and huge public recapitalisations would be required as it happened in the case of Greece, implying additional debt. By now, after many discussions and several

papers it should be clear that the only solution to this problem that avoids major turbulence in national debt markets is the introduction of a European safe asset that can be used to substitute those domestic bonds in banks' portfolios.

The encouraging thing about this conclusion is that the creation of such European safe asset would also be important for several other relevant objectives of the European financial architecture. Emphatically, I think we can say that:

- 1) Without a European safe asset, there will not be a solution to the question of the banks-sovereign nexus, important for the stability and robustness of the European banking system
- 2) Without a European safe asset, the scarcity of secure assets will increase the temptation for the private sector to create pseudo-safe assets as it happened before the crisis, potentially endangering financial stability and the real economy
- 3) Without a European safe asset, there will not be a complete, flourishing capital markets union so important to stimulate growth and provide private risk sharing in a monetary union.
- 4) Without a European safe asset there will not be a fully integrated European bond market which is crucial to foster the international role of the euro
- 5) Without a European safe asset, monetary policy cannot benefit from a more representative European yield curve and more appropriate assets to purchase in open market operations that will be necessary even in normal times in the future.

Additionally, the creation of a European safe asset would have also a confidence boost effect on the monetary union project, deepening financial integration and contributing to mitigate redenomination risk.

Starting with the first point it is worth noting that the literature points to some good reasons for a certain dose of home-bias that is empirically well documented. Those reasons are: information advantages; hedging against real exchange moves or redenomination risk; costs of foreign assets trading and behaviour biases.⁹ However, it is indisputable that the credit risk situation of sovereigns can negatively affect banks when they own significant portfolios of domestic sovereign debt. Nevertheless, the influence of the sovereign status on national firms, both banks and non-banks, seems to be similar through the powerful effect that a sovereign in difficulties spreads to the whole economy.¹⁰ For instance, over time, for European countries, CDS premia of non-financial firms and banks are impacted in a similar way by the sovereign credit rating

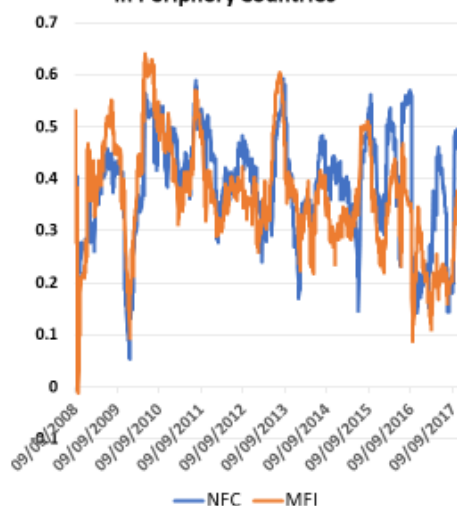
⁹ See Coeurdacier, N. and Hélène Rey (2013) "Home Bias in Open Economy Financial Macroeconomics" *Journal of Economic Literature*, Vol. 51, No. 1 pp. 63-115

¹⁰ Horny, G., S. Manganelli and B. Mojon (2016), "Measuring financial fragmentation in the euro area corporate bond market", Banque de France Working Paper 582.

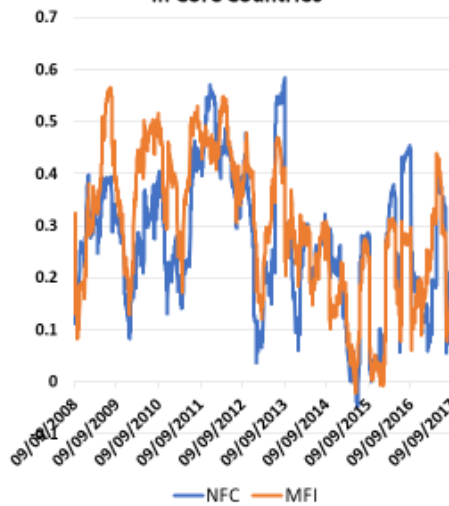
fluctuations, both in core or peripheral countries. (see Chart 1, portraying 60 days rolling correlations of NFC and Banks CDS premia from June 2008 to October 2017).

Banks-Sovereign Nexus and the European safe asset

Average 60 days rolling correlations of NFC's CDS and MFI's CDS with Sovereign CDS in Periphery Countries



Average 60 days rolling correlations of NFC's CDS and MFI's CDS with Sovereign CDS in Core Countries



Sources: 5y senior CDS spreads from Datastream for June 2008 to October 2017. Periphery countries : IT,ES,IE,PT,GR and Core countries: DE,Fr,NL,AT,BE,LU,FIN. Author calculations.

This implies that diversifying those banks' portfolios would not necessarily avoid a significant impact of sovereign difficulties on banks. However, it is true that in a robust monetary union, home bias should be smaller. I have developed elsewhere ¹¹ the arguments against using harsh quantitative limits or heavy capital charges to force banks to diversify their portfolios away from domestic sovereign bonds, underlying three aspects: a) there would be an immediate surge in rollover risk. Countries with high rollover requirements (some with annual hundreds of billions) cannot quickly change their investor's composition. They have naturally to rely heavily on existent debt owners renewing their holdings; b) Induced diversification to other European sovereign bonds is very likely to increase the balance sheet risk of most banks in the Euro Area; c) That induced diversification does not improve the tail risks either for single countries or for the EU banking system.

These last two points are made very clear in two recent papers. In Giuzio, M., B. Craig, and S. Paterlini (2016)¹² we can read: " Using a sample of 106 European banks included in the EBA stress testing dataset over the period June 2013 to December 2015, we find that a diversification requirement such as the ones proposed can actually

¹¹ Constâncio, Vitor (2018) " Completing the Odyssean journey of the European monetary union" at <https://www.ecb.europa.eu/press/key/date/2018/html/ecb.sp180517.en.html>

¹² Giuzio, M., B. Craig, and S. Paterlini (2016), "Effects of diversification and capital buffers on the EU sovereign- bank networks", mimeo

increase the risk of the resultant portfolios, while having little effect on the tail-risk or contagion risk. Given that the reduction of risk is a major reason for a costly diversification requirement, results suggest caution before their adoption.... Using simple rebalancing rules, we find that the likely portfolios that result from such higher diversification requirements will generally increase the risk of most banks in the Euro area.” Analyzing the tail risk of portfolios, the authors conclude that: “the rebalanced and current portfolios show similar levels of tail risk, both for single countries and for the EU banking system, which means that rebalancing portfolios to increase diversification may be inefficient, even when correlation between sovereigns’ defaults is higher, as during a crisis.”

There is also an ESRB paper by Alogoskoufis and Langfield (2018), calculating the effects of several measures, from limits to concentration charges, concludes that “... our numerical simulations indicate that there is a fundamental tension between lowering concentration and lowering credit risk in the absence of an area-wide low-risk asset. ... None of the reforms unambiguously achieve both”

This should be decisive to conclude that the only non-disruptive viable solution to the doom loop problem is diversification via a European safe asset.

The second advantage I mentioned was related with the particular role safe assets play in our modern financial systems. Being almost without credit risk, immune to asymmetric information and adverse selection, safe assets are good stores of value, have a role in the means of exchange for financial transactions and are used as collateral for borrowing. The crisis accentuated the trend towards a financial system that is increasingly collateralised and where the shortage of safe assets can have widespread undesired effects as emphasised by Gorton, Caballero and others. Understanding the crisis implies the recognition that there is a specific demand for safer assets as something distinct from demand for money or for simple pledgeable liquid assets ¹³. This feature justifies the existence of a so-called “convenience yield” , a safe liquidity premium that Krishnamurthy and Vissing-Jørgensen (2012) have calculated in the dozens of basis points for US Treasuries ¹⁴.

Gary Gorton and co-authors ¹⁵ have described and modelled how these developments preceded and promoted the expansion of a shadow banking system as a market-based

¹³ See Golec, P. and E. Perotti (2017) “Safe assets: a survey” ECB wp n. 2035, see also Gorton, Gary (2016) “ The history and economics of safe assets” NBER wp n. 22210.

¹⁴ Krishnamurthy, A. and A. Vissing-Jørgensen (2012) “ The impact of Treasury supply on financial sector lending and stability” *Journal of Political Economy*, 118, 571-600

¹⁵ Gorton, G. and He (2016) “ Optimal monetary policy in a collateralized economy” NBER wp 22599; see also Gorton, G and G. Ordoñez (2014) “ Collateral crises” *American Economic Review Papers and Proceedings* 102: 101-106.; Gorton, G and G. Ordoñez (2013) “ The supply and demand for safe assets” NBER wp 18732

new credit system that was behind the crisis. This shadow banking is more than just a collection of institutions but is rather a set of activities related to the emergence of very sizeable cash pools that could not find safety in capped banks' insured deposits and were looking for safer ways of placing that cash in the short term¹⁶. Secured collateral lending and repos as well as risk transformation via swap derivatives (credit, interest rates and forex) were developed for that purpose.

The quasi-safe private assets were created to overcome a shortage of proper safe asset like government bonds or insured deposits. Gorton and He (2016)¹⁷ model precisely how the increase in the ratio of private asset-backed securities to Treasuries induces financial fragility and, ultimately, financial crisis when the pseudo-safe private assets collapse. Excessive securitization and repo activity with re-use and re-hypothecation of securities were at the center of the process. The creation of inside liquidity by repos was important for the funding of the housing bubble¹⁸ Gorton and He suggest that monetary policy, through open market operations should respond to that ratio of ABS over Treasuries, thus introducing a financial stability mandate to central banking. Concerns with the shortage of safe assets facing a growing demand, are also behind the financial stability proposal of Greenwood, Hanson and Stein (2015)¹⁹ to keep central banks' balance sheet bigger than before the crisis in order to counter the temptation of the private sector to embark into the creation of its own safe assets.

These approaches underline the role of the safe asset shortage in contributing to financial instability and crises. On the other hand, the series of papers by Caballero, Fahri and Gourinchas²⁰ model predominantly the role of the safe assets' shortage after the financial crisis started and securitisation contracted. The demand for safe assets grew, their prices increased and yields declined, providing a significant explanation for

¹⁶ See among others, Shin H.S. (2009), "Financial Intermediation and the Post-Crisis Financial System", *BIS Annual Conference*; Adrian T., H.S. Shin (2009), "The Shadow Banking System: Implications for Financial Regulation", *Banque de France Financial Stability Review* 13:1–10; Pozsar Z., T. Adrian, A.B. Ashcraft, H. Boesky (2010), "Shadow Banking", *Federal Reserve Bank of New York Staff Report* 458; Claessens S, Z. Pozsar, L. Ratnovski and M. Singh (2012), "Shadow Banking: Economics and Policy", *IMF Staff Discussion Notes* 12/12; Mehrling P., Z. Pozsar, J. Sweeny, and D. Neilson, (2013) "Bagehot was a Shadow Banker: Shadow Banking, Central Banking and the Future of Global Finance", *Institute of New Economic Thinking*; Constâncio, Vitor (2014) Beyond traditional banking: a new credit system coming out of the shadows" at ; Claessens S. and L. Ratnovski (2014), "What Is Shadow Banking?" *IMF Working Paper* 14/25.

¹⁷ Gorton, G. and He (2016) "Optimal monetary policy in a collateralized economy" NBER wp 22599

¹⁸ See Bayoumi, T. (2017) "Unfinished Business: The unexplored causes of the Financial Crisis and the lessons yet to be learned", *Yale University Press.*, page 73

¹⁹ Greenwood R., S.G. Hanson and J. C. Stein (2015), "A Comparative-Advantage Approach to Government Debt Maturity," *Journal of Finance* 70, (4), 1687-1718.

²⁰ Caballero, R. and E. Fahri (2017) "The safety trap" in *The Review of Economic Studies*, Volume 85, Issue 1, 1 January 2018, Pages 223–274 (existed since 2014 as NBER wp19927); Caballero, R., Farhi, E., and P-O Gourinchas (2017) "The safe assets shortage conundrum" *Journal of Economic Perspectives—Volume 31, Number 3—Summer 2017—Pages 29–46*; Caballero, R., Farhi, E., and P-O Gourinchas, (2008) "An Equilibrium Model of 'Global Imbalances' and Low Interest Rates." *American Economic Review*, 98(1), pp. 358-393; Caballero, R., Farhi, E., and P-O Gourinchas (2015) "Global Imbalances and Currency Wars at the ZLB." Harvard mimeo.

the collapse of medium to long term interest rates. During a first period, this decline of interest rates provided the equilibrium of the demand and supply of safe assets. Approaching the zero lower bound, interest rates can no longer play that role which is then provided by output deceleration and recession. The shortage of safe assets produces a negative effect on the real economy. Another collateral damage is the temptation for countries to use currency wars to fight for external demand that could compensate for the domestic recessionary trend. The safety trap can be persistent and from this perspective joins elements of the secular stagnation narrative. In this context, effective policies must implicate an increased supply of safe assets, either through additional public debt issuance or forms of QE (quantitative easing) involving swaps of private assets for safer central bank reserves thus lowering risk premia. Either forward guidance or simple changes in duration through some type of “operation twist” would not be effective in this framework. It should also be mentioned that any non-Ricardian general equilibrium model will show that issuance of more public would help interest rates to increase towards normalisation.²¹

A European safe asset would expand the supply of safe assets in a significant way thereby providing the benefits just mentioned. Since the crisis, safe assets, represented by triple A rated sovereign bonds have declined from 2.8 trillion euros in 2008 to 1.8 trillion today. According to the Leandro/ Zettelmeyer calibration the main proposal in discussion for a new safe asset could practically double the present size of that market to 3.5 tr²².

In third place, introducing a European safe asset serves another major goal in fostering financial integration and a full Capital Markets Union (CMU). The crisis made it clear that deep financial integration, creates risks, but generates interdependences and mechanisms that are conducive to indispensable collective action to face potential EMU existential crises. CMU provides risk sharing mechanisms which can reduce the impact of country-specific shocks and contributes to macroeconomic stability. Internationally diversified portfolios – cross-regional and cross-border asset holdings, including firm ownership claims – are more resilient to global and local shocks and can mitigate the impact of such adverse scenarios. Perhaps even more important, CMU is also essential to foster economic growth. Integrated capital markets provide a wider source of financing and lower funding costs for households and firms and ultimately support innovation and increased productivity. A European safe asset is necessary for the creation of an integrated, deep and liquid European bond market as a central piece of CMU. A single

²¹ See Kocherlakota, N. (2015) “Public debt and the long-run neutral real interest rate” at <https://www.minneapolisfed.org/news-and-events/presidents-speeches/public-debt-and-the-long-run-neutral-real-interest-rate>

²²This number results from taking the 51% of the present 1.8 tr not used for the Ebonds and adding 2.6 tr of the maximum EBonds issuance estimated by Leandro, A. and J. Zettelmaeyer (2018) “ The search for a Euro Area safe asset” CEPR DP 12793, March and Leandro, A. and J. Zettelmaeyer (2018) “ Safety Without Tranches: Creating a ‘real’ safe asset for the euro area” CEPR Policy Insight n. 93, June.

term structure of risk-free interest rates could serve as a euro area pricing benchmark for the valuation of assets, especially for securities linked to activities where sectoral considerations dominate country ones. As I recently wrote, “ It is a big waste to have taken the huge step to adopt a single currency and continue to forgo the benefits that could be reaped by creating a true banking and capital markets union. I believe that euro area countries should forge ahead in enhanced co-operation in order to achieve CMU more rapidly.”²³

Linked with the materialisation of CMU is the question of fostering the international role of the euro, an objective that should be assumed as part of the European participation in the international power game. It is true that, in general, the European construction has developed under the umbrella of the Pax Americana and therefore separated as much as possible from an autonomous role in the international power game. Dealing with the economic goals of its own well-being and exerting a discrete soft power in a multilateral system as an example of peaceful integration, have defined the limits of the European ambition. The recent geo-political transformations have exposed this comfortable position. The shattering of multilateralism by the US transactional politics, the Russian destabilizing role and the Chinese economic expansionism, must change the strategic thinking of the European project. In this context, monetary union coupled by a real integrated European capital market with sufficient depth and liquidity would give the euro a significant international role representing a powerful instrument of European independent affirmation.

A final aspect underlying the importance of a European safe asset, relates to the benefits that monetary policy can reap from its introduction. Currently, the ECB uses and publishes two yield curves, one for an average of triple A sovereign debt and another related to all countries. The first includes only a few countries, is impacted by flight-to-quality and “convenience yield” effects and is not really representative of the euro area. The second is not a real risk-free yield curve as it is affected by a complex set of different risk and liquidity premia idiosyncratic of each country. The common present use of the OIS (Overnight Indexed Swap) curve as a substitute or complement to a yield curve is not so effective for longer maturities as they do not benefit from a very liquid market²⁴. The safe asset, with deep liquidity and significant amounts issued at different maturities, would create a more representative yield curve. As we know the yield curve is important for monetary policy. First, it is an indicator of what the market is thinking about the expected path of future monetary policy. Indeed, long-term rates under certain conditions reflect expectations of the future path of short-term rates. Of

²³ See Constâncio, Vitor (2018) “Why EMU requires more financial integration” at https://www.ecb.europa.eu/press/key/date/2018/html/ecb.sp180503_1.en.html

²⁴ See ECB (2014) “Euro area risk-free interest rates: Measurement issues, recent developments and relevance to Monetary policy” in ECB Monthly Bulletin July 2014; see also P. Nyman-Andersen (2018) Yield curve modelling and a conceptual framework for estimating yield curves: evidence from the European Central Bank’s yields curves” ECB Statistical Paper Series n. 27

course, besides future rate expectations, longer maturity yields typically contain risk premia. The quantification of these premia is difficult even in normal times.

On the other hand, the yield curve is a key part of the transmission mechanism of monetary policy. Therefore, it is something the central bank wants to influence, not only just learn from. In particular, while the first step in the transmission process of monetary policy is typically related to very short-term interbank interest rates, the wider transmission requires that these effects spread more widely to medium- and longer-term rates²⁵.

Another advantage for monetary policy from an increased supply of a safe asset is obviously associated with the easiness of conducting open market operations, either regular ones or extraordinary large securities asset purchases (LSAP or QE). In any reasonable scenario, regular open market operations will have to be used in the future as a consequence of the ECB's balance sheet becoming much bigger than what it was before the crisis, even not considering any unconventional policy measures. On the liability side, Notes in circulation are already at 1.2 trillion euros and are still increasing. If we add to that the "normal" demand for reserves by banks and other sundry items we reach a total around two trillion. Looking to the asset side, it is clear that it will be difficult to build and manage such an amount of liabilities with mostly lending to banks through auctions. The amounts involved are too big and that implies that open market operations, i.e. buying and selling of securities, will have to be used. For that purpose, a deep and liquid market of European safe assets will be certainly very useful.

Let me end with some brief comments on the types of European safe assets that seem more viable, meaning the ones that exclude significant degrees of mutualisation, can attain significant volumes and are issued with a broad spectrum of maturities. In this context we are all indebted to Alvaro Leandro and Jeromin Zettelmeyer (2018)²⁶ for their papers, analysing several possible schemes. In my view, their analysis justifies disregarding the solutions of national tranching or those linked to a Euro area budget or sovereign wealth fund. I also exclude the suggestion of issuing Eurobills, initially proposed with mutualisation and linked to expenditures in European projects²⁷. Even if these two aspects could be corrected, issuing only short term paper would not serve

²⁵ See Constâncio, Vítor (2014) "Understanding the yield curve" at https://www.ecb.europa.eu/press/key/date/2014/html/sp140908_1.en.html

²⁶ Leandro, A. and J. Zettelmeyer (2018) "The search for a Euro Area safe asset" CEPR DP 12793, March; Leandro, A. and J. Zettelmeyer (2018) "Safety Without Tranches: Creating a 'real' safe asset for the euro area" CEPR Policy Insight n. 93, June.

²⁷ See the initial proposal by Philippon, Helwig (2011) Eurobills, not Eurobonds at <https://voxeu.org/article/eurobills-not-euro-bonds>; See also Bishop, Graham (2013) "Bolstering the Still-Fragile Euro: A Plan for a Temporary Eurobill Fund" at <http://www.grahambishop.com/DocumentStore/08e23646-5275-490b-9442-f1a650db2119.pdf>. See also the EU Commission (2014) Final Report of the EU Commission Expert Group on Redemption Fund and Eurobills at http://ec.europa.eu/economy_finance/articles/governance/pdf/20140331_conclusion_en.pdf

the panoply of objectives that I have mentioned as important. Other proposals include the Purple Bonds²⁸ and the somewhat obscure idea of using the banks' reserves at the ECB as a basis for a safe asset. The Purple Bonds is basically a scheme of guarantees of no restructuring that very gradually (20 years) would undergo a transition towards a final stage where sovereign debt would be transformed into the Blue/Red bonds of the 2011 proposal by Jacques Delpa and Jacob (2010)²⁹. The concept implies a degree of mutualisation, even during the transition, that makes it unviable. Bank reserves at the ECB are safe assets for the banks that can only use them to transfer to another banks that are ECB's counterparts. Allowing the creation of time deposits out of those basically overnight reserves and making them negotiable with entities outside the perimeter of central bank counterparties through a kind of repos, would interfere with monetary policy conduct and could never fulfil the several roles a true European safe asset should ensure.

We are left with two basic proposals. The first follows the series of papers by Brunnermeier et al (2018)³⁰ and was crystalised in the report published by the ESRB³¹, proposing SBBS, a tranchéd synthetic bond backed by national sovereign bonds. The senior tranche would have very low risk levels, presumably below German debt, as a result of the diversification gains based on historical correlations and of the protection granted by lower-grade tranches. Market practitioners and rating agencies have been skeptical about the instrument revealing that major financial institutions would issue or buy such synthetic product. National Debt Managing Offices (DMO) have fiercely opposed the scheme, particularly because it was supposed to be launched by private firms without coordination with planned official issues. Finally, in December the ECOFIN put aside further consideration of this project. The main substantive concern is a perceived insufficient diversification to ensure that the senior tranche can be indeed as safe as claimed because correlations among several countries' debt could increase in a stressful situation. Also, it may be difficult to sell the junior tranche at coupons that do not fatally compromise the overall economics of the synthetic security issuance. Indeed, if the junior tranche had to be placed at a relatively high coupon, then the senior tranche would need to offer a lower coupon than Bunds, a doubtful selling prospect. This would likely render the economics of the SBBS unviable. These obstacles could be overcome if, for instance, a small first loss tranche was to be covered by public guarantee, jointly provided by member states. Such contingent liability could be limited to a reasonable

²⁸ See Bini-Smaghi and M. Marcussen (2018) "Delivering a safe asset for the euro area: A proposal for a Purple bond transition" at <https://voxeu.org/article/delivering-safe-asset-euro-area>

²⁹ See Delpa, J. and J. Weizsäcker (2010) The Blue bonds proposal at http://bruegel.org/wp-content/uploads/imported/publications/1005-PB-Blue_Bonds.pdf

³⁰ Brunnermeier, Markus K., Sam Langfield, Marco Pagano, Ricardo Reis, Stijn Van Nieuwerburgh, and Dimitri Vayanos (2017), 'ESBies: Safety in the Tranches', *Economic Policy* 32, (90): 175-219.

³¹ ESRB (2018) "Sovereign bond-backed Securities: a feasibility study" available at https://www.esrb.europa.eu/pub/task_force_safe_assets/shared/pdf/esrb.report290118_sbbs_volume_I_mainfindings.en.pdf

level but it is unlikely to be forthcoming. All considered, I think this proposal should be abandoned.

The second proposal is the Leandro/Zettelmeyer (2018)³² version of the so-called Ebonds with a European public entity issuing securities destined to cover a sizeable amount of national financing needs and backed by seniority of its claims over other national sovereign liabilities. Seniority, instead of diversification and tranching, would make these securities as safe as the safest present sovereign bond. The achievable amounts could be considerable, more than € 3 trillion as I mentioned, serving the different important goals of having a European safe asset. To allay concerns of National Treasuries they should all sit on the Board deciding the amounts and timing of issuance of the safe asset. Complementary regulations would ensure that the banks must use the new asset to substitute their excessive holdings of domestic sovereign debt. The absence of mutualisation should make the scheme agreeable to northern countries. Subordination of the remaining national debts could result in an increased cost of its issuance, which could be a concern for more indebted countries. However, reasonable analysis and simulations show that that possible cost would be offset by the lower costs of issuance of the E-bonds benefiting all countries.

Conclusion

Let me conclude. Monetary Union, Banking Union and Capital Markets Union are deeply intertwined. A European safe asset is a linchpin of the three projects as I tried to illustrate. None of them can reach a smooth and full completion without it. Member States and European policy makers must now take seriously the creation of such vital component of the European financial architecture.

Thank you for your attention

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