

Euro area fiscal policies and capacity in post-pandemic times



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Abstract

The main legacy of the post-Covid-19-crisis euro area fiscal framework should be the development of a unique integrated fiscal policy and of a permanent and independent Fiscal Fund to implement it. To arrive at this conclusion, we analyse the challenges and build on current research on the optimal design of a fiscal fund. We characterise the fiscal policy, and the development of the Fund, together with the role and form that the Stability and Growth Pact can take in the new fiscal framework.

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LIST OF ABBREVIATIONS

AMECO	Annual Macro-Economic Database of the European Commission's Directorate General for Economic and Financial Affairs
APP	Asset Purchase Programmes
BoP	Balance of Payments
BU	Banking Union
CCCTB	Common Consolidated Corporate Tax Base
CMU	Capital Markets Union
DG BUDG	Directorate General Budget
DSA	Debt Sustainability Analysis
EA	Euro Area
EC	European Commission
ECB	European Central Bank
EDIS	European Deposit Insurance Scheme
EFF	European Fiscal Fund
EIB	European Investment Bank
ELB	Effective Lower Bound
EMU	European Monetary Union
EONIA	Euro Overnight Index Average
EFB	European Fiscal Board
ESM	European Stability Mechanism
ESMA	European Securities and Markets Authority
EU	European Union

EUIS	European Unemployment Insurance System
FDIC	Federal Deposit Insurance Corporation
FF	Fiscal Fund
FRB	Federal Reserve Board
GDP	Gross Domestic Product
GEC	General Escape Clause
GIPS	Greece, Ireland, Portugal and Spain
GNI	Gross National Income
IFIs	International Finance Institutions
IMF	International Monetary Fund
MFF	Multiannual Financial Framework
MMF	Money Market Fund
MoU	Memorandum of Understanding
MSs	Member States
NGEU	Next Generation EU
OECD	Organisation for Economic Cooperation and Development
PCS	Pandemic Crisis Support
PEPP	Pandemic Emergency Purchase Programme
PSPP	Public Sector Purchase Programme
QE	Quantitative Easing
RBC	Real Business Cycle
RRF	Recovery and Resilience Facility
SDSA	Stochastic Debt Sustainability Analysis

SEC	Securities and Exchange Commission
SRB	Single Resolution Board
SGP	Stability and Growth Pact
SRF	Single Resolution Fund
SURE	Support to mitigate Unemployment Risks in an Emergency
TALF	Term Asset-Backed Securities Loan Facility
TLTROs	Targeted Longer-Term Refinancing Operations

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EXECUTIVE SUMMARY

The main legacy of the Covid-19-crisis to the euro area fiscal framework can, and should, be the development of a unique integrated – EU and EA – fiscal policy, in particular the setting up of an efficient, permanent and independent European Fiscal Fund aimed at implementing this fiscal policy. We arrive at this conclusion after analysing **six** post-pandemic **challenges** and having briefly discussed current research on the optimal design of a fiscal fund. This allows us to characterise the fiscal policy, the development of the European Fiscal Fund and the role and form that the Stability and Growth Pact (SGP) can take in the new fiscal framework.

1. **The EU single market must recover as a safe and inclusive engine of growth.** This will require exploiting the full fiscal capacity of Next Generation EU and related programmes, advancing with EU “fair and effective tax coordination” and common corporate taxation, completing the Banking Union and making a more integrated Capital Union.
2. **Within the euro area, Member States’ links are stronger, while divergence across them is greater than ever.** EU policies (fiscal ones included) should take into account EU and EA heterogeneity and not wait for convergence. Instead, policies and institutions that foster it should be designed.
3. **The euro area sovereign debt level is not only at a historical high, but also has taken on a new role, which calls for a common EU debt policy.** The Next Generation EU (NGEU) fund strengthens the leading role of the EU and EA institutions in the European sovereign debt market and they acquire new fiscal responsibilities. However, the new instruments – the NGEU and SURE – are temporary.
4. **The fiscal stabilisation policy, and its mix with monetary policy, cannot be the same (while the list of EU public goods is getting longer).** *The stability and growth framework* needs to be more resilient and reactive, with new instruments, and not only rely on a revised Stability and Growth Pact (SGP).
5. **A new euro area sovereign debt scenario is emerging, with Member States borrowing from the EU, or the ESM, while competing with Eurobonds in the bond market.** With NGEU, the debt capacity of the Member States has become larger and safer, but its management – competing with Eurobonds – may be more complex. Sovereign debt sustainability can be an issue for some countries unless national interest rates are lower than growth rates or at least not significantly higher than Eurobond rates.
6. **Additional long-run challenges appear: uncertainty in a low interest rate environment and ageing (in addition to climate change and the digital and green transformations).** The unified – EU and EA – fiscal policy must take a longer and wider perspective with a *design robust* to different national interest rate scenarios.

These challenges will not disappear with Covid-19 and their remedies raise a main issue: the Fiscal Union is in dire need of development. On the basis of new developments in economic theory, we provide an answer to what the aim of such development should be: a *European Fiscal Fund*. We characterise its objectives and the principles on which its development should be based.

First, a unified and integrated fiscal policy within the current EU and EA fiscal framework (i.e. without Treaty changes) is needed. This means: close collaboration between the Commission Directorate General for Budget (EC DG BUDG) and the ESM and with other EU and EA institutions, strengthening the *Eurosystem of Treasuries*; a *single EU Fiscal Authority*; further strengthening and making more transparent the macro-prudential surveillance framework and the EU and EA Debt Sustainability Analysis; introducing, whenever possible, ex-post contingency on existing and future (e.g. NGEU) EU and EA official lending and minimising its ex-ante conditionality; introducing automatic EU stabilisers, such as a *European Unemployment Insurance System* (built on the SURE experience) and an EDIS for the

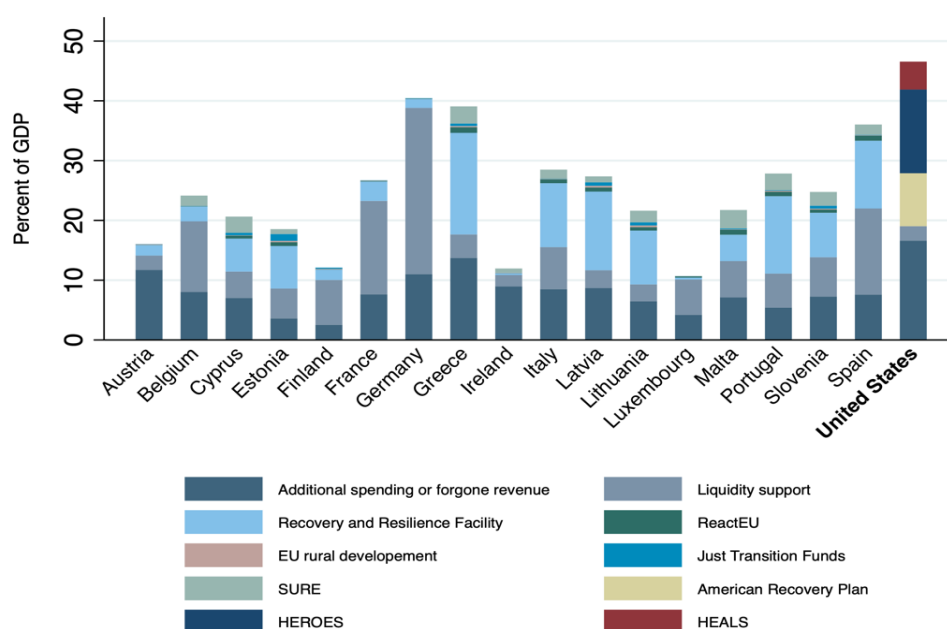
Banking Union. With a unified fiscal policy with more instruments, better coordination with the ECB can be achieved to develop a monetary and fiscal mix for the euro area. Furthermore, the SGP can be properly redesigned as part of the above described EU stability and growth policy. We make a proposal for such a redesign. The main element is *a seven-year sovereign debt anchor consistent with EU consensual DSA and a mid-point reassessment, together with a voluntary 'nominal expenditure ceiling.'*

Second, an *efficient, permanent and independent European Fiscal Fund (EFF)* should in due course be properly institutionalised. This will require Treaty changes to remove unnecessary barriers between the EU and the EA and allow the full development of the EFF.

1. INTRODUCTION

How the euro area (EA) implements its fiscal policies and expands its fiscal capacity will determine not only the strength and shape of its recovery, but also those of the euro area fiscal framework in the aftermath of the Covid-19 pandemic.¹ In Section 2, we review which, in our opinion, are the main challenges and indicate the fiscal policy implications of each of them. In Section 3, we address these challenges and, building on *Next Generation EU*, discuss how the *post-Covid-19-crisis EU and EA fiscal framework* can help develop a more efficient EU. The Annex provides complementary analysis and figures.

Figure 1: Comparing euro area and US Covid-19 crisis stimulus packages



Note: The Recovery and Resilience Facility accounts for loans and grants. For some countries, the RRF loan figures are still provisional. The Health, Economic Assistance, Liability Protection and Schools (HEALS) Act is a 1-trillion USD stimulus package introduced in July 2020. The Health and Economic Recovery Omnibus Emergency Solutions (HEROES) Act is a 3-trillion USD stimulus package introduced in May 2020. The American Recovery Plan is a 1.9-trillion stimulus package introduced in March 2021.

Source: Authors based on EC Directorate-General for Budget (2021) and IMF Fiscal Monitor April 2021

¹ We focus on the euro area but, since many aspects of fiscal policy have an EU dimension, most of our analysis and policy recommendations apply to the EU. Nevertheless, we clarify the difference when necessary.

2. CHALLENGES

For Europe, the Covid-19 pandemic has not only been the main health shock since the Spanish flu a century ago, but also a major disruption of the EU main foundational element: the single market as a 'level playing field,' with its free movement of people, goods, capitals and services.

It is well understood that, in contrast to the financial and euro crises, Covid-19 has been an exogenous shock to all the countries, but with asymmetric consequences. In the EU, the experience of the euro crisis a decade ago and the global nature of the Covid-19 crisis have fuelled an unprecedented EU-coordinated reaction. The EA fiscal response has been similar – in terms of share of GDP – to the 2020 United States response, when one takes into account national automatic stabilisers (circa 5% of GDP²), the stimulus packages and the fiscal capacity of NGEU and related programmes. Nevertheless, there are important differences within the EA (see Figure 1³).

Furthermore, the growth prospects for the coming years are worse for the EA⁴. The US single market and, with a very different structure, China's single market are exiting from the crisis more rapidly and showing better capacities to react and recover in a world economy where large nations and large firms define the rules of the game. For the EU – and the EA within it – to be an important, wise, cooperative and competitive player in this global game, the first challenge that it must face is to recover the single market as a safe and inclusive engine of growth.

2.1. The EU single market as a safe and inclusive engine of growth

Recovery requires the right stimulus for sustainable and inclusive growth, building on elements of 'creative destruction,' for instance on an efficient online use of human resources.⁵ Unfortunately, most of the destruction in this crisis is unlikely to be 'creative': technologically efficient firms and small businesses may go bankrupt; there may be a wave of non-performing loans and pandemic fears may deter entrepreneurial risk-taking. Minimising the destructive risks is key to the recovery. Relaunching also requires a reallocation of resources – even new, additional resources if, as NGEU aims, digital and green innovation must be involved. An efficient reallocation requires tax distortions to be minimised; in particular, that reallocation across countries is not based on tax advantages within the EU.

However, the crisis has also produced a great resource for the recovery: household savings are at their highest in decades. Financial intermediation to match them with investments must work flawlessly. In particular, a 'level playing field' recovery requires lending rates to households, firms and start-up businesses not to have a 'country premium' and euro deposits to be equally safe across the euro area.

In sum, regarding these challenges relating to the single market and the access to finance, we advance the following recommendations:

1. The full fiscal capacity of NGEU and related programmes must be exploited without delay, making its implementation both transparent and agile and minimising uncertainty on what is to be expected from the EU and EA fiscal framework.

² IMF Fiscal Monitor, April 2021.

³ Figure 1 takes into account the US March 2021 third stimulus package of \$1.9 trillion, which – together with the first two packages (July and May 2020) – amounts to a total of \$4.9 trillion, i.e. 23.3% of GDP, which makes it substantially larger than NGEU et al. for the EU.

⁴ Year-to-year changes (2019-20, 2020-21 and 2021-22 projections): EA (-6.6, 4.4 and 3.8), US (-3.5, 6.4 and 3.5), China (2.3, 8.4 and 5.6), IMF World Economic Outlook, April 2021. These projected growth gaps are likely to be larger, given the state of the Covid pandemic in these countries at the end of April 2021.

⁵ See, for example, McKinsey Global Institute (2021).

2. The European Commission “fair and effective tax coordination” and Common Consolidated Corporate Tax Base initiatives must be relaunched and implemented to achieve a more harmonised fiscal framework.⁶
3. The Banking Union should be completed – in particular, the European Deposit Insurance Scheme (EDIS) and the EU resolution framework – and the Capital Markets Union strengthened, so as to have a less banking-dependent and more integrated Financial Union.⁷

2.2. The economic links within the euro area are stronger while divergence is greater than ever

Without the support of the ECB and the ESM in the euro crisis and also of the EIB and NGEU in the Covid-19 crisis, the situation would probably have been worse in the euro area ‘stressed countries’.⁸ Nevertheless, the history of the first two decades of the euro is not a history of convergence, as can be seen from Figure 2.⁹ This Figure also shows a common pattern in the growth of the advanced economies: after a severe crisis, the long-run growth rate recovers, but the GDP gap across countries created by the crisis generally persists (e.g. between the US and the euro area non-‘stressed countries’ after the euro crisis). This implies that divergences between countries are reflected in differences in GDP (or, better, GDP per capita) levels than in GDP growth rates. GDP level differences are often legacies of past gaps originating in crises. Given current (IMF and EC) forecasts, it seems that this effect will also be a feature of the Covid-19 crisis in the euro area: even if after the pandemic and the first years of recovery growth rates are expected to converge, GDP level differences may even be larger than before the pandemic.¹⁰

What are the recommendations for euro area fiscal policies? We propose three:

1. A stronger definition of ‘crisis support’ and ‘recovery.’ The challenge is not just to recover the pre-crisis GDP (per-capita) levels, but to close the crisis gaps to avoid a permanent increase in income inequality (and related measures) within and between euro area Member States.¹¹
2. Euro area (and EU) fiscal policies should account for EU heterogeneity which, as was said, is likely to persist. In other words, they should not be designed for the day that EU countries converge – say in terms of per-capita GDP – since that day may never come.¹²
3. If support takes the form of loans (e.g. from NGEU and SURE), the issue is not just whether the loans are properly used (conditionality aims at this) or whether the resulting debt is sustainable

⁶ A step in this direction is the 18 May 2021 communication of the European Commission on ‘Business Taxation for the 21st Century’ COM (2021) 251.

⁷ See Box 1 and Figure A1 in the Annex.

⁸ ‘Stressed countries’: Greece, Italy, Portugal and Spain.

⁹ In Figure 2, the data are normalised to 2008, 1st Q = 100. Figure A1 in the Annex shows little progress in financial integration across EA countries.

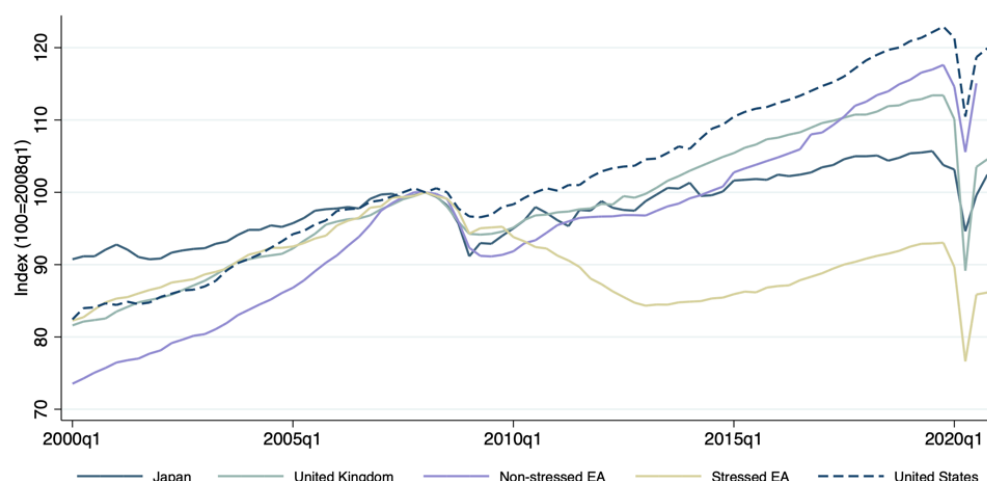
¹⁰ The EC forecast of May 2021 and the IMF World Economic Outlook of April 2021 expect that all the EU countries will return to positive growth in 2021. Nevertheless, their growth paths remain largely heterogeneous, as some Member States will reach their real GDP pre-pandemic growth rate this year, while others will not. In terms of real GDP level, the EC and the IMF predict that all the EU countries except Italy will attain their pre-pandemic real GDP levels by 2022. The two forecasts are more optimistic for some countries such as Luxembourg, Poland and Sweden, which are expected to already catch up by 2021. Current forecasts cannot exclude exceptions to the ex-post convergence of growth rates, as happened in the aftermath of the euro crisis with the exceptional expansion of Ireland and the decay of Greece (see Figure A2 in the Annex).

¹¹ If one looks at the level of GDP per capita in purchasing power standards reported by AMECO, differences across the EA (and the EU) are noticeable. In 2019 on an index of 100 representing parity within the EA, France (101), Germany (114) and the Netherlands (121) record levels of GDP per capita above the EA average, while the opposite is true for Cyprus (85), Italy (90), Greece (62), Portugal (75) and Spain (85). In addition, the gap between Member States has widened in the last decades. While the standard deviation of GDP per capita in purchasing power standards was around 9 for EA countries in 2000, it has risen to 15 in 2019.

¹² Policy design for ‘convergence days’ is not uncommon in the EU. For example, setting up risk-sharing mechanisms has often been seen as a necessity, but one to be implemented after convergence takes place, e.g. The Four and Five Presidents’ Reports, Van Rompuy et al. (2012) and Junker et al. (2015).

(which is what debt sustainability analysis assesses). These are two very important issues, but there is an additional one that euro area fiscal policy must take into account: the fiscal burden of the debt should at least not widen GDP (per-capita) differentials.

Figure 2: Evolution of real GDP in selected advanced economies



Note: The category Stressed EA is composed of Greece, Italy, Portugal and Spain

Source: OECD National Accounts Statistics

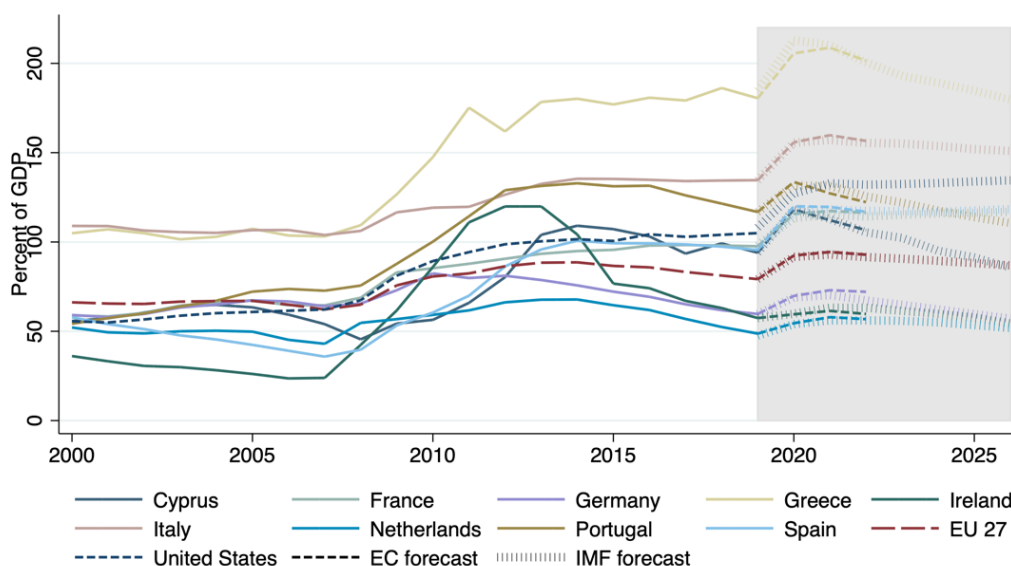
2.3. The euro area national sovereign debt level post-pandemic

At the start of the Covid-19 crisis, the sovereign debt to GDP ratio in the euro area as a whole was well above its 60% target, following a growing trend that started with the financial crisis and picked up in 2017 (nevertheless, a milder expansion than in the US; see Figure 3). The crisis is expected to increase this level – in the euro area from 84.0% of GDP in 2019 to 98.2% in 2021 (in the US from 108.2% to 132.8%) – and after the crisis it should decrease to 91.9% in 2026, which is still far from the 60.0% of the Maastricht Treaty, which is used as reference in the SGP legislation. In contrast, in this period the US is expected to continue its upward trend to 134.5%.¹³ Furthermore, the crisis is also expected to increase the sovereign debt differences among euro area countries (Figure 3).

However, in a radical contrast with the years of the euro crisis, these differences do not translate into sovereign debt interest rate spreads in the euro area. Two factors explain this: first, the international predominance of low interest rates; and, second, the fact that the Eurosystem holds more than 20% of the sovereign debt of EA countries (Figures 4 and A3). In particular, the high share of sovereign debt held by the ESM and the Eurosystem shields the sovereign debts of the 'stressed countries' (Figure A4).¹⁴ This is probably the best proof of the power of *EA fiscal policy* after the euro crisis (2010-12).

¹³ IMF World Economic Outlook, April 2021.

¹⁴ See also Corsetti et al. (2020).

Figure 3: General government debt forecasts

Note: IMF WEO April 2021 forecast and EC AMECO May 2021 forecast. The former ends in 2026, while the latter ends in 2022.

Source: AMECO and IMF World Economic Outlook

There are other elements that characterise what is the *de-facto* new fiscal framework in the EU:

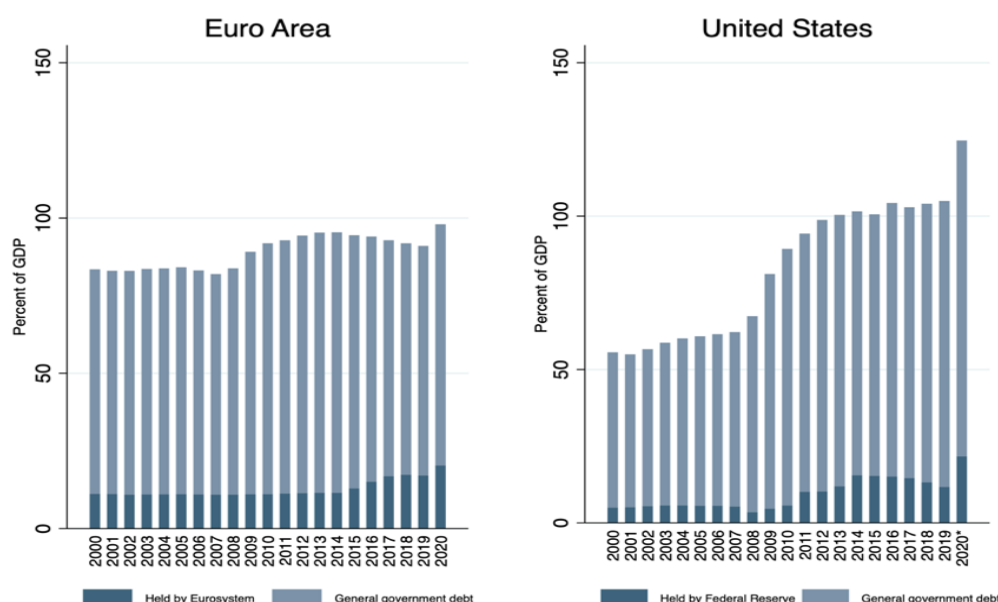
- *The fiscal role of NGEU grants and loans* (€ 312.5bn grants + €360bn loans). For their size and risk-sharing (solidarity) nature, NGEU grants are a novel EU fiscal figure. More importantly, to finance them and to provide the NGEU loans (to be repaid by borrowing MS by 2058) the EU is issuing Eurobonds and will need to use its – possibly new – own resources.

- *The EC is opening a 'temporary' treasury.* "The Commission will need to execute financing operations up to EUR 150-200 billion per year over the period to end 2026. This amount is comparable with the funding needs of the largest Member States."¹⁵ A corollary of this need to raise up to "a maximum of EUR 806 billion" is that the expansion of the EC fiscal capacity represents a qualitative change in terms of fiscal responsibility: the EC will become the leading official lender and Eurobond issuer in the EU.¹⁶

- *No long MoUs.* In addition, in radical contrast to the euro crisis, ex-ante conditionality with detailed MoUs is not part of the financial support offered to the member countries. Either minimal objectives are required – i.e. unemployment benefits (SURE), Covid-health-related expenses (ESM), digital and green investments (RRF) – or there is a more comprehensive assessment linked, *inter alia*, to the European Semester (RRF; we come back to this later).

¹⁵ European Commission, Communication from the Commission to the European Parliament and the Council "on a new funding strategy to finance NextGenerationEU," COM(2021) 250.

¹⁶ It should be noted that by its Treaty the ESM has a maximum borrowing capacity of €500bn, which would be almost achieved if its PCS programme were to be fully utilised. However, while the lending terms of the ESM PCS are known, the pricing and maturity policy for RRF loans still needs to be finalised.

Figure 4: General government debt and central banks

Note: The estimate for 2020 for the United States is still provisional

Source: ECB Statistical Data Warehouse and US Department of the Treasury

- *A multi-headed large fiscal player.* Even if there is a unique overall “large player effect” providing the Member States with stability and more – and on better terms – borrowing capacity, there is not an explicit large player strategy defining an EA (and EU) fiscal-debt policy. Even if there is communication and implicit coordination across EU/EA institutions, it does not translate into – and, more importantly, it is not perceived as – a coherent unique fiscal debt policy.¹⁷

- *Temporality.* The new elements of the *post-Covid-19-crisis EU* and the *EA fiscal framework* are, in principle, short-lived (until 2026). This has made the framework politically feasible, since it is based on a ‘solidarity principle’ and prevents implicit transfers across EU countries from becoming permanent. However, it also creates uncertainty about the *post-Covid-19-crisis EU and EA fiscal framework*. This is particularly relevant to long-term commitments, which need to be made for NGEU to be fully effective, such as long-term sovereign debts (which may need to be rolled-over) and structural reforms (which may need further support) to enhance ‘resilience.’

There are two implications for the EU and EA fiscal and institutional framework:

1. With NGEU, a new fiscal policy and institutional framework is effectively being developed. In the financial and euro crises there were EA institutional developments, with the creation of the ESM and the development of the Banking Union. In the Covid-19 crisis, there have not been proper institutional developments, but, with the increase in its fiscal capacity (to manage NGEU and SURE), the EC has assumed a new role as (temporary) Treasury of the EU, with the capacity to become the largest official lender and Eurobond issuer in the EU.¹⁸

¹⁷ In particular, Debt Sustainability Analysis is a key element in the implementation of a debt policy. The EC produces the *Debt Sustainability Monitor* and the ESM develops its own DSAs for its lending programmes, while DSA is neither part of the ECB public sector purchase programme (PSPP or PEPP) nor will it be part of the NGEU lending programmes. Nevertheless, the existence of – and participation in – all these programmes determines euro area country sovereign DSAs.

¹⁸ The EC Treasury (formally in DGBUDG) is similar to most EA Treasuries, which directly rely on their fiscal authorities, but it is different from them not only because of its ‘temporality’ but also because of its role as a lending institution.

2. *Public debt and risk-sharing are taking centre stage in EU-EA fiscal policy.* With the current Eurosystem and ESM holdings of euro area sovereign debt and the new NGEU and SURE debt, national debt spreads will be more interlinked than ever, strengthening the leading role of the EU and EA institutions in the European sovereign debt market. Furthermore, since Covid-19 is unlikely to be the last exogenous shock that the EU will suffer in the 21st Century and unemployment fluctuations will remain, the need for risk-sharing policies and mechanisms will not disappear with the pandemic crisis.

2.4. The fiscal stabilisation policy and its mix with monetary policy

The current *EA fiscal stabilisation policy* has two uneven legs. The main one is the 19 national stabilisation policies with their own automatic stabilisers and recourse to sovereign debt, a policy 'subject to' the SGP. The other is the fiscal impact of ECB monetary policy.¹⁹

Behind the Maastricht debt and deficit thresholds, and the following SGP, there was a basic understanding that even if there are different authorities for fiscal and monetary policies (which is certainly the case in the euro area) these policies are interlinked and, like two sides of the same coin, ultimately cannot be separated.²⁰ In particular, the ECB price stability mandate can be threatened by accumulated national debts, a burden that can always be lightened with debt inflation. In fact, an efficient design of fiscal and monetary policies takes this link as given, and then assigns policies to different institutions with the aim of having clear dividing lines between the policies, while exploiting complementarities and fostering cooperation.

The *independent* ECB is the main euro area institution and the SGP is the dividing line. In the last two decades, the ECB has not blinked and has consistently followed its price stability mandate. The SGP certainly played its role at the beginning of the euro, but then, as is well known and documented,²¹ violations of the rule have been more the norm than the exception. Mostly as a result of this, in different attempts to make them more flexible, the SGP "rules have become complex, opaque and are applied with substantial arbitrariness."²² Nevertheless, the main concern from the beginning was that, by trying to induce sovereign fiscal authorities to constrain their levels of sovereign debt *and* to pursue a countercyclical fiscal stabilisation policy, the SGP rules were failing to do the latter without guaranteeing the former, as the euro crisis dramatically revealed. This is a topic that has been widely studied and discussed. We extract five lessons from past experience and current empirical research:

1. The evidence is not that EU governments follow pro-cyclical fiscal policies. Their fiscal plans are mostly anti-cyclical, although the final fiscal outcomes are procyclical (Gootjes & de Haan, 2021).
2. "Pro-cyclicity in bad times is the flipside of pro-cyclicity in good times and the failure to build fiscal buffers" (Larch *et al.* 2021):²³
 - a. 'too loose in good times', because of political economy and/or time-inconsistency problems – in good times it is good to spend!

¹⁹ With its unconventional monetary policies of asset purchase programmes (PSPP, CSPP and with the Covid crisis PEPP) and targeted lending programmes (TLTROs) in a period when the interest rate, the traditional monetary policy stabilisation instrument, has been locked by the Effective Lower Bound (ELB). We now briefly discuss these 'two legs.'

²⁰ Sargent and Wallace called this "the unpleasant monetarist arithmetic," which was later further developed into 'the Fiscal Theory of the Price Level' (Sargent, 2012; Cochrane, 2021).

²¹ See, for example, Thygesen *et al.* (2020).

²² Roel Beetsma, in response to the CEPR CFM Survey (June 1, 2021) showing unanimous consensus among 'prominent economists' on the fact that "the existing fiscal rules for European Monetary Union members require revision."

²³ Theirs is also the lesson 3 quote, and lesson 4: in their analysis of EU fiscal rules. Larch *et al* detect a stabilising effect of an 'expenditure rule' even before it was introduced in the SGP in 2011.

- b. 'too tight in bad times', because debt sustainability is at stake (fears, and costs, of spreads) not because of the SGP limits.
3. "Fiscal policy is only able to stabilise the economy if sustainability is preserved in the long run."²³
4. When debt sustainability is preserved, an *expenditure rule* can do a good stabilisation job.
5. The enforcement of rules requires *carrots* and *sticks*. SGP carrots have worked,²⁴ while sticks – such as the 0.5% of GDP fine for non-compliance – have not; sanctions are seldom credible. Nevertheless, one should not underestimate the enforcing role of *peer-pressure* in normal times (e.g. the EU surveillance framework).

These lessons suggest taking a closer look at the dynamics of debt. Current sovereign debt is the accumulated past history of primary deficits and the net cost of having a stock of debt, given by the difference between the real rate of interest (nominal rate minus inflation) and the real growth rate. That is, sovereign debt at the end of the year, v_{t+1} (the log of the debt to GDP ratio), is equal to its value at the beginning of the year, v_t , plus the net cost of keeping debt, $r_t - g_t$, and the year's primary deficit, $-s_t$ (s_t being the primary surplus). That is:²⁵

$$v_{t+1} = v_t + r_t - g_t - s_t$$

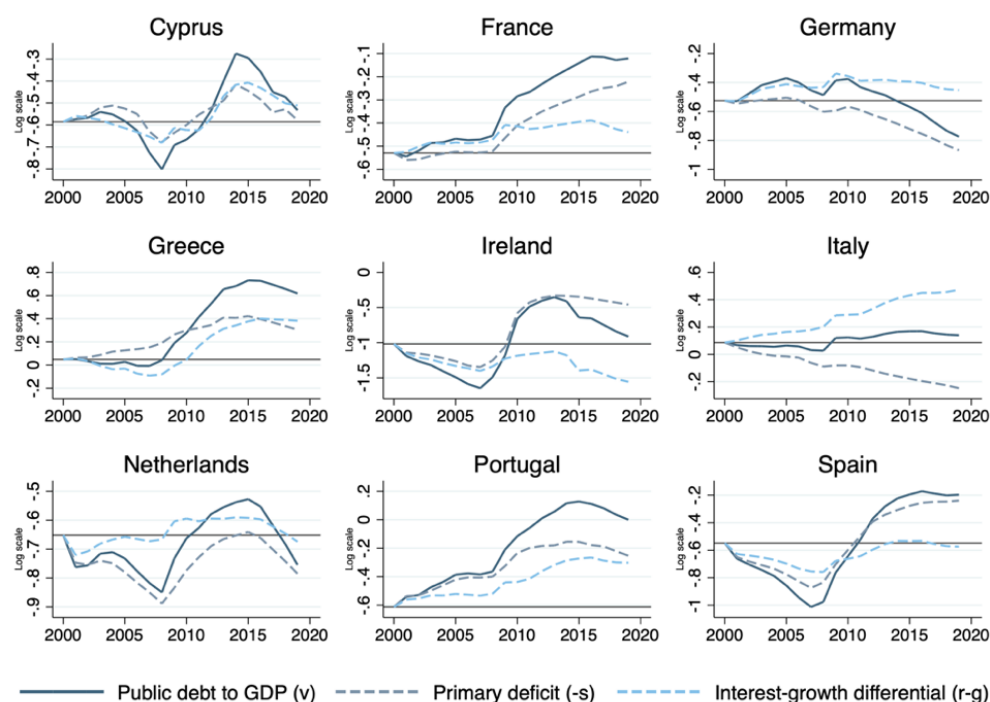
Figure 5 shows this decomposition starting in 2000 (i.e. v_{2000}) for several euro area countries (Figure A6 in the Annex for all of them). Had the accumulation of debt been costless (i.e. $r_t - g_t = 0$), then the evolution of debt would have been just the accumulated primary deficits (i.e. the solid line and the darker dashed line would coincide). This is almost the case of Spain, where higher primary deficits translated almost one-to-one into higher debt, and the primary surpluses of the first decade rapidly became deficits and accumulated debt after the euro crisis. In contrast, the evolution of Italy's debt is the result of two conflicting forces: a remarkable history of increasing accumulated primary surpluses and two decades of growth decline resulting in accumulated costs ($r_t - g_t$), with the upward pressure winning the race.

Figure 5 shows the heterogeneity of EA sovereign debt paths and two important facts observed in most EA countries. First, even if the last decade has been one of low interest rates, accumulated $r_t - g_t$ remains a cost. Second, the trade-off between macroeconomic stabilisation and debt consolidation is still present, even in countries experiencing negative $r_t - g_t$ (e.g. Ireland and Slovakia).

However, behind the evolution of primary surpluses there are many elements that either are not under the full control of the fiscal authorities (e.g. the country's current account) or they are, but in a structural form and not as a stabilisation instrument (e.g. the pension system). In sum, the value of debt, as the present value of expected (discounted) future primary balances, takes into account implicit government liabilities. Therefore, prudential surveillance and DSAs must take them into account too. This takes us to a discussion of the 'other leg.'

²⁴ For example, the Maastricht rules worked as a *carrot* for peripheral countries that did not have guaranteed entry in the euro area (Giovannetti *et al.* 1998).

²⁵ Note that we simplify by assuming no discounting. For a full discussion and derivation of the debt accumulation equation, see Cochrane (2021 and 2020).

Figure 5: Decomposition of the value of public debt

Note: Decomposition based on Cochrane (2020)

Source: AMECO and Eurostat

In normal times, when the monetary authority can stabilise the economy with interest rate movements, there is no need for fiscal macroeconomic stabilisation. Unfortunately, normal times may be rare, because the monetary instrument is locked by the Effective Lower Bound (ELB), or because in a monetary union national automatic stabilisers and fiscal policy do not dissipate fluctuation differences between Member States,²⁶ or because it is not a normal fluctuation but a severe crisis in need of a special stimulus, or a combination of these factors. Then, not only is there a role for fiscal macroeconomic stabilisation, but in particular there is a need for a monetary and fiscal mix with, for example, the use of prudential or quantitative easing policies. As last year's *Geneva Report of the World Economy* (Bartsch et al., 2020) emphasised, there is complementarity between fiscal and monetary policies: the fiscal authority may want to ease borrowing conditions, but to do this it may need the central bank to create fiscal space, for example by buying the sovereign debt of 'stressed countries.' Alternatively, for the central bank to effectively engage in QE, it may need the fiscal authority to create space – for example by providing public guarantees when the QE policies involve risk.²⁷ However, as we have emphasised, in the current *euro area fiscal framework* there is no treasury and the ECB has to do most of the fiscal and monetary mix on its own.

Finally, an important role of a country's treasury is to manage its finances and resources effectively. With the Covid-19 crisis, there is ample citizen support and expectations of the EU taking a larger role in managing European public health,²⁸ making the list of EU fiscal needs longer, and even longer if one

²⁶ It should be noted that when a monetary union is hit by a shock, optimal monetary policy would require giving more weight to the country that suffers the most from the shock, which is not what the ECB and the FRB do, Farhi and Werning (2017) and Ferrari et al. (2021).

²⁷ For example, the successful FRB 2009 TAF credit-easing policy could not be implemented by the ECB since there is no treasury (Gaballo & Marimon, 2021).

²⁸ According to the October 2020 Eurobarometer special survey, two-thirds of the respondents (66%) agreed that the EU should have more competences to deal with crises such as the Coronavirus pandemic and 54% believed the EU should have greater financial means to be able to overcome the consequences of the Coronavirus pandemic, with public health being a spending priority for the EU budget.

takes into account other ‘European public goods’ such as managing migration flows, digital security, etc.

The implications for fiscal policy and institutions seem clear:

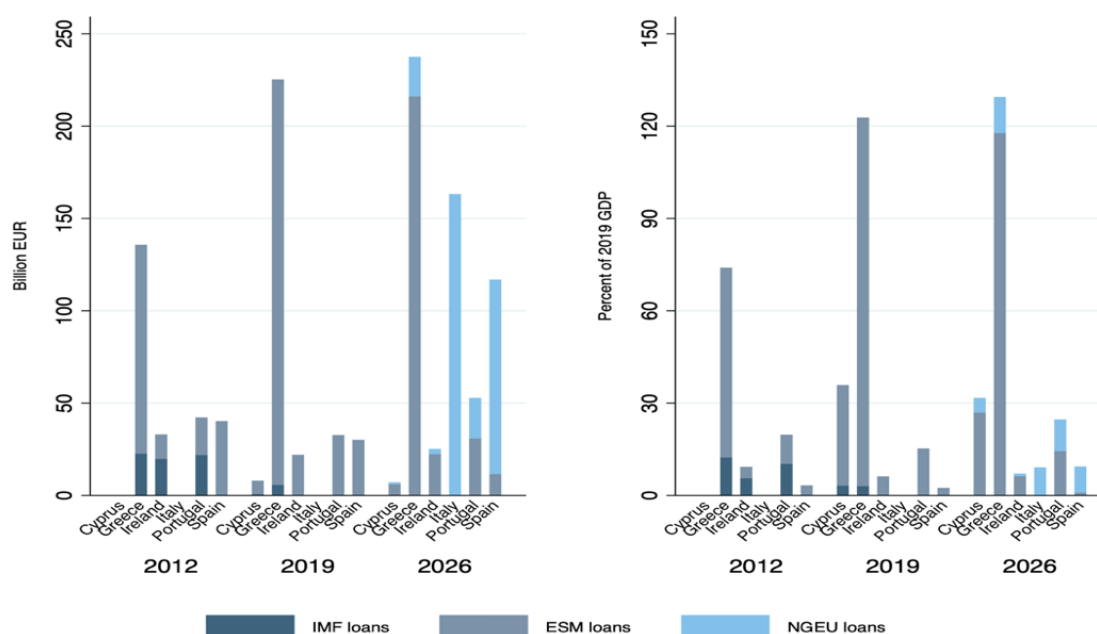
1. It is not just that the SGP needs to be revised, but that *the stability and growth framework* needs to be made more resilient with prudential surveillance and DSAs properly taking into account the evolution of sovereign (EU and national) debts.
2. Even with an exogenous global shock like Covid-19, there are asymmetric effects that a single monetary policy cannot correct, and there are no automatic fiscal stabilisers at EU or EA level. Furthermore, the ECB cannot, and should not, effectively (within its legal mandate) do all the monetary and fiscal mix that is needed in the 21st Century. Therefore, the Fiscal Union is in dire need of development.
3. There is a larger role for an EU (and EA) Treasury, since the list of *European public goods* is expanding – after Covid-19, starting with EU health safety – and only relying on coordination of national policies may not be efficient.

2.5. A new euro area sovereign debt scenario

As we have argued, the sovereign debt scenario in EA Member States changes in the aftermath of the Covid-19 crisis, which creates a specific challenge for Member States’ governments. Figure 6 shows the official lenders’ debt (loans only) holdings for six euro area countries (‘stressed countries’ + Cyprus and Ireland), assuming that up to 2026 they maintain the 2019 level of debt and only increase their debt by purchasing NGEU and related debt (not ESM), as stated in their Recovery and Resilience plans (May 2021).

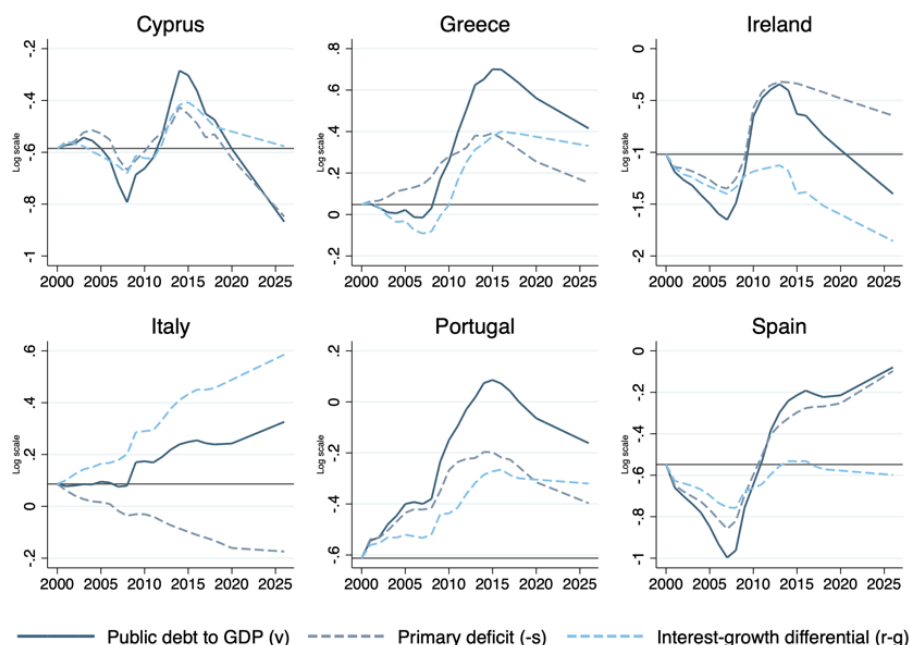
On the one hand, they will benefit from having this new debt ‘shielded by the EU’; on the other hand, if a Member State needs, or wants, to sell new debt, it will be competing with a large supply of Eurobonds²⁹ – presumably some bought by the ECB. Up to 2026, either the new sovereign debt will be priced like the Eurobonds or the Member State will first exhaust its NGEU *et al.* debt capacity. Beyond that, there will be tactical issues concerning how to coordinate debt auctions within the EA or offer different maturities, but the issue of debt sustainability will become more important – NGEU debt included. Figure 7 shows how different this issue is for different euro area countries. The figure extrapolates the debt decomposition of Figure 5 (and A5) up to 2026, keeping trends as given, except for the added debt liabilities: NGEU and Covid-stimulus-related debts. Among the selected countries, Spain is the most problematic, unless $r_t - g_t$ plays more in its favour, as it may, or the ‘shielding’ effect dominates, as it did for Greece.

²⁹ We consider Eurobonds all the bonds being issued by EU and EA institutions.

Figure 6: General government debt at the Eurosystem, ESM and IMF (2012 – 2026)

Note: NGEU loans are formed of RRF loans, ReactEU, Rural development and JTF. Some figures are still provisional

Source: AMECO, EC Directorate-General for Budget (2021), ESM Programme Database and IMF Treasurer's Department

Figure 7: Decomposition of the value of public debt after Next Generation EU

Note: Decomposition based on Cochrane (2020). The exercise consists of keeping the values of inflation, interest rate and growth at their 2019 levels and extrapolating the value of primary deficit by adding the prospective debt burden due to NGEU and SURE to the 2019 primary deficit.

Source: AMECO, EC Directorate-General for Budget (2021) and Eurostat

2.6. Additional long-run challenges

Expected low interest rates can be a blessing and a curse.³⁰ They can be a blessing since, as we have seen, with negative $r_t - g_t$ debts repay themselves – in the long run – and fiscal stabilisation policy can be handled with debt. But they can also be a curse, because they are also linked to low growth expectations with excessive savings – in particular, in safe assets – due to increasing risk perceptions (e.g. of pandemics), ageing, etc. Low interest rates also mean that monetary policy remains locked by the ELB and squeezes profit margins in the banking sector, with a corresponding credit squeeze – particularly for risky investments – allowing low-productivity investments to persist. As a result, the future path of $r_t - g_t$ is uncertain and differences across EA countries may prevail, or even be exacerbated, unless there are structural reforms.³¹

Ageing is one of the low-growth factors.³² It presents a challenge of its own in the coming decades, with an expected doubling of the dependency ratio (65+/20-64) in most advanced economies (Figure 8). This implies a crisis of unfunded pay-as-you-go (PAYG) pension systems, as PAYG is not an efficient system in an aging population. In sum, ageing creates implicit liabilities (health of the elderly is another), which must be taken into account.³³

These two long-run challenges have two implications for fiscal policy. First, given the uncertainty on whether low interest rates are a blessing or a curse, a *robust fiscal policy* must be suitable for different interest and growth rate scenarios. In particular, debt consolidation should not be dismissed, and neither should its possible trade-off with stabilisation.

Second, ageing and other long-term challenges (e.g. climate change) imply that *a longer and wider perspective must be taken*. Longer, because, for example, NGEU will live through the demographic transition and, possibly at a slower pace, because of climate change. Wider, because it is required in order to properly take into account future opportunities and liabilities (for example, in determining v_t).

3. THE EURO AREA FISCAL FRAMEWORK AFTER THE COVID-19 CRISIS

3.1. Institutional development: the EFF

Historically, the best legacy of severe crises and recessions has been institutional development, making economies more resilient. The case of the US in the 1930s is an example.³⁴ The ESM is an institutional offspring of the euro crisis, and it has played an important role in its resolution, and the NGEU can open the way to a further fiscal institutional development of the EMU, with an integrated fiscal framework and policy, with the SGP fiscal rule ceasing to be the central element and, eventually, a new EU

³⁰ Forecasts based on the Euro Overnight Index Average (EONIA) of the nominal rate and of market expectations of core inflation predict “negative real interest rates at roughly -2 percent for protracted periods” in the euro area in the next ten years (Demertzis & Viegli, 2021). See also Sargent (2012) and Cochrane (2021).

³¹ For example, capital misallocation in southern Europe (Chodorow-Reich et al., 2019; Gopinath et al., 2017).

³² For example, “demographic change can account for 25% of Italy’s growth slowdown” (Cooley et al., 2019).

³³ For example, in Spain to maintain the sustainability of the current system with a payroll tax, this tax would need to double (from 25% to 50%) in the next decades, an unbearable burden for the economy which, regardless of how it is financed, will drain its fiscal capacity. Of course, one could alternatively drastically reduce pensions or substantially increase the minimum retirement age, but both may be politically unfeasible, so a more radical and well-designed reform is needed (Díaz-Saavedra et al., 2021).

³⁴ There were regulation and institutional developments with the May 1933 Securities Act, which regulated the offering of securities and created the Federal Trade Commission (later the SEC), and the June 1933 Banking Act (the so-called Glass-Steagall Act), which created the Federal Deposit Insurance Corporation (FDIC).

institution: the *European Fiscal Fund*. There are already steps in this direction – the previously mentioned close coordination between EU and EA institutions in reaction to the Covid-19 crisis and the development of the EC ‘temporary’ treasury, – as there have been partial proposals, for example, to create a permanent *central fiscal capacity*.³⁵ In this subsection, we first present a basic design of what a *European Fiscal Fund* can be: its objectives and principles; second, we compare this design with the current EU and EA structure; third, we summarise new results in economic theory on the optimal design of a fiscal fund and, fourth, we propose a development of the fund in two phases. The first phase develops the design – in particular, a unique common and coherent fiscal policy – within the current EU and EA institutional and legal structure. The second phase confronts the legal (Treaty) changes required to institutionalise the *European Fiscal Fund* – in particular by breaking the unnecessary divisions between the EU and the EA. The *EFF* should be an EU institution encompassing coordination and interaction of the fiscal EU and monetary EA policies. Then, in the next subsection we make a proposal for a revision of the SGP fiscal rules in the context of EFF development.

A basic design for the EFF

Objectives:

1. To manage EU finances and resources effectively, in particular EU borrowing and lending activities, and provide public support for efficient provision of EU public goods and externalities.³⁶ To this end, the EFF would coordinate and work with national treasuries, other EU and EA institutions and international financial institutions.
2. To complement the ECB in the pursuit of a monetary and fiscal policy mix for socio-economic and financial stability, in particular with the development of EU safe assets.
3. To address large aggregate shocks.
4. To act as a crisis resolution mechanism for EU countries or economic sectors within countries.
5. To provide risk-sharing across the EU, either directly to countries or as a backstop for specific risk-sharing mechanisms (e.g. deposit or unemployment insurance).
6. To support targeted growth-enhancing expenditure and reforms of the Member States.

Principles:

- a. The EFF would be designed as an EU permanent institution, with a mandate to develop and implement a common stability and growth fiscal policy for the EU and be the guardian of its long-term fiscal commitments (i.e. EU debts, guarantees and other liabilities).
- b. Its mandate would define a commitment to long-term objectives (according to EU Treaties; in particular, EU economic growth and stability and social well-being) and would set EU short-term policies and programmes in accordance with them.
- c. As a fiscal institution of a union of sovereign countries, its policies and programmes should take into account the subsidiarity principle, the heterogeneity across EU countries and the principle that transfers among them should not be permanent beyond what has been agreed at the EU political level.
- d. A sovereign country may exit the Union at the cost of losing the benefits of being in the Union, possibly for an undetermined time. The EFF should try to prevent this.
- e. The EFF must respect national ownership of domestic fiscal policies, but – together with other EU, and EA, institutions – work and design common EU fiscal rules and policies to enhance the synergy,

³⁵ An EMU permanent central fiscal capacity was already mentioned in the Five Presidents’ Report (Juncker et al. 2015), which was followed by the European Commission proposal ‘on the establishment of the European Monetary Fund’ COM(2017) 827, and has recently been proposed by the European Fiscal Board (Thygesen et al., 2020).

³⁶ Note that these objectives are often divided between the Treasury and the Ministry of Finance. Similarly, as we discuss below, the extent to which the EFF *directly* manages EU finances and resources – other than EU debt and related fiscal liabilities and revenues – will be decided in the second phase. Nevertheless, if there is an institutional division of tasks, the common Objective 1 must prevail.

coordination and alignment of national policies with common EU objectives, in particular avoiding negative spill-overs and moral hazard problems.

- f. The EFF would be accountable to the European Council and the European Parliament, while being an independent institution in the pursuit of its mandate according to its objectives and principles – in particular, regarding the specific design and implementation of its programmes and contracts. The EFF would collaborate with other EU, EA and national institutions and would take into account the advice and surveillance role of the European Fiscal Board and other independent fiscal institutions.
- g. In all its work, the EFF would maintain and promote a strict principle of transparency.

The **funding** would come from: *i)* EU own resources: EU member countries' direct additional contributions to the EU budget, or indirect contributions in the form of guarantees, and revenue from EU taxes (new own resources); *ii)* auctioning Eurobonds, backed by EFF assets and EU own resources (*i*), under appropriate regulations. EFF assets would be generated by its lending and purchasing activities. It could lend to Member States and other EU institutions, and the EFF regulations would define which other lending and asset purchase activities it could perform. The EFF would be subject to risk-management regulations in all its lending and asset purchase activities.³⁷

The basic design of the EFF in the current EU and EA framework:

In the *post-euro-crisis EU and EA fiscal framework*, the European Commission manages most of the EU resources corresponding to objective (1), but not all: the ESM, as a crisis resolution mechanism (objective 4), is also involved – together with the EIB – in supporting investments (objective 6). Furthermore, now with NGEU, the EC's management of resources has *temporarily* expanded to addressing large shocks (objective 3) and in doing this it is taking on board unprecedented borrowing and lending activities,³⁸ providing targeted risk-sharing (objective 4) with SURE and supporting growth-enhancing expenditure (objective 6) with RRF.

Regarding the objectives listed above, the missing elements are: its complementarity with the ECB (objective 2);³⁹ a broader coverage of risk-sharing (objective 5) and of investment support (objective 6); and in particular the fact that the new NGEU responsibilities are not permanent, as principle (a) states. Nevertheless, the broader management achieved could be dysfunctional unless the EC 'treasury' and the ESM work in close cooperation and there is a unique fiscal authority (we come back to this).

Regarding the principles listed above, the current design is not of a permanent and independent fund. Principles (a) and (f) are related for two reasons. First, a permanent design and independence from political pressure are crucial for the credibility of the EFF institution. One can argue that the European Commission, with its 'temporary' treasury and the ESM as a crisis resolution mechanism will uphold these principles in the *post-pandemic fiscal framework*, with the exception of the EU treasury not being permanent and not being a unique institution, and in particular that the principle (a) is already part of the current fiscal policy mandate with the SGP and that the EU 'temporary' treasury is already "subject

³⁷ For example, European Commission Implementing Decision C(2021) 2502 defines the governance arrangements and risk management systems for NGEU.

³⁸ The Commission was already performing borrowing and lending activities, e.g. EFSM, before the ESM, and the Balance of Payments (BoP) mechanism.

³⁹ Although the bonds issued by the ESM are safe and have contributed to making sovereign debt safer (Figure A3), it is expected that NGEU Eurobonds will also be safe, as the first SURE social bonds have been perceived to be.

to a robust and independent risk management and compliance framework" (COM(2021) 250).⁴⁰ These are necessary and important elements, but the EFF design goes a step further.

Note that (a) requires that the *EFF is the guardian of long-term EU fiscal commitments*, in particular of future EU primary surpluses backing Eurobonds (bonds issued by EU institutions), a guarantee that has as a last resort contributions from the Member States' gross national income (GNI). This is similar to *the ECB being the guardian of the euro*, which is at the same time a common permanent asset of the euro area Member States (e.g. seigniorage) and a current joint liability towards euro holders. In the case of the ECB, its independence is needed to avoid, for example, interference aimed at monetising the EA Member States' sovereign debt as a short-term solution to fiscal debt overhang problems (i.e. avoiding fiscal dominance). NGEU debt has a relatively short horizon for its execution, 2026, but a relatively long horizon for its redemption, 2058. The short horizon is consistent with the length of the MFF and the fact that it is founded on a 'solidarity' principle, while the long horizon goes way beyond the current European Commission's mandate. The long commitment has no anchor other than the future European Commissions and they – together with the corresponding European Councils – may have many other pressing commitments: time-inconsistency may prevail. That is, an 'independent' EFF – i.e. satisfying (f) – has a more *robust* institutional design, which strengthens the value of Eurobonds, and more generally the EFF principle (a).

Second, (a) and (f) are the two principles that will require legal changes in order to be implemented. Does this mean that there cannot be an EFF in the *post-pandemic EU and EA fiscal framework* within the current (institutional) setting? We do not think so. It means that, paraphrasing the Pierre Werner Report design for the overall development of EMU, the development of the European Fiscal Fund will need to be done in two phases, with the first not requiring Treaty changes, but integrating and developing the other missing elements, so as to define a coherent fiscal framework and common fiscal policy. To better characterise this, we first sharpen our benchmark EFF by giving it a theoretical foundation and extracting lessons from it.

An optimal design for a Fiscal Fund (FF)

To implement its objectives (in particular, 3-6) a Fiscal Fund (FF) can have different programmes. Each one ultimately relies on a contract between the FF and a country (a Member State or alternatively any other eligible EU legal entity). This contract must take into account the underlying risks and the above principles: (a) and (b) as a social welfare maximisation objective, and (c) and (e) as restrictions (i.e. no permanent transfers, possibility of exit, moral hazard). If, as it is the case in a union, there is a long-term relationship between the FF and the country, the optimal solution to this 'contracting problem' is a long-term contract which integrates two components: debt and insurance. We call this (constrained) optimal solution the 'fund contract.' Without entering into technical details, there are ten lessons from the characterisation of the 'fund contract' that are relevant here:⁴¹

- I. *Proper DSA*. The fund contract is based on a country-specific *stochastic debt sustainability analysis* (SDSA) – that is, a risk assessment of future paths of feasible consumption and employment achieved with a sustainable contract, i.e. without default or unwanted transfers in different uncertain future states (associated with GDP levels and primary balance shocks, in particular in

⁴⁰ For example, the "European Commission Decision on the governance arrangements and risk management for NGEU – i.e. COM(2021) 2502 – (...) establishes the principles and structures needed to ensure the robust and independent oversight of all NGEU financial operations, based on separation of roles and responsibilities" (COM(2021) 250).

⁴¹ We rely here on the research 'on the optimal design of a fiscal fund' which started with the ADEMU Horizon 2020 project (2015 – 2018), <https://ademu-project.eu>. For the layout of the model, its calibration and lessons I – VI and X, see Ábrahám et al. (2019 b); for VII, see Liu et al. (2020); for VIII, see Ferrari et al. (2021) and for lesson IX see Simpson-Bell (2019).

states in which, given the level of debt, the country could default or its debt could become unsustainable).

- II. *State contingency provides risk-sharing.* The (constrained) optimal fund contract between a borrowing country and the FF is not a debt contract but a long-term state-contingent contract, which provides risk-sharing, i.e. it is counter-cyclical (giving to the FF in good times in exchange for transfers in bad times), while debt contracts are not.⁴²
- III. *Larger lending capacity with minimal conditionality.* Given II, sustainable levels of debt are larger with a fund contract than with a standard sovereign debt contract.⁴³ Furthermore, a fund contract does not require special conditionalities. Nevertheless, successful efforts to reduce country risks can improve the terms of the contract. In other words, a FF's programme can provide a menu of risk-dependent contracts.⁴⁴
- IV. *Crisis resolution.* The insurance component of the fund contract not only provides risk-sharing and helps to prevent crises, but if a crisis happens due to a large severe shock it also acts as a powerful crisis resolution mechanism.
- V. *Safe assets.* The fund contract transforms risky non-contingent sovereign debt (with default risk) into a safe state-contingent fund contract. This also means that the fund contract is a safe asset of the FF, and therefore to finance the fund contract the FF can issue safe bonds (i.e. safe Eurobonds).⁴⁵
- VI. *Self-financing.* An implication of V is that the FF can be self-financing, with EU own resources only being needed as backup guarantees.
- VII. *Sovereign debt stabilisation.* The FF does not need to hold a large share of a country's debt for the fund contract to have a large (leverage) effect. This is to make the rest of the sovereign debt, held by others, safe, not just the part held by the FF.⁴⁶
- VIII. *Optimal fiscal and monetary mix.* When the FF operates in a monetary union (e.g. EMU), optimal fiscal and monetary policies reinforce each other as stabilisation policies (i.e. they are complementary).
- IX. *Reforms and moral hazard.* The fact that the fund contract depends on the risk-assessment of the country is already an incentive for a debtor country to make easy-to-monitor reforms (see footnote 44), but for other reforms (e.g. tax administration) or growth-enhancing investments the effort a country makes may not be contractable (respect for ownership). In this case, the fund contract can incorporate this element and incentivise the right amount of effort (i.e. it can solve the moral hazard problem).
- X. *Large welfare gains.* When we calibrate our optimal design of the FF to a country with the risk profile typical of a 'stressed country,' a simulated euro crisis is substantially less severe (no austerity plan), and in general welfare gains – in consumption-equivalent value terms – are substantial, with respect to having defaultable sovereign debt as the stabilisation and crisis-prevention tool (see footnote 41).

In short, there are three main lessons from the research on the optimal design of a FF. First, the (constrained) efficient design makes the FF a *self-enforcing* mechanism. Second, there are complementarities across the objectives, for example between *stabilisation* and *crisis resolution*: in normal times the fund contract is counter-cyclical, but it also makes provisions for rare crisis events. Third, with its fund contracts the FF can become a leading player in the sovereign debt market, even if

⁴² The degree of state-contingency is a contract design problem which can be optimally solved or simplified by having a risk-sharing contract only insuring against extreme events.

⁴³ Provided that defaulting to the FF is costly, which it should be.

⁴⁴ For example, a reform of the social security system can substantially change the risk profile of a country (regarding its future primary balances). To simplify, the FF can offer two different contracts: with and without a major reform. This is an ex-ante condition that is easy to monitor and a procedure that respects 'reform ownership' (Principle e).

⁴⁵ This relies on the optimal design of the fund contract and the consequent capacity of the fund to operate in the international capital market with AAA reputation, to which, in the case of the EEF, EU guarantees will only act as the ultimate backup (see the above funding description).

⁴⁶ This requires that the fund, in designing the contract, takes into account the overall debt of the country, not only the fraction covered by the contract.

it only holds a relatively small fraction of a country's sovereign debt. As a result, market discipline – in particular, sovereign debt stabilisation – is also shaped by its fund contracts. One can argue that there can be unprecedented and unforeseen events, like Covid-19, for which the fund contract is silent. This is true of any design, but the fund contract enhances the fiscal capacity of participating countries (Lesson III). Therefore, it is also a good design for unforeseen events.

In sum, *the main legacy of the Covid-19-crisis can, and should, be the institutional development of an efficient European Fiscal Fund*. There are economies of scale in having a unique, permanent and independent EFF. However, the main advantage relies on having a unique coherent common EU fiscal policy, not necessarily a unique institution or unified institution.

The development of the EFF in two phases

Phase I should start with the ESM, with its revised Treaty, and the implementation of the European Commission's 'new funding strategy to finance NextGenerationEU',⁴⁷ with the EC (DG BUDG) and ESM working in close collaboration on their already set respective tasks and common elements (e.g. Member States borrowing from both). Nevertheless, the *EFF fiscal policy* can, and should, be developed as much as possible within the current EU and EA legal framework. Some of these developments should be:

A single EU Fiscal Authority. To enhance this EU-EA collaboration, the development of a joint *EFF fiscal policy* should be fostered and a unique fiscal voice to coordinate with the ECB and other institutions should be provided: an EU (and EA) Fiscal Authority – say, *a European Minister of Economy and Finance*, as already proposed by EC President J-C Juncker in 2017,⁴⁸ with the dual role of EC Vice-President and President of the Eurogroup. This can be an important step, provided it does not deter from implementing Phase II, where the final governance of the EFF is legally established satisfying principles (a) and (f).⁴⁹

The Eurosystem of Treasuries. With the EU becoming one of the world's largest direct public lenders, the existing coordination with EU national treasuries should become much stronger – e.g. in the design and timing of debt auctions – but it would also be important in order to enhance the transparency of EU fiscal finances and create new collaborative practices, which can lead to a proper Eurosystem, with the EFF having a central role, even if – in contrast with the ECB regarding monetary policy – core aspects of fiscal policy will remain the responsibility of national fiscal authorities.

Risk and state-contingent debt contracts. Two salient features of 'optimal fund contracts' are the fact that they are based on country-specific risk assessments and that they are state-contingent. The former is already a feature of ESM country programmes with very long maturity, postponing the roll-over problem for more than thirty years (e.g. for Greece). There is also some *ex-post* state-contingency in the form of early repayments or debt reliefs.⁵⁰ Nevertheless, a more efficient contract is to have *ex-ante*

⁴⁷ COM(2021) 250.

⁴⁸ Juncker's was a call for efficiency, but in the aftermath of the Covid-19 crisis the role and possible efficiency gains are much larger. See https://ec.europa.eu/info/sites/default/files/european-minister-economy-finance_en.pdf

⁴⁹ For example, in Phase II the tenure-term of office of the President of the EFF does not need to be the same as that of the European Commission, in the same way that the term of the President of the ECB does not. We do not discuss EFF governance here (or conjecture on names) but the election of its president could be similar to the election of the President of the ECB (or a process with higher professional and democratic legitimacy?).

⁵⁰ For an overview of these forms of *ex-post* state-contingency by assisted EU MS, see [https://www.europarl.europa.eu/RegData/etudes/IDAN/2020/651367/IPOL_IDA\(2020\)651367_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/IDAN/2020/651367/IPOL_IDA(2020)651367_EN.pdf).

state-contingency with a long-term debt-consolidation target.⁵¹ NGEU debt contracts could also take this form.⁵² Note that this will introduce an automatic EU stabiliser for debtor countries.

Conditionality and sovereign debt spreads have traditionally been seen as two alternative ways to discipline debtor countries, by official lenders and the market respectively. Both need to be reassessed in designing a (Phase I) EFF fiscal-debt policy. Conditionality needs to be reassessed because the IMF and EFSF/ESM experience with MoUs shows that many conditions imposed have been ineffective, while they may have been socially and politically costly.⁵³ This reinforces the fund contract design that minimises *ex-ante* conditionality and relies more on *ex-post* state contingency or risk-reassessment.⁵⁴ Market discipline needs to be reassessed because, as we have said, once the EU and EA become major players in the European sovereign debt market, with an important part of Member States' sovereign debt in the Eurosystem of central banks and other EU central banks, how the market values these sovereign debts greatly depends on how these EU and EA institutions treat them and value them. This brings us to another reassessment.

Surveillance and the central role of DSA. With the European Semester, the previously cited different DSAs and the surveillance work of the ECB-Eurosystem and of the EFB and other independent fiscal institutions and international organisations (OECD, IMF), there is a vast amount of European macro-prudential surveillance, assessment of country risks and reforms needed, etc. Nevertheless, the main elements of these country analyses should be *common knowledge*, at least among relevant actors – say, lenders and borrowers and their respective institutions, national parliaments included.⁵⁵ In sum, surveillance by different sources should provide the *common longer and wider perspective* of the evolution of the Member States, EA, and EU economies that we previously referred to. The main determinants of this evolution – in particular, the evolution of national and EU/EA sovereign debts and their *r-g* and *s* paths – define the DSAs, on which lending decisions are made. Regarding EU/EA borrowing and lending, who should be responsible for the DSAs? This is not a trivial question, since important professional resources are needed, and their independence from political pressure is crucial to make them credible and consistent. Given this, a common recommendation is that the EFB and IFIs should be responsible, not the funding institutions.⁵⁶ We think independent fiscal institutions – in particular, the EFB – must be responsible and therefore must have the necessary human-technical capacity – ‘check balances’ are needed. However, the EC (eventually the EFF) is directly accountable to the European Parliament and, as the ESM and the EIB, to the financial markets, where they raise their funds. Should the EC and ESM outsource the DSA on which they base their lending decisions? Also, should they have the capacity to ‘check’ an outsourced DSA? If, as we think, the answer to the latter question is yes, the answer to the former should be no. Is this an inefficient duplication of resources?

⁵¹ For example, in the case of Greece, having repayment obligations to the ESM contingent on the state of its economy – say, GDP per capita – with higher repayments in good times and, possibly, new transfers in bad times. In fact, Spain had been anticipating its repayments to the ESM in the growth years before Covid-19.

⁵² That is, state-contingency is consistent with COM(2021) 250.

⁵³ The recent study by Clancy *et al.* (2021) exploring the EFSF/ESM lending programmes database shows that, among the very large number of conditions that different MoUs specified, compliance rests on a small number of critical conditions – mainly quantifiable fiscal and financial sector stabilisation conditions. These findings are consistent with the IMF experience and new program designs (IMF 2012 and 2019).

⁵⁴ *Ex-post* risk-reassessment means that the terms of the fund contract can be adjusted – say, after seven years or after unexpected events – if there is statistical evidence that the risk-profile of the country has changed (for exogenous or endogenous reasons). This feature was not in the previous decalogue of lessons, but it can be incorporated.

⁵⁵ The concept of *common knowledge* comes from game theory and it means that if there are two agents – say, you and I – and there is some information, we have *common knowledge* if: I know, you know, I know that you know, you know that I know, I know that you know that I know that, ... Taking this common knowledge rationality to its limits one can conclude that “we cannot agree to disagree” (Aumann’s agreement theorem). Nevertheless, it would already be a major step to have a broad consensus on what the main critical factors are threatening, or weakening, the growth and stability of the EU and its Member States, even if there is political disagreement on which policies should be applied.

⁵⁶ See, for example, Erce (2020) and Martin *et al.* (2021) Recommendation 5.

With a more ‘independent’ EFF it may be, but at least in Phase I it seems to be the best guarantee that transparency will prevail, which is needed for *common knowledge*.

A note on *DSA evolution*. Implicitly or explicitly, all sovereign DSAs provide estimates of the expected r - g and s paths, based on economic and forecasting models. Standard, and the more common, DSAs provide several scenarios for the official lender, or policymaker, to choose from – say, the most likely one, or to insure against the worst-case scenario, or, as often happens, the ‘politically preferred one.’ Stochastic DSAs (SDSAs) are more sophisticated in that they treat future r - g and s paths as realisations of a (Markovian) stochastic process. Therefore, they not only provide different scenarios, but also the transition probability among them (e.g. of returning to slow growth after a rapid recovery). The IMF has started using them. What is done in the design of an *optimal fund contract* (resulting in lessons II – X above) goes a step further: it provides risk-sharing across different scenarios, given their transition probabilities. For instance, given these transition probabilities, a country that is not hit by Covid-29 contributes to the fund even if it has no Covid-29 cases, in the same way car insurance covers accidents that hopefully do not happen to the premium-payer. A Fiscal Fund with these contracts will react immediately to Covid-29 if, and where, it happens.

Specific risk-sharing mechanisms: EUIS. SURE has been the first debt programme launched as part of the recovery plan and it had a very successful subscription.⁵⁷ An important feature is that it is specifically targeted to cover unemployment insurance (UI) expenses, i.e. the loan transfer is not fungible. The success of SURE can open the possibility of establishing a European Unemployment Insurance System (EUIS), either for severe shocks or for real business cycle (RBC) shocks. Labour markets across the EU are very heterogeneous, but a country-specific UI risk assessment can guarantee that there are no permanent transfers across participating countries (i.e. each country covers its expected benefits). Furthermore, there should not be moral hazard distortions if, as in SURE, EUIS benefits can only be used to complement national unemployment schemes. A well-designed EUIS with these features will generate stabilisation and risk-sharing benefits.⁵⁸ Note that, as with state-contingent debt contracts, EUIS would introduce an automatic EU stabiliser if a large number of countries participate.

The fiscal-monetary policy mix and other developments. With the development of a common EU/EA fiscal policy and a single EU Fiscal Authority, it is possible to start developing a more explicit *fiscal-monetary policy mix*, as previously discussed. For example, initiatives can be addressed which are difficult to address in the current multi-headed situation, such as Avgouleas and Micossi’s (2021) proposal of the ESM buying the EA sovereign debt purchased by the ECB in its asset purchase programmes (APP and PEPP) as a way to stabilise this debt on a more permanent basis. Following our characterisation of optimal fund contracts, this proposal, if taken on board,⁵⁹ can be improved by transforming sovereign debt into ESM state-contingent contracts.

Phase II should start when the EU/EA fiscal policy framework has advanced in the dimensions we have outlined (parallel development of the Financial Union, as briefly discussed, will also help) and the legal

⁵⁷ By 24 March 2021, the European Commission had issued €75.5 billion Social Bonds to finance the corresponding loans to 17 Member States, of the total €100 billion of the SURE instrument, which is underpinned by a gross national income (GNI) voluntary guarantee system (source EC).

⁵⁸ See, for example, Dullien et al. (2018), Dolls (2019) and Ábrahám et al. (2019 a). The latter also show that, in spite of the differences among euro area labour markets and current UI schemes, a EUIS (permanent version of SURE) provides significant risk-sharing benefits and, in addition, there can be almost unanimous agreement across Member States on having a common (replacement and duration) system, possibly complemented with additional national coverage, which will strengthen EU social cohesion and inclusiveness. In contrast, Ignaszak et al. (2020) show that if EUIS benefits are fungible within national budgets (i.e. they become transfers to the governments) then moral-hazard distortions can nullify the potential risk-sharing benefits.

⁵⁹ As already mentioned, the ESM faces the 500bn limit on lending and the leverage needed for the Avgouleas and Micossi’s proposal may not be feasible. Nevertheless, the proposal identifies the urgency of addressing the post-pandemic euro area debt problems and raises a question a single fiscal authority should confront: where should euro area national sovereign debt be allocated?

basis for the creation of a European Fiscal Fund (i.e. with the necessary Treaty changes) are in place. An important legal and political aspect is the governance and accountability of the EFF, an issue which we have, purposely, not discussed here.

3.2. The role and revision of the SGP fiscal rules

As we have seen, Phase I development of the EU Fiscal Fund can, and should, transform the EU surveillance system into *common knowledge of EU risks and opportunities*. It can also create incentives and provide instruments (EU automatic stabilisers) for member countries to increase their fiscal capacity, set debt targets and follow counter-cyclical stabilisation policies without the need for an annual 'European semester scrutiny' of their budgets with non-credible penalties for non-compliance. Does this mean there should be no fiscal rule to replace SGP after the General Escape Clause is deactivated?⁶⁰ Should the European Semester be eliminated? The answer to the latter is that it should be *reformulated*: it plays, and can play, an important surveillance and coordination role. In fact, this role will be strengthened if, in line with what we propose, there is no pretension that, based on the Semester conclusions, the Council of Ministers may impose sanctions. Regarding SGP, there is a rule implicit in our description of Phase I which is important to specify and make explicit:

*A. Member States must set a seven-year sovereign debt target consistent with EU consensual DSAs with a mid-point reassessment.*⁶¹

The role of EU budget revisions – say, in a new version of the European Semester – and recurrent DSAs would then be to check for deviations from the set target, with a more in-depth reassessment at the end of the third year. There is a need, however, to take into account unreasonable targets or important deviations from the path towards the target. There is an alternative to simple peer-pressure and non-credible sanctions:

B. Member States without an adequate seven-year target, or that are unlikely to reach the set target, will be offered the possibility of participating in a crisis-prevention programme.

A crisis-prevention programme is a fund contract, possibly in exchange for a fraction of the country's sovereign debt, designed either with a better target or a better path to reach the target.⁶² In the current framework, such a programme should be offered by the ESM.⁶³

Should there be, in addition, a 'nominal expenditure ceiling,' as for example proposed by the EFB and Martin *et al.* (2021, Recommendation 2)? It can complement A and B, but two issues arise: it is on the verge of violating the principle of fiscal policy ownership (Principle e) and raises the question of how to account for *exceptional* growth-enhancing government expenditure (Objective 6). Nevertheless, both issues can be accommodated within the fund design.⁶⁴

C. To prevent B, Member States will be encouraged to set a nominal expenditure ceiling on their fiscal programming over seven years consistent with A, and, if there are exceptional growth-

⁶⁰ As already said, we endorse proposals that recommend country-specific state-dependent deactivation (see Box 2 in the Annex).

⁶¹ For example, DSAs by the EU and/or the ESM and EFB and/or National IFI. Note that this rule coincides with Martin *et al.*'s (2021) 'Recommendation 1,' except with a longer horizon (theirs is five years) to make it longer than normal legislatures, strengthening the 'Member State commitment' to the rule beyond national political cycles, as with the EU MFF horizon.

⁶² This assumes, first, that with a crisis-prevention programme there exists a feasible DSA. Otherwise debt rescheduling will be needed. But in a Phase I environment this should only be an extremely rare event. Second, it assumes that the country will accept the programme offered. Again, this should be the case if in the common fiscal policy framework pursuing a non-consensual target, or a fiscal path that clearly deviates from the target, implies losing eligibility for other programmes (e.g. for crisis resolution).

⁶³ This will require to adapt or extend its current precautionary credit lines of Article 14 of its Revised Treaty.

⁶⁴ Note that in our framework, Martin *et al.*'s (2021) additional recommendations are basically taken into account (1, 3 & 4) or are minor (6) and, as we said, we take a different position on (5).

enhancing government expenditures, they will be offered the possibility of participating in a corresponding programme.

It is understood that not applying an expenditure ceiling will mean closer surveillance and that in the current framework the corresponding *growth-enhancing government expenditures*, if not already part of NGEU, will probably need to be supported by the EIB, and in any case will need to be monitored. In sum, in our view, in the *post-pandemic EU and EA fiscal framework*, the revised SGP should not be a central element of the common fiscal policy, but just part of an overall unique *fiscal stability and growth policy* with multiple instruments, based on *common knowledge* of Member States' DSAs, as reflected in A and briefly outlined here.⁶⁵

4. CONCLUSIONS

We have focused on six challenges that the EA, and the EU, will be facing in 'post-pandemic times.' On the one hand, these challenges show the need to further develop and complete the Fiscal Union. On the other hand, the EU and EA's unprecedented reaction to the Covid-19 crisis, with NGEU and related programmes of the ECB, ESM and EIB, has *de facto* changed the EU and EA fiscal framework, for example with an enlarged fiscal capacity of the EU ('a temporary EU Treasury'). Based on this fact and on new economic theory, we propose developing a unique and integrated – EU and EA – fiscal policy and, eventually, – with the necessary Treaty changes in place – setting up an efficient, permanent and independent *European Fiscal Fund* aimed at implementing this fiscal policy. Our proposal for a renewed 'Stability and Growth framework' also entails a revision of the SGP as an element of this broader policy framework.

⁶⁵ This is in line with the "shift from fiscal rules to fiscal standards" advocated by Blanchard et al. (2020).

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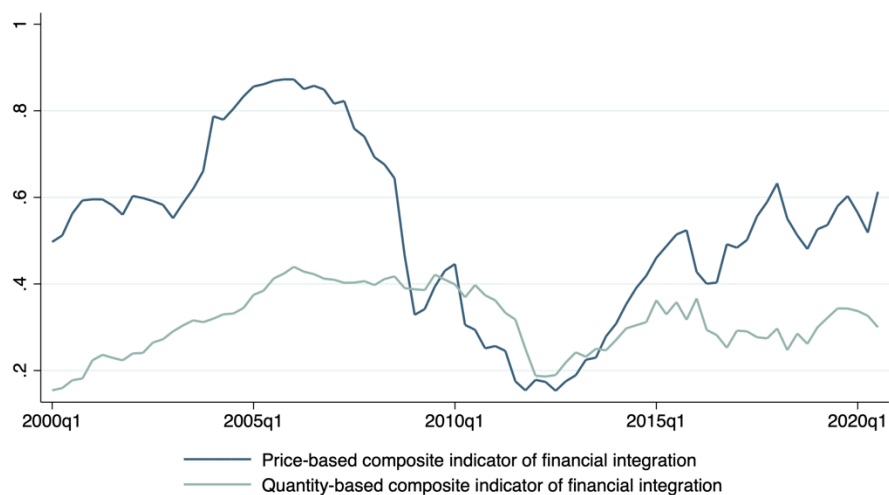
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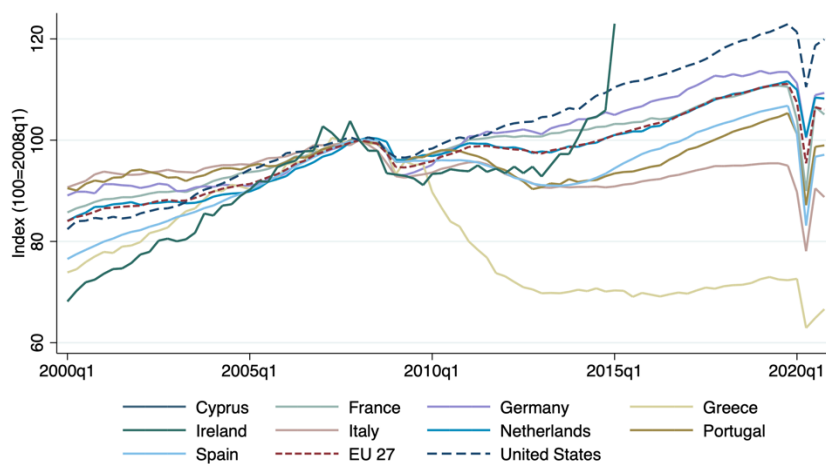
ANNEX

Figure A1: Financial integration in the euro area⁶⁶



Source: ECB Financial Integration and Financial Structures Report (Statistical Annex)

Figure A2: Evolution of real GDP in the EU and the United States

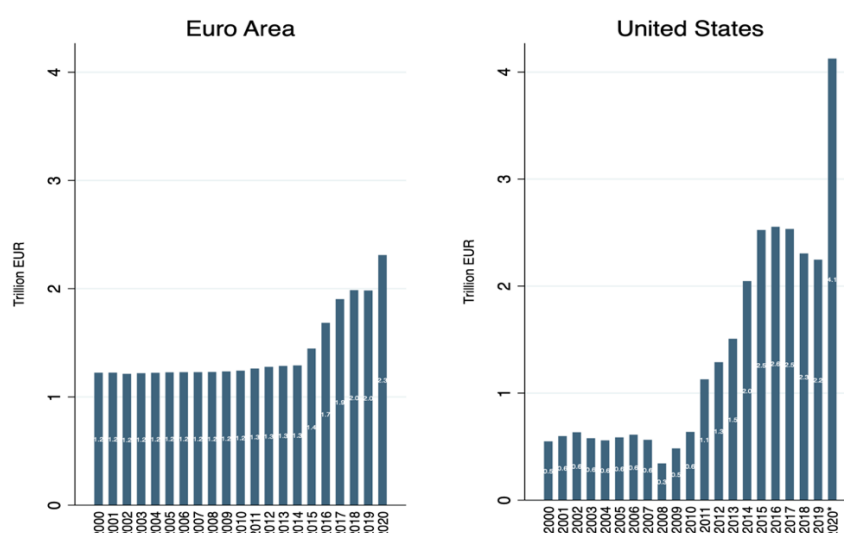


Note: The Y axis of the figure is truncated. Ireland reaches a value around 150 between 2016 and 2018 and finishes close to 180 at the end of the sample.

Source: OECD National Accounts Statistics

⁶⁶ We thank Carl-Wolfram Horn for suggesting this figure.

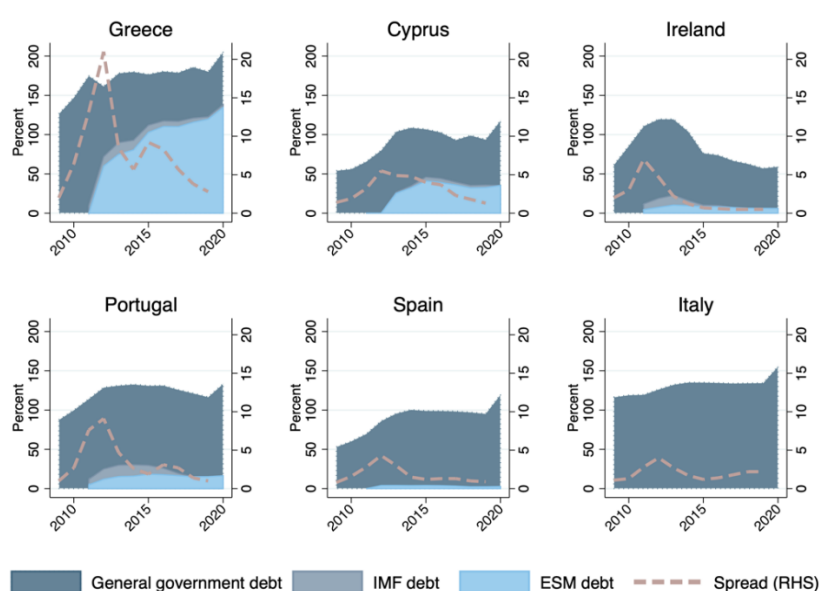
Figure A3: General government debt held by central banks



Note: The estimate for 2020 for the United States is still provisional

Source: ECB Statistical Data Warehouse and US Department of the Treasury

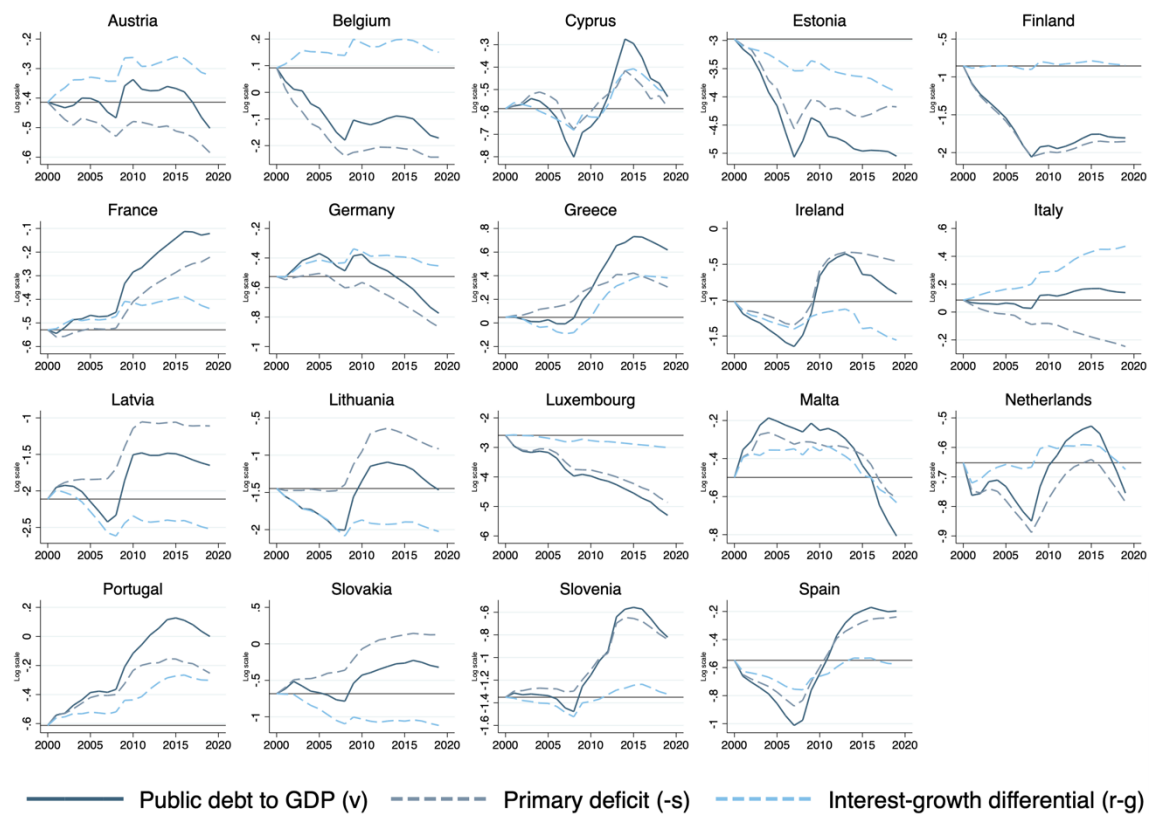
Figure A4: Composition of general government debt and spread



Note: The figure is inspired by Corsetti et al. (2020)

Source: AMECO, ESM Programme Database and IMF Treasurer's Department

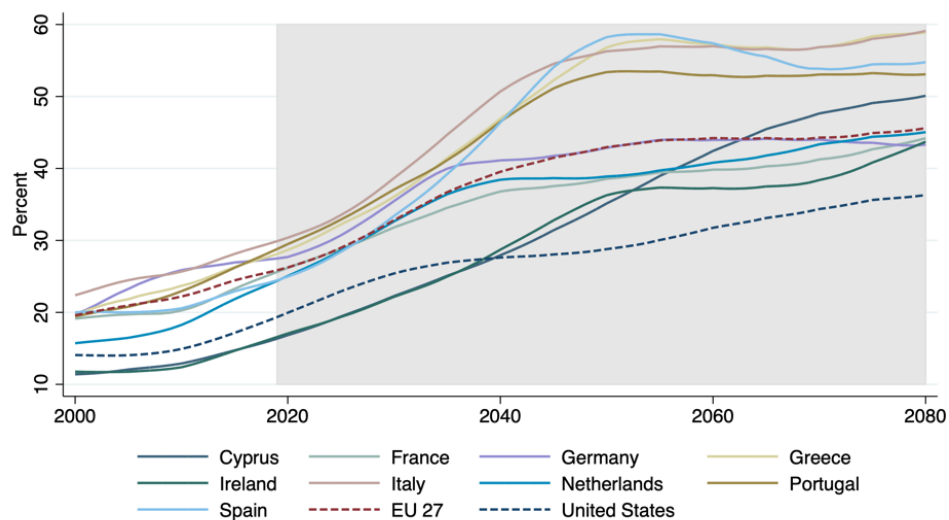
Figure A5: Decomposition of the value of public debt (all EA countries)



Note: Decomposition based on Cochrane (2020)

Source: AMECO and Eurostat

Figure A6: The old-age dependency ratio



Note: The old-age dependency ratio represents the share of people aged 65 and above relative to those aged 20 to 64. Forecast based on the medium fertility variant of 2019.

Source: UN World Population Prospects

Box 1: The European Financial Union

The European Financial Union currently rests on two pillars: the Banking Union (BU) and the Capital Markets Union (CMU). However, its design remains largely incomplete.

On the one hand, the European capital markets are highly fragmented, and it is still unclear which powers should remain in the hands of the Member States and which should go to the EU level. For instance, the insolvency regimes and some regulations of securities markets are not uniformly defined between Member States. This lack of homogeneity is problematic as some states are capable of attracting more investors than others. As a result, outside the main trading places, capital markets remain underdeveloped in the EU.

Both the Next CMU High-Level Group (2019) and the High Level Forum on the Capital Markets Union (2020) stress that supervision is one of the biggest obstacles to the CMU. On the one hand, some desire to give the ESMA the status of effective supranational market supervisor, while others prefer to maintain a strong national supervisory mechanism. As a result, there is limited consensus on the exact mandate of the ESMA and therefore on the exact range of action of the CMU.

On the other hand, the BU is not yet complete. First, its second pillar, the Single Resolution Mechanism (SRM), is not working properly. As Garicano (2020) notes, the Single Resolution Board (SRB) is “in office but not in power” as medium-sized banks are considered too “small” to be accounted for while big banks are too “big” to be resolved with the resources available. In addition, as Dewatripont *et al.* (2021) note, the 8% bail in rule of the Single Resolution Fund (SRF) – which is stricter than the one recommended by the Financial Stability Board – has never been put into effect so far. Second, the BU is still lacking its third pillar: the European deposit insurance scheme (EDIS). The Great Financial Crisis showed the importance of this scheme. However, the exact architecture and implementation of the EDIS remain to be agreed.

Most of the existing proposals to reinforce the BU stress the importance of making the existing resolution mechanism credible and urge for implementation without delay of some form of deposit insurance at the EU level. These issues are pressing as banks might soon encounter a wave of non-performing loans due to the Covid-19 pandemic (Kasinger *et al.*, 2021).

Box 2: Alternatives to SGP

In the last few years, the public debt-to-GDP ratio has reached historic levels in the world. The EU is no exception to this. The average indebtedness of EU Member States amounted to 79% of GDP in 2019, whereas it reached 66% in 2000. Some countries such as Italy, Portugal and Spain already expected to reach a debt-to-GDP ratio above 120% by 2021, while Greece should end up with a figure around 200%.

In terms of government primary surplus, the EU average settled at -0.5% of GDP in 2019. However, the EC forecast (May 2021) that this figure would reach -7.5% in 2021, with most of the Member States running a deficit above 3% of GDP.

In the light of these statistics, it is clear that the economic environment has drastically changed since the adoption of the Maastricht Treaty in 1992. A debt-to-GDP ratio of 60% and an annual deficit of 3% seem to no longer correspond with the fiscal reality of most Member States.⁶⁷

In March 2020, the European Council acknowledged the impossibility of satisfying the set of rules established in the SGP when dealing with the Covid-19 pandemic. It therefore for the first time activated the General Escape Clause (GEC), allowing member countries to undertake emergency measures.

As noted by Thygesen *et al.* (2020), while the Council Regulation lays down the conditions to activate the GEC, little is said about its actual deactivation. Therefore, some propose a lifting of the GEC – with the introduction

⁶⁷ See Bilbiie *et al.* (2021) for an overview of the debates around the Maastricht Treaty.

of transitional arrangements – relatively quickly so as not to put in jeopardy the medium-term financial sustainability of the Member States (Gern et al., 2020; Jones, 2020). Others consider that the deactivation of the GEC should be state-dependent and not time-dependent (Lambertini, 2020; Martin & Ragot, 2021). That is, the lifting of the GEC should become effective once the EU has returned to its pre-crisis level (i.e. end of 2019) in terms of some specific economic indicators.

The suspension of the SGP re-launched discussions on reforming the way public finances and coordinated fiscal policies should be conceived in the EU. We list below some of the most prominent proposals.

Currently there are two types of proposals. The first type aims to modify the current EU fiscal architecture with new fiscal rules. The main idea is to come up with a more transparent and counter-cyclical fiscal framework than the existing one. Bénassy-Quéré *et al.* (2018), Darvas *et al.* (2018), Thygesen *et al.* (2020) and Martin *et al.* (2021) suggest an approach with three main points, although each proposal has its own particularities. First, there should be a single fiscal anchor expressed as a debt-to-GDP ratio objective. Second, there should be a single operational rule which would cap the growth rate of public expenditure.⁶⁸ Finally, there should be an escape clause based on country-specific assessments.

The public expenditure ceiling is said to be more suitable than the existing fiscal rules for three reasons (Bénassy-Quéré *et al.*, 2018). First, public expenditure is directly observable, unlike cyclically adjusted deficit, and easily understandable by the general public. Second, the proposed rule is more counter-cyclical as it only implicates the level of public expenditure and disregards the evolution of public revenue. Finally, it is much simpler than the existing framework as it solely involves a spending cap and a debt target rather than a superposition of a debt target and nominal and cyclically-adjusted deficit (i.e. revenue minus spending) targets.

Each of the aforementioned proposals considers that the debt target should account for country-specific factors. Most notably, implicit liabilities such as the pay-as-you-go system and public investment should be taken into account. As Martin *et al.* (2021) point out, country-specific debt sustainability analyses will play an important role in this regard.

The second type of proposal does not believe that new fiscal rules are the solution to the shortcomings in the existing EU fiscal architecture. Instead, it suggests a change of paradigm by shifting the fiscal framework from rules to standards. That is, the Member States' fiscal stances should be assessed qualitatively with an ex-post adjudication mechanism rather than quantitatively by means of strict numerical ceilings and thresholds. More precisely, Blanchard *et al.* (2020), who are the source of this proposal, would like to replace the existing numerical rules with the principle that "a Member State's deficit is not excessive when a rigorous debt sustainability analysis indicates that its debt is sustainable with high probability."

Besides this, Blanchard *et al.* (2020) propose using reform of the SGP to incentivise Member States to invest more. Most notably, they suggest introducing capital budgeting to distinguish between current and capital expenditures. This change would promote public investment, which has been on a downward trend over the last decade in the EU.⁶⁹

Note that the none of the above proposals come up with a way to credibly enforce the new SGP. This dimension is, however, crucial as the existing system of penalties has failed to discipline Member States with excessive deficits.

⁶⁸ Feld et al. (2018) also propose a reform of the SGP through the introduction of a public expenditure ceiling with the addition of a structural balanced budget rule to comply with the Fiscal Compact.

⁶⁹ A similar proposal comes from Bofinger (2020), who suggests the introduction of a golden rule which would deduct public investment from deficit calculations.

The main legacy of the post-Covid-19-crisis euro area fiscal framework should be the development of a unique integrated fiscal policy and of a permanent and independent Fiscal Fund to implement it. To arrive at this conclusion, we analyse the challenges and build on current research on the optimal design of a fiscal fund. We characterise the fiscal policy, and the development of the Fund, together with the role and form that the Stability and Growth Pact can take in the new fiscal framework.

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