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Monetary-Fiscal Interactions in the Euro Area: Assessing the Risks



Policy Department for Economic, Scientific and Quality of Life Policies
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Abstract

The global pandemic is deepening the linkages between fiscal and monetary policies. While some are concerned that high public debt may pressurise the ECB to pursue overly loose monetary policy, this paper argues there is a greater risk that the Treaty's rules on monetary financing will constrain the ECB from reacting appropriately to the crisis and that re-imposing the EU's fiscal rules from 2022 onwards could harm economic recovery. This paper calls for an overhaul of the economic rules in the Treaty.

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LIST OF ABBREVIATIONS

APP	Asset purchase programme
CAC	Collective action clause
ECB	European Central Bank
ECJ	European Court of Justice
EMU	Economic and Monetary Union
EU	European Union
ESM	European Stability Mechanism
FOMC	Federal Open Market Committee
GDP	Gross domestic product
OMT	Outright monetary transactions
PEPP	Pandemic emergency purchase programme
PSPP	Public sector purchase programme
QE	Quantitative easing
TFEU	Treaty on the Functioning of the European Union

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EXECUTIVE SUMMARY

- **The COVID-19 global pandemic is leading to large increases in public debt across the world.** This is pushing many countries towards unprecedentedly high debt-GDP ratios.
- **The crisis is also increasing the inter-linkages between governments and central banks and between monetary and fiscal policies.** Central banks are accumulating large amounts of sovereign debt via asset purchase programmes.
- **Inter-linkages of various sorts are emerging between fiscal and monetary policies.** Low interest rates allow governments to carry higher debt burdens and ownership of sovereign debt by central banks reduces the net burden of the interest on this debt. The potential deployment of the European Central Bank (ECB)'s outright monetary transactions (OMT) programme also acts to stabilise sovereign debt markets in the euro area and reduces the change of a speculation-driven sovereign default.
- **Some are concerned that high public debt may pressurise the ECB to pursue overly loose monetary policy.** However, this paper argues this is not a major source of risk.
- **We are likely to be in a low-interest regime for a long time, so there is little reason to be concerned about debt sustainability in the euro area.** Concerns about fiscal debt should not prevent us responding adequately to this crisis.
- **The ECB has been clear that its actions are consciously making it easier for governments to pursue active fiscal policies to combat economic weakness and that it supports an active fiscal response.** Rather than be concerned about fiscal-monetary interactions, we should welcome that ECB is enabling a strong co-ordinated approach to an unprecedented threat to our economy.
- **This approach is also fully consistent with the ECB pursuing its primary objective.** Co-ordinated monetary and fiscal policies are the best bet for restoring price stability by returning inflation to its target level.
- **There is a risk that the Treaty's rules on monetary financing will constrain the ECB in its reaction to the crisis.** In particular, the pandemic emergency purchase programme (PEPP) may be ruled to violate the prohibition on monetary financing.
- **The European Court of Justice (ECJ) has, up to now, ruled that the ECB's asset purchase programmes do not violate the Treaty's monetary financing prohibition.** This paper discusses, however, how there are likely to be limits to the ECJ's tolerance of sovereign bond purchases by the Eurosystem and how the PEPP could trigger the ECJ to impose explicit limits on sovereign debt holdings.
- **The ECJ may be concerned about the non-temporary nature of asset purchase programmes.** They may also be concerned about the size of the Eurosystem's holdings and the question of whether the programmes are discouraging sound budgetary policy.
- **The ECB may be forced into an uncomfortable choice.** It may have to pick between the short-run stimulus provided by its asset purchase programmes and the longer-term existential threats to be addressed by the OMT programme.
- **Re-imposing the EU's fiscal rules from 2022 onwards could harm economic recovery.** These rules should be suspended indefinitely and then replaced with more sensible provisions. A replacement of the monetary financing prohibition with a more flexible approach should also be considered.

1. INTRODUCTION

The COVID-19 global pandemic is leading to large increases in public debt across the world, pushing many countries towards unprecedentedly high debt-GDP ratios. The crisis is also increasing the inter-linkages between governments and central banks, and between monetary and fiscal policies. Central banks in advanced economies had often accumulated large holdings of government debt during the previous global financial crisis and had generally stopped well short of selling them all off to bring their balance sheets back to their pre-crisis size. Indeed, the European Central Bank (ECB), which was struggling to meet its inflation target prior to the pandemic, had reactivated its asset purchase programme (APP) prior to the pandemic and was already purchasing large amounts of sovereign bonds. With the introduction of its pandemic emergency purchase programme (PEPP), the Eurosystem is now set to purchase over EUR 1 trillion of sovereign bonds on top of its already-considerable stock of bonds acquired via previous asset purchase programmes.

This paper discusses fiscal-monetary linkages in the euro area, focusing on the relationship between the ECB and national governments. The paper discusses two types of concerns that may arise from the current situation.

The first type of concern relates to the macroeconomic consequences of excessive fiscal debt in the Eurosystem. Should these high debt levels be a concern for the ECB? Could fiscal sustainability problems pressurise the ECB to pursue looser monetary policy leading to it failing to meet its primary objective of price stability? Concerns about so-called “fiscal dominance” are understandable. There are many historical examples of countries with high levels of fiscal debt seeking to reduce the burden of this debt via policies such as financial repression, exchange rate devaluation, central bank purchases of sovereign bonds and loose monetary policies. By engineering high inflation, these policies can help to “inflate away” a large public debt burden.¹ Indeed, during the decades that preceded the introduction of the euro, participant countries in the European Monetary System that had higher public debt levels tended to have systematically higher inflation rates.

The second type of concern relates not to public debt sustainability or threats to the independence of the ECB. Instead, they relate to the possibility that well-intentioned limitations written into the European Treaties may constrain the ability of euro area monetary and fiscal policy makers to respond appropriately to the global pandemic. For monetary policy, if the ECB continues pursuing its asset purchase programmes while also having its outright monetary transactions (OMT) programme available for use, it may reach the limits of the European Treaty’s prohibition of monetary financing, as interpreted by the European Court of Justice (ECJ). For fiscal policy, there are concerns that while the EU’s excessive deficit procedure rules have been suspended for 2021, their return could constrain governments from taking the appropriate responses to economic conditions in the coming years.

The paper is structured as follows. Section 2 outlines the economic rationale for the ECB’s OMT and asset purchase programmes and discusses the fiscal-monetary interaction issues they raise. Section 3 discusses the prohibition on monetary financing and examines whether legal restrictions could limit the ability of the ECB to continue its current policy of playing a large role in sovereign bond markets. Section 4 discusses prospects for fiscal sustainability in the euro area and whether unsustainable public debt is likely to present a threat to the ECB’s independence or to price stability.

I conclude that, in the current conditions, long-run fiscal sustainability should be low down the ECB’s list of worries. With monetary policy tools perhaps reaching a point of “diminishing marginal returns”,

¹ See Reinhart, Reinhart and Rogoff (2015) and Reinhart and Sbrancia (2015) for evidence on how high public debt burdens were managed in the past.

the present crisis calls for a co-ordinated monetary and fiscal expansion. The ECB's current policies, by providing additional fiscal space to governments, are fully consistent with its primary objective of price stability, meaning a return to inflation rates of close to 2%. Over the longer term, there is little evidence that the ECB will deviate from the role allocated to it by the European Treaties. If debt sustainability concerns emerge in the future for various euro area Member States, it is highly unlikely the ECB would undermine its commitment to price stability to prevent these defaults.

In contrast, this paper argues there should be greater concerns that the ECJ may at some point place specific limits on the Eurosystem's holdings of sovereign debt and that the fiscal rules that are written into the European Treaties will lead to unnecessarily tight fiscal policy in the coming years. The former issue may constrain the ECB's ability to pursue asset purchase programmes and force it into an uncomfortable choice between the short-run stimulus provided by these programmes and the longer-term existential threats to be addressed by the OMT programme. The latter issue threatens the euro area with another long period of austerity and slow growth at a time when the ECB could be more constrained than in the past.

2. FISCAL-MONETARY INTERACTIONS IN THE EURO AREA

In this section, I will discuss the role the Eurosystem is playing in sovereign debt markets, highlighting first the OMT programme announced in 2012 and then the asset purchase programmes introduced from late 2014 onwards. I then focus on potential legal restrictions and possible future developments in this area.

2.1. The outright monetary transactions (OMT) programme

2.1.1. Rationale for the programme

Charles Goodhart (1998) pointed out prior to the launch of the euro that it represented a profound break from the past because it de-linked national fiscal policies from money creation powers. To quote Goodhart:

“Historically, the nation states have been able, in extremis, (whether in the course of war or other—often self-induced—crises) to call upon the assistance of the money-creating institutions ... the participating nation states will continue to have the main fiscal responsibilities; but in the monetary field, their status will have changed to a subsidiary level, in the sense that can no longer, at a pinch, 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.”

Goodhart warned that this “divorce” was likely to cause difficulties during the inevitable crises that would beset the euro area and this prediction was correct.

Until 2012, the public and financial markets believed that the ECB would not play any role in preventing sovereign defaults. And indeed, while Jean-Claude Trichet complained bitterly about the Greek sovereign default as being a bad idea, the ECB did nothing to prevent it. This created a potential problem for euro area Member States: the possibility of self-fulfilling sovereign defaults.

One idea of how sovereign defaults occur is they happen because government debt finally rises above some specific unsustainable level. For example, a government that has a debt-GDP ratio of 140% with an average maturity of seven years may seek to run a budget deficit of 2%, so the debt-GDP ratio rises to 142%. It is possible that the government may fail to obtain funding for this 2% and decide to restructure its debt. In practice, however, the risk of sovereign default stems from rolling over the existing debt. So, in the example above, the government would each year be refinancing 20% of GDP of sovereign debt. It is this rollover risk, stemming from a “buyers strike” for rollover debt, rather than difficulty in financing the addition of new debt to the total, that represents the key risk for sovereign default.

The economics literature on sovereign default (for example Cole and Kehoe [2000] and Aguiar et al [2020]) has pointed out that in the absence of a central bank “safety net” for governments, there is room for multiple “self-fulfilling” sovereign default scenarios where investors don’t wish to purchase sovereign bonds because they believe other investors are not going to purchase them and thus there will be a default and anyone who purchases the bonds will make losses. There are good reasons to view the behaviour of sovereign bond markets for some euro area members during 2011/12 as examples of this kind of self-fulfilling crisis in action.

Ruling out this type of speculative “buyers strike” default appears to be the principal purpose of the ECB’s OMT programme, announced in 2012 as the practical implication of Mario Draghi’s famous “whatever it takes” speech. It is interesting to note that in an excellent recent speech discussing fiscal-

monetary interactions, ECB Executive Board member Isabel Schnabel (2020) outlines this exact scenario to justify the OMT programme. It is worth providing an extensive quote:

“financial markets are neither always rational, nor efficient. They can be prone to panic and instability. Acute periods of market stress can drive a considerable wedge between a country’s cost of borrowing, as justified by economic fundamentals, and actual financial conditions, giving rise to self-fulfilling price spirals.

Such periods of turmoil – if left unaddressed – can quickly turn a liquidity crisis into a solvency crisis, giving rise to huge costs for society as a whole. Central banks are best placed to protect the public from such destabilising forces.

In the euro area, the ECB can only be a lender of last resort to financial institutions. The Treaty explicitly prohibits monetary financing of public debt.

But the ECB can, and should, provide liquidity when the market fails to coordinate and when the risk absorption capacity of financial market participants is severely constrained. Central bank interventions quickly instil confidence and allow the market to coordinate on the “good” equilibrium once the initial fog of panic and fear has lifted.

A prime example is the announcement of outright monetary transactions (OMT) in the summer of 2012. The “whatever it takes” speech by Mario Draghi constituted a coordination device and thereby calmed markets, whereby the euro area gained precious time for reforms”

The OMT programme has never actually been activated. If it were, I suspect there could be serious implementation problems surrounding the requirement to also activate a European Stability Mechanism (ESM)-overseen programme of structural reforms. However, there can be no doubt that this programme (and the important accompanying rhetoric from President Draghi) was crucial in keeping the euro together and inducing an easing in sovereign bond yields. This raises an important issue that we will discuss at greater length later: for the OMT programme’s potential deployment to continue to be a credible influence on financial markets, it is necessary that markets believe the Eurosystem has the capacity to step into bond markets with large and sustained purchases of sovereign bonds on the secondary market.

2.1.2. Fiscal-monetary interactions

The creation of the OMT programme involved the ECB signalling its willingness to play a major role in euro area’s fiscal policy environment. While the theoretical rationale of a central bank “safety net” is strong, the reality is the ECB has decided that it is willing to substitute its own judgements on debt sustainability for the judgements of financial markets and this has been a remarkable development.

Thus far, the programme has been very effective. Without ever being called into practice, the mere existence of the OMT programme has reassured financial markets that sovereign defaults are less likely and as a result this has made debt more sustainable. This has been a positive mutually reinforcing set of interactions but it should also be noted that these kinds of interactions can sometime work in the opposite direction. It is not impossible that at some point in the future, financial markets could perhaps lose faith in OMT, raising the possibility of sovereign default and endangering debt sustainability.

Another important fiscal-monetary interaction associated with the OMT programme is the question of how the Eurosystem’s sovereign bonds acquired via an OMT intervention would be treated in the event of a debt restructuring. When introducing the OMT programme, the ECB assured markets that

“it accepts the same (pari passu) treatment as private or other creditors with respect to bonds issued by euro area countries and purchased by the Eurosystem through Outright Monetary Transactions, in accordance with the terms of such bonds.”²

There were good reasons for this decision. If the ECB were to insist on a *de facto* senior creditor position, then losses for private sector bondholders would increase in any restructuring since the debt reduction would have to be spread across a smaller amount of bond holdings. In this case, the triggering of an OMT programme could make investors more concerned about holding a country’s debt rather than less concerned. Mario Draghi acknowledged this in December 2014 when answering a question about future asset purchases by saying *“we don’t want to cause unintended monetary policy tightening in choosing forms of seniority which would be counter-productive.”*

In its 2014 *Gauweiler* ruling on the legality of the OMT programme, the ECJ acknowledged the ECB was taking on risk in purchasing sovereign bonds but that such risks were not illegal. The judgement included the following³

“It should also be borne in mind that a central bank, such as the ECB, is obliged to take decisions which, like open market operations, inevitably expose it to a risk of losses and that Article 33 of the Protocol on the ESCB and the ECB duly provides for the way in which the losses of the ECB must be allocated, without specifically delimiting the risks which the Bank may take in order to achieve the objectives of monetary policy. Furthermore, although the lack of privileged creditor status may mean that the ECB is exposed to the risk of a debt cut decided upon by the other creditors of the Member State concerned, it must be stated that such a risk is inherent in a purchase of bonds on the secondary markets, an operation which was authorised by the authors of the Treaties, without being conditional upon the ECB having privileged creditor status.”

The key phrase here that suggests collective action clauses (CACs) may raise a legal issue is *“a debt cut decided upon by the other creditors.”* By focusing solely on a “debt cut” imposed on the Eurosystem by other creditors, it could be interpreted that the ECJ has implicitly assumed that, once given the opportunity to vote on a potential restructuring, the ECB would be under an obligation to use a blocking minority position to prevent a debt restructuring. I will further explore the legal issues relating to this topic in the next section.

2.2. Asset purchase programmes

2.2.1. Rationale for the programmes

While the OMT programme has emerged as a special “European solution to a European problem”, the other major source of fiscal-monetary interactions, the asset purchase programmes, are monetary policy programmes of the type that have been adopted in the United States, Japan and elsewhere. When each of these central banks have approached limits to their conventional policies of adjusting interest rates downwards to boost inflation, they have used their money creation powers to purchase financial assets.

² ECB (2012). “Technical features of Outright Monetary Transactions”, Press release, 6 September 2012. https://www.ecb.europa.eu/press/pr/date/2012/html/pr120906_1.en.html

³ European Court of Justice (2015). Judgement of the Court (Grand Chamber) of 16 June 2015 in Case C-62/14. <http://curia.europa.eu/juris/document/document.jsf?jsessionid=60A4861245325B97FFF1DF45DFC3F00F?text=&docid=165057&pagelndex=0&doclang=EN&mode=req&dir=&occ=first&part=1&cid=2814192>

The channels through which these quantitative easing (QE) programmes affect the economy are still a subject for active debate in academic and central banking circles. However, the common perception that these programmes act by “pumping money into the economy” and boosting the supply of credit does not match with what most central bankers have believed the key mechanisms to be. A good example of consensus opinion about these programmes can be found in the recent presidential address to the American Economics Association given by Ben Bernanke (2020). Bernanke cites the proximate goal of QE as being to reduce long-term interest rates via two key channels: A “portfolio balance” effect through which boosting demand for long-term bonds raises their prices and lowers yields and a “signalling” effect by which asset purchases make forward guidance on keeping interest rates low more credible.

Bernanke famously joked *“The problem with QE is it works in practice but it doesn’t work in theory.”*⁴ The theory he was referring to was the classic finance theories which suggest that rational expectations, efficient markets and arbitraging investors should see all assets priced purely according to their expected risk and return. In such models, there is no “demand curve” for sovereign bonds and large-scale purchases of these bonds by a central bank should not have an impact. The empirical evidence favours Bernanke’s position that QE programmes have worked in practice to reduce bond yields but while efficient market theories of bond pricing may not be perfect, they are also not wildly wrong. It turns out to require enormous amounts of central bank bond purchases to achieve relatively modest reductions in long-term yields.

Bernanke (2020) summarises the evidence on the impact of QE from Ihrig et al. (2018) as follows:

“QE1 reduced the 10-year term premium by 34 basis points, the Maturity Extension Program reduced term premiums by an additional 28 basis points, and QE3 reduced term premiums yet more, by 31 basis points on announcement and more over time.”

In other words, about USD 3.5 trillion dollars worth of money created to buy long-term bonds managed to reduce long-term yields by less than one percentage point. Set against the success of the programme on its own terms in reducing long-term yields however, is the controversy that has accompanied such a dramatic expansion in the Fed’s balance sheet, with further expansion now occurring because of the additional purchases made by the Fed in response to the global pandemic.

2.2.2. Fiscal-monetary interactions

The principal focus of asset purchase programmes is to reduce long-term yields throughout the economy. They are not motivated by a specific desire to reduce the debt burden on sovereigns or make it easier for countries to issue more debt. However, it cannot be ignored that these programmes have clear fiscal effects.

The first fiscal impact is that lower bond yields reduce the cost of borrowing for governments. This allows governments to run larger debt levels while retaining the same annual interest cost.

The second fiscal impact is that the interest earned on debt held by a central bank ends up being repaid to the government as part of their annual profit dividend. These interest payments are the right hand of the public sector paying the left hand, which eventually passes it back. In the euro area, the asset purchase programmes are specifically designed so that each participating central bank buys the sovereign debt of its own government. For as long as this debt is held by the national central bank, the

⁴ CNBC (2014). “Bernanke cracks wise: The best QE joke ever!”, 16 January 2014. <https://www.cnbc.com/2014/01/16/bernanke-cracks-wise-the-best-ge-joke-ever.html>

underlying cost of interest on the debt is lower than the official “gross” figure for interest payment and the effective gross government debt overstates the burden on taxpayers.

One caveat to this point is that the Eurosystem pays for its sovereign bond acquisitions via credits to the accounts of Eurosystem credit institutions and these constitute interest-bearing liabilities. Viewed from a consolidated public balance sheet point of view, the public sector has merely swapped one form of debt to the private sector (government bonds) for another (deposit accounts that Eurosystem banks hold with their national central banks).

That said, the interest rate the Eurosystem pays on reserves is the bottom rate in its “corridor” system, so the average yield on sovereign bonds is generally higher than the cost of remunerating the reserves created to allow these purchases. And of course, the remuneration rate for deposits with the Eurosystem is currently negative, although the effect of this on the Eurosystem’s profits has been partially offset by the fact that some of the bonds being purchased have negative yields and by the recently introduced “tiering” policy.

3. LEGAL ISSUES RELATING TO MONETARY FINANCING

This section discusses some legal issues surrounding the issue of monetary financing in the euro area. Section 3.1 provides a general discussion of the issue while Section 3.2 raises a number of specific points to illustrate how the current path of the ECB's policies may lead towards the ECJ declaring the ECB to be in violation of the European Treaties. Section 3.3 discusses a potential future choice the ECB may face: picking between asset purchase programmes for monetary policy purposes and its OMT programme to backstop sovereign debt sustainability.

3.1. Interpreting the prohibition of monetary financing

The authors of the Maastricht Treaty that founded Economic and Monetary Union (EMU) understood that high public debt levels could place pressure on central banks to boost fiscal sustainability via expansionary monetary policy and high inflation. Indeed, there was generally a strong correlation during the European Monetary System era between inflation rates and public debt ratios. Those countries with higher public debt ratios tended to devalue more often within the system and thus had higher inflation rates.

With this in mind, the Maastricht Treaty provided a number of different ways to insulate the formulation of monetary policy from concerns about fiscal sustainability. These included making price stability the ECB's primary objective and making its governing body highly independent, prohibiting Eurosystem central banks from direct purchases of government bonds and, of course, strict fiscal rules limiting government debt and deficits.

In practice, fiscal developments have not gone as EMU's founding fathers envisaged they would. The fiscal rules have been regularly violated by both small and big countries, and by wealthy and less wealthy countries. As I will argue below, this isn't necessarily a wholly bad thing since the rules are badly designed, particularly for today's economic circumstances. However, there is a lot more public debt in issuance than the Treaty's writers imagined would be the case. I also suspect a lot more of that debt is held by Eurosystem central banks than they expected. While the Treaty did not explicitly outlaw secondary market purchases of sovereign bonds, it's also unclear that those who drafted the article envisaged large-scale accumulation of public debt by the Eurosystem as being acceptable.

The key article outlining monetary financing is Article 123 of TFEU which states

“Overdraft facilities or any other type of credit facility with the European Central Bank or with the central banks of the Member States (hereinafter referred to as ‘national central banks’) in favour of Union institutions, bodies, offices or agencies, central governments, regional, local or other public authorities, other bodies governed by public law, or public undertakings of Member States shall be prohibited, as shall the purchase directly from them by the European Central Bank or national central banks of debt instruments.”

This article makes clear what is illegal for national central banks: Directly providing money to national governments by purchasing bonds from them or providing them with a credit facility. So indirect secondary market purchases of these bonds are legal. This could be interpreted as meaning that all secondary market purchases of government bonds by the Eurosystem in all circumstances must be legal. The reality, however, is not quite so clear. The operation of this article depends upon how the law is interpreted by the EU's courts. In practice, the ECJ and national courts interpret European law not in a *literal* way but a *purposive* way, i.e. they consider what the original purpose of the legislation was rather than restricting themselves to precisely what the specific words say.

For this reason, Article 123 can place limits on ECB's actions such as asset purchase programmes if courts view these actions as running counter to what the article was intended to achieve. For example, the applicants in the *Weiss* case ruled upon by the ECJ in December 2018 appeared to think that the purpose of Article 123 was to ensure that central banks could not make it easier for governments to run deficits and so the public sector purchase programme (PSPP), by lowering yields on government bonds and thus reducing interest costs, must be illegal.⁵

The ECJ rejected this argument but their interpretation of Article 123 does appear to place some restrictions on asset purchase programmes and may restrict the ECB's plans for its EUR 1.35 trillion pandemic emergency purchase programme (PEPP). Specifically, the ECJ interprets Article 123 as intended to encourage Member States to follow a "sound budgetary policy". This phrase is used 11 times in the *Weiss* judgement, with the first and key reference being as follows (paragraph 107):

"the ESCB must build sufficient safeguards into its intervention to ensure that the latter does not fall foul of the prohibition of monetary financing in Article 123 TFEU, by satisfying itself that the programme is not such as to reduce the impetus which that provision is intended to give the Member States to follow a sound budgetary policy"

While not placing explicit limits on the PSPP, the *Weiss* judgement pointed to a series of features of the PSPP that the ECJ viewed as implying the policy is not undermining sound budgetary policy. For example, the ECJ cited the explicitly temporary nature of the programme, the fact that ECB was leaving a "blackout period" of time from when a bond was issued to when it could be bought by the Eurosystem and the lack of certainty that any private owner of a sovereign bond could have as to whether they could at some point sell their bond to the ECB. Finally, and perhaps most importantly, the *Weiss* judgement noted that the Eurosystem had decided not to purchase more than 33% of a particular issue of bonds of a Member State or more than 33% of the outstanding securities of one of those governments. In particular, the Court noted the continuing role played by market discipline (paragraph 141):

"in every case only a minority of the bonds issued by a Member State can be purchased by the ESCB under the PSPP, which means that that Member State has to rely chiefly on the markets to finance its budget deficit."

There is a hint here that while the ECJ approved of the 33% limit the ECB had imposed on itself, it may have been willing to go as far as approving higher minority holdings but perhaps not majorities.

3.2. Three questions about current ECB policies

Against this background, the ECB's actions since the start of the pandemic raise a number of issues in relation to potential monetary financing. I will highlight three: questions about the length of the asset purchase programmes, questions about the extent of the Eurosystem's holdings and questions about the meaning of "sound budgetary policy".

3.2.1. Length of the programmes

Since the introduction of QE programmes in advanced economies, there have been questions as to whether these programmes represent a form of monetary financing by reducing the net burden of public debt. An obvious example of this phenomenon is Japan, where the debt-GDP ratio is projected to be over 250% this year but ongoing purchases over a long period by the Bank of Japan mean the

⁵ European Court of Justice (2018). Judgement of the Court (Grand Chamber) of 11 December 2018 in Case C-493/17. <http://curia.europa.eu/juris/document/document.jsf?jsessionid=0EB01E126001D811CB91BDF8D53798F6?text=&docid=208741&pageI ndex=0&doclang=EN>

central bank owns an amount equivalent to over 90% of GDP, i.e. over one third of the debt issued. With the central bank's bond holdings being regularly "rolled over" and profits from these bonds being remitted to central government, the effective burden of this debt is much lower than the headline debt-GDP ratio makes it seem.

In the United States, the Federal Reserve regularly emphasised in the early years of its QE programmes that the programmes did not represent debt monetisation because they were explicitly temporary. For example, Bernanke (2012) summarised the Fed's position as follows

"By buying securities, are you 'monetizing the debt'—printing money for the government to use—and will that inevitably lead to higher inflation? No, that's not what is happening, and that will not happen. Monetizing the debt means using money creation as a permanent source of financing for government spending. In contrast, we are acquiring Treasury securities on the open market and only on a temporary basis, with the goal of supporting the economic recovery through lower interest rates. At the appropriate time, the Federal Reserve will gradually sell these securities or let them mature, as needed, to return its balance sheet to a more normal size."

In reality, the Fed decided in early 2019 that it would continue to operate an "ample reserves regime" which meant that its balance sheet would remain well above its pre-2008 size. The Fed's most recent purchases have brought its holdings of Treasury bonds to over USD 3 trillion. While the Fed holds a far smaller proportion of US federal debt than its Japanese equivalent (total Treasury debt outstanding is over USD 27 trillion), it is reasonable to ask whether previous reassurances that debt was not being monetised still hold true.

The Fed can point to the increased private sector demand for holding reserves as the reason why this apparent debt monetisation has occurred. That said, it appears that much of this increased demand for reserves stems from the way the Fed is implementing the Basel III liquidity coverage ratio regulation.⁶ Someone familiar with the literature on how post-World-War-2 debt burdens were dealt with could argue this approach to regulation resembles financial repression measures from an earlier era.

Against this background, and with the Eurosystem's balance sheet exploding, it may be fair for the ECJ in the future to question assurances from the ECB that its sovereign bond purchases represent an explicitly temporary regime. One could defend sustained and permanent purchases of sovereign bonds on the grounds that the implicit debt monetisation that has taken place in Japan and the United States has not in fact led to higher inflation but the legal barriers to monetary financing in the euro area are stronger than elsewhere and the ECJ may view the purchases as illegal at some point, even if they have not triggered rising inflation.

3.2.2. Size of the purchases

In the *Weiss* judgement, the ECJ approvingly cited the ECB's plans to impose the one-third issuer limits on itself. However, with the introduction of the PEPP, the ECB announced:

*"To the extent that some self-imposed limits might hamper action that the ECB is required to take in order to fulfil its mandate, the Governing Council will consider revising them to the extent necessary to make its action proportionate to the risks that we face."*⁷

⁶ See Cecchetti, Stephen and Kermit Schoenholz (2019).

⁷ ECB (2020). "ECB announces €750 billion Pandemic Emergency Purchase Programme (PEPP)", Press release, 18 March 2020. https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.pr200318_1~3949d6f266.en.html

A quick look at the numbers indicates why the ECB is considering revising these limits. Via its original APP, the Eurosystem acquired about EUR 2.3 trillion of sovereign debt.⁸ Up to the end of September 2020, the PEPP had acquired EUR 565 billion in assets with the vast majority of this (EUR 510 billion) being sovereign bonds. This brings the Eurosystem's sovereign bond holdings to over EUR 2.8 trillion at the end of September, with almost EUR 800 billion in potential additional purchases remaining under PEPP's envelope of EUR 1.35 trillion.

The European Commission's April forecast projects total gross government debt in the euro area to rise from EUR 10.2 trillion at the end of 2019 to EUR 11.4 trillion at the end of 2020. This makes it clear that the one-third issuer limit is in sight for the total stock of debt being acquired. Since the total amount of purchases have been in proportion to the capital key rather than the amount of each type of debt in circulation, these limits are surely going to be surpassed for countries with large capital keys but relatively small debt levels. Moreover, to convince financial markets that it retains sufficient firepower, the ECB will not want to be in a position where it cannot increase its asset purchases or activate the OMT programme because it has hit issuer limit ceilings. So, the ECB will not want to avoid setting a specific figure for issuer limits over the next few years, in case markets will then see it as highly constrained if that limit is reached.

The legal issues surrounding these issuer limits are subtle. The one-third limits were designed to prevent the Eurosystem from obtaining a "blocking minority" position if a country proposes a debt restructuring which its bondholders then vote on via a CAC. There are concerns that a conscious decision to not use a blocking minority to prevent debt restructuring could be viewed as illegal monetary financing, since this would involve money created by the Eurosystem being ultimately used to write down the debt of a Member State.

This raises questions about the ECB's strategy in deciding to exceed the one-third issuer limit. It is possible the ECB may not believe that CACs would actually be the mechanism employed by future governments to restructure debt.⁹ For example, the Greek government restructured its debt via a unilateral act of the Greek parliament, and this may be the approach taken by future European governments when defaulting on debt. Another possibility is that, should a CAC-driven restructuring ever become a likelihood, the Eurosystem could sell enough bonds prior to the restructuring to get below the blocking minority limit. It would be likely that losses would be incurred on these sales but it would avoid the ECB taking a conscious decision to agree to a debt restructuring.

So the ECB can possibly argue that the Treaty does not prevent it from making unlimited secondary market purchases of sovereign bonds and that issues to do with debt restructuring can be dealt with later. However, the reality is that the ECJ's views on the meaning of Article 123 are very likely going to restrict how far the ECB can go with asset purchase programmes. With the self-imposed issuer limit gone, legal challenges to PEPP on monetary financing grounds may be more likely to succeed at the ECJ than previous attempts.

3.2.3. Sound budgetary policies

A final issue is whether the ECJ has a specific interpretation of the concept of a "sound budgetary policy" that Article 123 was intended to support. One obvious interpretation of sound budgetary policies are the deficit and debt reference values set out in the excessive deficit procedures. Future litigants may point to widespread failures to meet (or move towards) the reference values across the

⁸ ECB website – "Asset purchase programmes". <https://www.ecb.europa.eu/mopo/implement/omt/html/index.en.html>

⁹ See Gelpern and Gulati (2013) for a sceptical discussion of euro area CACs from two of the leading academic experts on sovereign debt law.

euro area as being partially facilitated by the ECB's asset purchase programmes. The ECB can in turn point out that sufficient amounts of sovereign debt are still held by private investors and this still acts to maintain market discipline. But this is another area where the legal terrain may be trickier the next time the ECJ is asked to weight on asset purchases.

3.3. A difficult future choice?

An important issue this debate raises is whether the ECB's asset purchase programmes could be acting to undermine the effectiveness of its OMT programme. At present, there is no sign that financial markets view existing sovereign bond purchases as undermining OMT. However, it is not impossible the ECJ will at some point in the future rule that the ECB is reaching (or has gone beyond) the outer limits of its bond holdings being consistent with Article 123.

At that point, the ECB may ultimately be forced to decide which type of programme it must prioritise, I would recommend reducing sovereign bond asset holdings to maintain sufficient "firepower" so that large and sustained OMT-related interventions are still feasible and credible. As a monetary policy, the asset purchases have had a modest stimulatory effect but the availability of room to allow OMT purchases has had a more systemic effect in restoring confidence in euro area sovereign bond markets. As such, the OMT seems to be the more important of the two programmes.

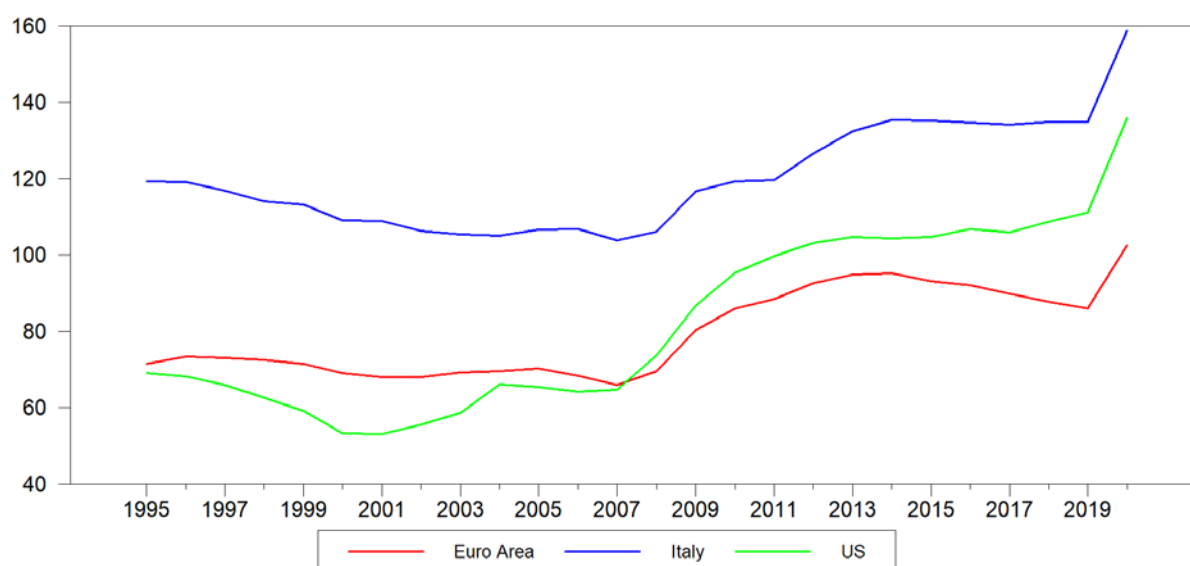
4. DEBT SUSTAINABILITY

This section examines sovereign debt burdens in the euro area and assesses their sustainability. Then it moves on to discuss the EU's fiscal rules, whether the ECB should be concerned about debt levels and then briefly discusses the possibility that sovereign debt problems could push the ECB to alter its monetary policies and undermine its pursuit of price stability.

4.1. Evidence on debt burdens

At first look, it may appear the debt situation in the euro area is now extremely serious. Debt-to-GDP ratios had not fallen much since the euro crisis and due to the pandemic, the European Commission is projecting the euro area's debt-to-GDP ratio to rise over 100% by the end of this year.¹⁰ Figure 1 shows the time series for the euro area debt-to-GDP ratio including the Commission's 2020 forecast as the last data point. For comparison purposes, it also includes the United States and Italy, the country generating perhaps the most concern in relation to sovereign debt sustainability, with its debt ratio projected by the Commission to be 159% this year.¹¹

Figure 1: Debt-to-GDP ratios in the euro area, Italy and the United States



Source: European Commission AMECO online database.

In the past, debt ratios as high as the euro area's current level—and certainly those as high as Italy's current level—would have triggered grave concerns about sustainability, particularly given the level of uncertainty surrounding the potential for economic recovery and the possibility of large government deficits over the next few years. However, these are unprecedented times in many ways and one crucial change relative to the past is that the cost of government debt is now extremely low. Figure 2 illustrates the Commission's estimates of the average interest rate being paid on these sovereign debts. This rate

¹⁰ You can expect this event, when it happens, to trigger commentary along the lines of "the euro area's debt is larger than its economy" with the implicit suggestion that this level of debt is somehow over-whelming. However, this ratio compares two quite different things—a stock (the debt) and a flow (the amount of income generated over a period of one year) and there is nothing special about the figure of 100%.

¹¹ Italy does not actually have the highest debt-GDP ratio. Greece's debt ratio is projected to be 196% at the end of this year but most of this debt is very long term, owed to the official sector and likely can be renegotiated without triggering a further crisis.

has trended down over time and, for 2020, it stands at 1.8% for the euro area as a whole and 2.5% for Italy, both lower than the average rate of 3.1% being paid by the United States.

The result of this low cost of debt finance is that the share of GDP being paid out in the form of debt interest is close to historically low levels. Rather than being under pressure from its high debt level, the share of debt interest paid by Italy has been relatively stable over the past decade at around 4%, far below the levels seen prior to Italy joining the euro, when the high debt burden was seen as a factor pressuring the central bank to raise inflation (see Figure 3). Also worth noting is that an increasing fraction of this interest is being paid to the Banca d'Italia.¹²

Of course, it is possible that macroeconomic circumstances could change and the cost of debt finance could rise again. However, this seems unlikely to happen for many years. One reason is the shifting composition of the stock of sovereign debt. The interest rates shown in Figure 2 are a weighted average of different interest rates associated with debt issued at various times in the past. Sovereign bond yields have plunged in recent years and many euro area countries now able to issue debt with negative yields (see Figure 4). This means that, increasingly, governments can pay off maturing debt securities with high interest coupons and replace them with very low-yielding debt. With the ECB's low interest rate policy likely to be in place for years, we can expect this average interest rate to continue trending downwards over the next few years.

Euro area governments have also been able to take advantage of calm conditions in the bond market to extend the average maturity of their outstanding debt from about 6.3 years in 2013 to 7.5 years now. (See Figure 5). This stretching out of the debt duration will help to reduce the extent of "rollover risk" that can occur over the next decade.

There are other longer-term structural factors that suggest it is unlikely we will see a debt sustainability crisis in the coming years. Even if monetary policy were to "normalise", it now seems very unlikely that we will see a return to the average interest rates that prevailed prior to 2008. For various reasons (demographics, weakening productivity growth, perhaps also rising inequality) equilibrium real interest rates—the real interest rates that will stabilise the economy—have dropped precipitously in recent years.¹³

For example, one can see how the members of the Federal Open Market Committee (FOMC) believe the equilibrium real interest rate for the US has declined in recent years. In January 2012, their median estimate of the long-run federal funds rate was 4.25%, implying an equilibrium real rate of 2.25%. By June 2020, however, their median estimate of the long-run federal funds rate had fallen to 2.4%, implying an equilibrium real interest rate of just 0.4%. Given the Fed's long-run inflation target of 2%, this suggests a long-run average policy rate of 2.4%.

The ECB Governing Council do not provide comparable long-run forecasts but the New York Fed publishes quarterly updates of the Holston, Laubach and Williams (2017) model's estimates of the equilibrium real policy rates for the euro area and that model's current estimate is that this rate is 0.6%, indicating an average policy rate in "normal times" of 2.6%. A gradual monetary tightening of this sort beginning a few years from now seems unlikely to trigger fiscal sustainability concerns.

More generally, as emphasised by Blanchard (2019), a crucial factor for thinking about debt sustainability is whether the average interest paid on sovereign debt (r) exceeds the growth rate of nominal GDP (g). Blanchard documents that the world's advanced economies appear to be

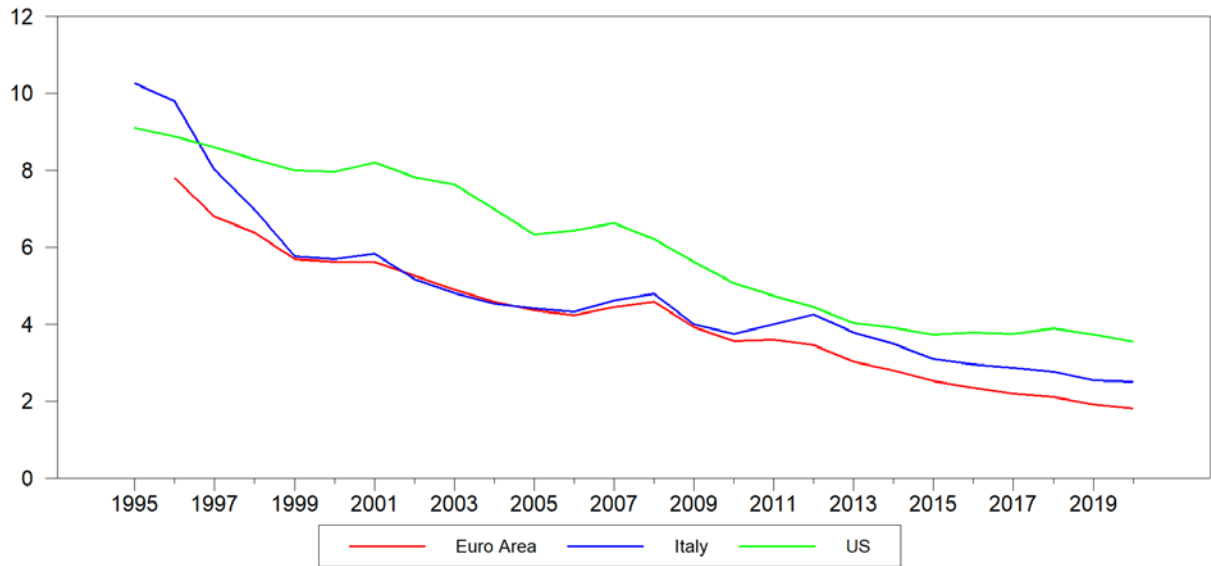
¹² Based on figures from the European Commission and the Banca d'Italia's 2019 annual report, I have calculated that the Banca d'Italia acquired 13% of the stock of outstanding Italian government bonds via the PSPP.

¹³ See Whelan (2018) for a discussion of these issues.

characterised by $r < g$, meaning the interest rate on sovereign debt is lower than the growth rate of nominal GDP. This turns much of the conventional wisdom about debt sustainability on its head: it allows governments to permanent run primary deficits and allows much higher levels of debt-to-GDP to be run without getting governments into difficulties.

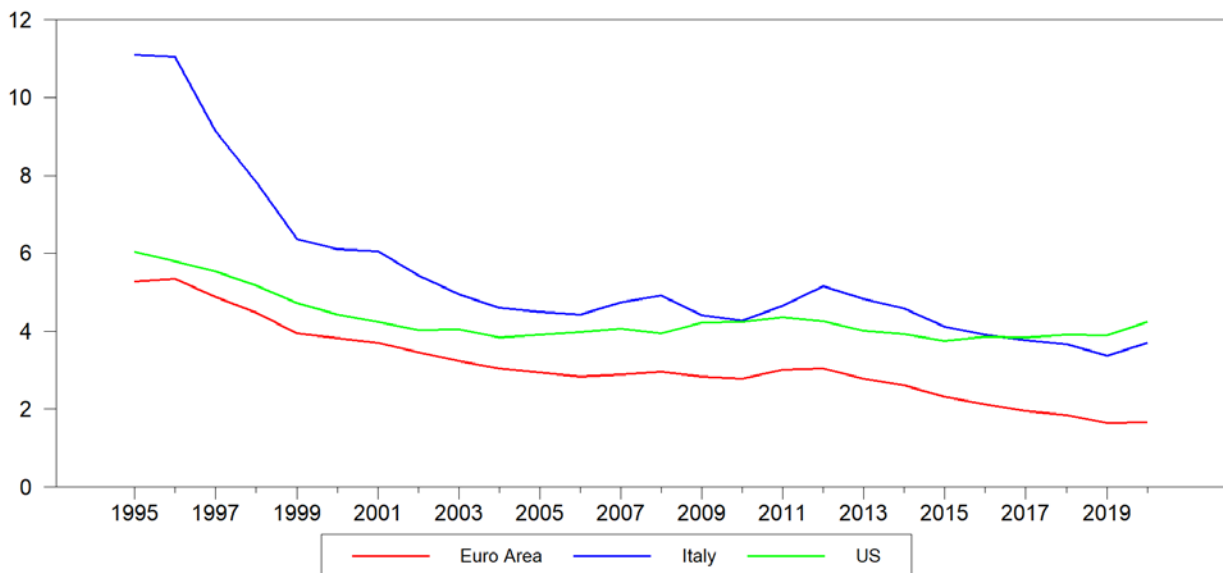
These conditions may all change at some point but, taken together, they suggest there are few reasons at the current moment to be concerned about debt sustainability in the euro area.

Figure 2: Average interest rate on government debt in the euro area, Italy and the United States



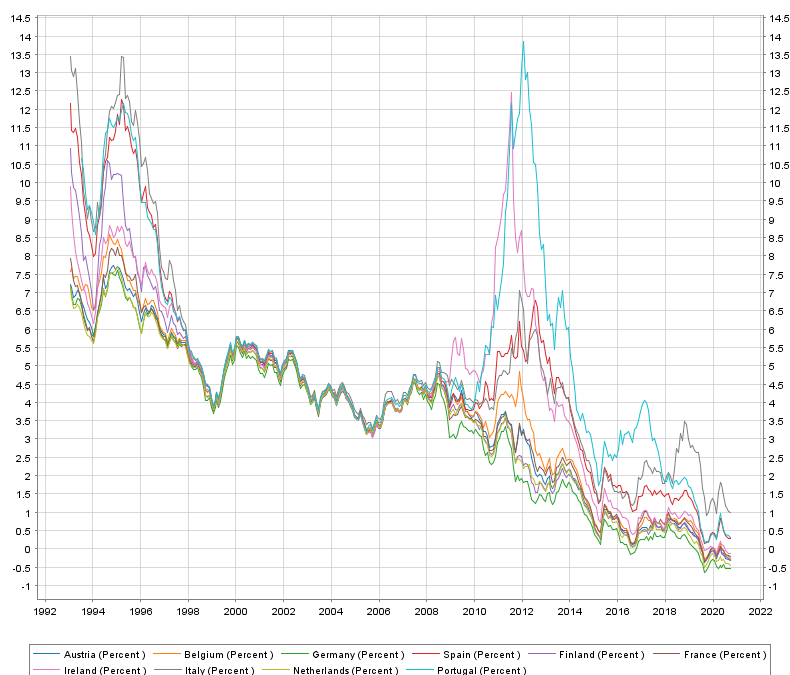
Source: European Commission AMECO online database.

Figure 3: Interest on public debt as a share of GDP in the euro area, Italy and the United States



Source: European Commission AMECO online database.

Figure 4: Current sovereign bond yields on ten-year government bonds for selected euro area countries



Source: ECB Statistical Data Warehouse.

Figure 5: Average maturity of euro area sovereign debt



Source: ECB Statistical Data Warehouse.

4.2. Implications for fiscal rules

The assessment just provided of the prospects for debt sustainability in the euro area will seem odd to those who are used to the ideas about fiscal sustainability described in the Maastricht Treaty's excessive deficit procedure. The Treaty explicitly mentions reference values of a 3% deficit limit and a recommended debt-to-GDP ratio of less than 60%. With those reference values in mind, surely fiscal

alarms should be going off? We are likely to see deficits well above 3% over the next few years in the vast majority of euro area members and almost all countries have debt ratios well in excess of 60%.

Thankfully, the problem here is with these arbitrary rules rather than with the underlying fiscal situation. Macroeconomics is not physics. Macroeconomic relationships alter and evolve as societal conditions change. There are no equivalents in macroeconomics of constants like the speed of light or Planck's constant. It is thus unfortunate that the European Treaties have lumbered the euro area's citizens with a set of rules based on two essentially irrelevant numbers.

There is nothing special about a 3% deficit. Indeed, the experience of the past decade or so shows us that it is sensible and desirable to run deficits above 3% of GDP if economic conditions are sufficiently bad. And there is definitely nothing special about a debt ratio of 60% of GDP. Even leaving aside the earlier points made about the low cost of sovereign debt in the current environment, in an era where Europe's population is ageing and so many people are saving for retirement and government bonds are generally the "gold standard" of safe investment, it makes no sense to place such a low limit on the quantity of government bonds that should be in circulation.

The fiscal rules have been suspended for 2021 but there needs to be a political debate about revising the Treaties to permanently replace them with a more sensible set of debt sustainability considerations. While fully recognising the difficulties that would be associated with obtaining Treaty changes of this sort, the recent proposals of Blanchard, Leandro and Zettlemeyer (2020) to replace rigid fiscal rules with a more flexible set of "fiscal standards" represent an important starting point in this debate.

4.3. Should ECB be concerned?

There are two separate issues when thinking about public debt burdens and the ECB. The first is whether the ECB should be concerned about current public debt sustainability. The second is whether concerns about debt sustainability would cause them to influence their monetary policy.

On the first issue, the arguments put forward here suggest the ECB should not be particularly worried about sovereign debt sustainability and, indeed, there is little in the recent public pronouncements of the ECB's officials to suggest they are concerned. This is important because it helps to maintain the positive reinforcement mechanism described earlier. As long as the ECB believes euro area Member States are solvent, financial markets will believe an OMT programme can be deployed and thus bet against sovereign default, maintaining low yields on sovereign debt.

Of course, ECB will have to continue monitoring fiscal developments. And when the Governing Council begins to raise its policy interest rates again, the ECB will need to assess the implications of such a path for fiscal sustainability. However, one can hope that a path of monetary policy normalisation will occur because of a sustained economic recovery which would also facilitate a natural improvement in the public finances without the need to undertake contractionary austerity measures.

On the second issue of whether debt sustainability concerns could cause the ECB to maintain overly loose monetary policy and threaten price stability, I think this is highly unlikely. As discussed at length in Whelan (2020), the ECB is a highly independent central bank, with this independence enshrined in the European Treaties in a number of different ways, including long terms for Governing Council members and a prohibition for politicians and other bodies from seeking to influence the Eurosystem in the performance of its tasks. I see the scenario in which political pressures leads to the Governing Council taking policy decisions incompatible with their primary legal objective of maintaining price stability as an unlikely one in the coming years.

Rather than be concerned about the ECB being excessively loose in its monetary policy, history suggests that its Treaty-based focus on price stability has made the ECB perhaps excessively

conservative. It took the ECB a long time to implement the kind of unconventional monetary policy measures that it is currently applying and these delays have likely contributed to its failure to meet its own definition of price stability in recent years. The recent round of forecasts from the ECB's Survey of Professional Forecasters show a median long-run expected inflation rate of 1.6%.¹⁴ Rather than being worried about high inflation due to the ECB yielding to fiscal dominance, the experts are concerned the ECB will continue to undershoot its inflation target.

¹⁴ ECB (2020) "The ECB Survey of Professional Forecasters: Fourth quarter of 2020", October 2020.
https://www.ecb.europa.eu/stats/ecb_surveys/survey_of_professional_forecasters/pdf/ecb.spf2020q4~dab5d8085d.en.pdf

5. CONCLUSIONS

The global pandemic is posing exceptional challenges to fiscal and monetary policy makers around the world. This is particularly true in the euro area where running a shared monetary policy combined with separate national fiscal responses creates additional challenges not shared by policy makers elsewhere.

The good news is that the policy response so far in the euro area has been relatively aggressive. The ECB has taken decisive actions and is clearly signalling its willingness to do more. The ECB has also been clear that its actions are consciously making it easier for governments to pursue active fiscal policies to combat economic weakness and that it supports an active fiscal response.

Moreover, we have thus far avoided a focus in either Frankfurt or Brussels on the need to apply the breaks and impose austerity once the economy starts to recover. Rather than be concerned about fiscal-monetary interactions, we should welcome that ECB is enabling a strong co-ordinated approach to an unprecedented threat to our economy. We are likely to be in a low-interest regime for a long time, so there is little reason to be concerned about debt sustainability in the euro area and concerns about debt should not prevent us responding adequately to this crisis. This approach is also fully consistent with the ECB pursuing its primary objective of restoring price stability by returning inflation to its target level.

The bad news is the current crisis is exposing the deficiencies in the policy architecture of the euro area as set out in the Maastricht Treaty. The Treaty's economic policy provisions are well intentioned and represent the thinking of leading economists and central bankers as of the early 1990s. But time moves on and so does thinking about economic policy. This paper has discussed how the euro area's rules on monetary financing are likely to act as a constraint on monetary policy achieving its goals and could possibly undermine the stability in sovereign debt markets brought about by the introduction of the OMT programme.

The EU's fiscal rules are also cumbersome, unnecessarily complex and overly restrictive. While the rules have been suspended for 2021, their reinstatement for 2022 would represent a threat to economic recovery. The ECB is perhaps approaching the limit of the set of expansionary tools that it considered compatible with the Treaties: policies such as "helicopter drops" which are likely to be viewed by the ECB and courts as violating the monetary financing prohibition. Given this, it is crucially important that expansionary fiscal policy be used as long as the pandemic threatens the economy and that we avoid a return to the kind of fiscal austerity that triggered a double-dip recession and put the euro into an existential crisis ten years ago. The rules should be suspended indefinitely and then replaced by more sensible provisions.

Of course, reforming the euro area's economic rules will require a Treaty change and such change will be hard to obtain, particularly changes focused on core economic policy issues. But unless the underlying economic rules governing the euro are improved, questions about the sustainability of the euro project are likely to return.

REFERENCES

- Aguiar, Mark, Satyajit Chatterjee, Harold Cole and Zachary Stangebye (2020). Self-Fulfilling Debt Crises, Revisited. Federal Reserve Bank of Philadelphia, Working Paper 20-03. Available at <https://philadelphiafed.org/-/media/research-and-data/publications/working-papers/2020/wp20-03.pdf>
- Bernanke, Ben (2012). Five Questions about the Federal Reserve and Monetary Policy. Available at <https://www.federalreserve.gov/newsevents/speech/bernanke20121001a.htm>
- Bernanke, Ben (2020). "The New Tools of Monetary Policy," *American Economic Review*, Volume 110(4), pages 943-983. Ungated version available at https://www.brookings.edu/wp-content/uploads/2019/12/Bernanke_ASSA_lecture.pdf
- Blanchard, Olivier (2019). "Public Debt and Low Interest Rates", *American Economic Review*, Volume 109(4), pages 1197–1229. Also available as a Peterson Institute working paper available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3346535
- Blanchard, Olivier, Alvaro Leandro and Jeromin Zettlemeyer (2020). Redesigning the EU Fiscal Rules: From Rules to Standards. Peterson Institute for International Economics. Available at https://www.economic-policy.org/wp-content/uploads/2020/10/9100_R redesigning-EU-Fiscal-Rules.pdf
- Cecchetti, Stephen and Kermit Schoenholz (2019). The Brave New World of Monetary Policy Operations. Available at <https://www.moneyandbanking.com/commentary/2019/6/14/the-brave-new-world-of-monetary-policy-operations>
- Cole, Harold and Patrick Kehoe (2000). "Self-Fulfilling Debt Crises", *Review of Economic Studies*, Volume 67, pages 91-116.
- Gelpern, Anna and Mitu Gulati (2013). "The Wonder-Clause", *Journal of Comparative Economics*, Vol. 41, pages 367-385, 2013.
- Goodhart, Charles (1998). "The Two Concepts of Money: Implications for the Analysis of Optimal Currency Areas", *European Journal of Political Economy*, Volume 14, pages 407-432.
- Kathryn Holston, Thomas Laubach, and John C. Williams (2017). "Measuring the Natural Rate of Interest: International Trends and Determinants", *Journal of International Economics*, Volume 108, Supplement 1, pages 39–75.
- Ihrig, Jane, Elizabeth Klee, Canlin Li, and Joe Kachovec (2018). "Expectations about the Federal Reserve's Balance Sheet and the Term Structure of Interest Rates." *International Journal of Central Banking*, Volume 14, pages 341–90.
- Reinhart, Carmen, Vincent Reinhart and Kenneth Rogoff (2015). "Dealing with Debt", *Journal of International Economics*, Volume 86, pages 543-555.
- Reinhart, Carmen and M. Belen Sbrancia (2015). "The Liquidation of Government Debt", *Economic Policy*, Volume 30, pages 292-333.
- Schnabel, Isabel (2020). The shadow of fiscal dominance: Misconceptions, perceptions and perspectives. Speech available at <https://www.ecb.europa.eu/press/key/date/2020/html/ecb.sp200911~ea32bd8bb3.en.html>
- Whelan, Karl (2018). Monetary Policy in an Era of Low Average Growth Rates, Publication for the committee on Economic and Monetary Affairs, Policy Department for Economic, Scientific and

Quality of Life Policies, European Parliament, Luxembourg. Available at
<http://www.europarl.europa.eu/cmsdata/157018/Whelan%20final%20publication.pdf>

- Whelan, Karl (2020). Accountability at the Fed and the ECB, Publication for the committee on Economic and Monetary Affairs, Policy Department for Economic, Scientific and Quality of Life Policies, European Parliament, Luxembourg. Available at
https://www.europarl.europa.eu/cmsdata/211437/1_WHELAN-final.pdf

The global pandemic is deepening the linkages between fiscal and monetary policies. While some are concerned that high public debt may pressurise the ECB to pursue overly loose monetary policy, this paper argues there is a greater risk that the Treaty's rules on monetary financing will constrain the ECB from reacting appropriately to the crisis and that re-imposing the EU's fiscal rules from 2022 onwards could harm economic recovery. This paper calls for an overhaul of the economic rules in the Treaty.

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