

# Should the Eurozone rely on the US?

by [Christophe Blot](#), Caroline Bozou and [Jérôme Creel](#)

The Covid-19 pandemic has led governments and central banks around the world to implement expansionary fiscal and monetary policies. The United States stands out for its substantial fiscal support, which is much greater than that in the euro area. In a recent paper prepared for the [Monetary Dialogue between the European Parliament and the European Central Bank](#), we review these measures and discuss their international implications. Given the size of the US stimulus packages and the weight of its economy, we can indeed expect significant spillover effects on the euro area. However, the impact will depend not only on the orientation of economic policy but also on the precise nature of the measures adopted (transfers, spending and the articulation between monetary and fiscal policy).

Expansionary monetary policy is generally perceived as a policy based on self-interest, since a fall in the US interest rate should lead to a depreciation of the US dollar that is unfavourable to America's trading partners. However, the literature shows that the exchange rate

channel can be dominated by a financial channel and by increased demand from the US economy, both of which generate positive spillovers (see [Degasperi, Hong and Ricco, 2021](#)).

The international spillover from US fiscal policy should also be positive, once again *via* demand effects, and also due to an expected appreciation of the dollar (see [Ferrara, Metelli, Natoli and Siena, 2020](#)) as well as from expectations of a return to balanced public finances à la [Corsetti, Meier and Müller \(2010\)](#).

The favourable impact on the rest of the world might also be attenuated if the US fiscal expansion were to lead to a rise in the global interest rate. Ultimately, the magnitude of the international spillover effects of US fiscal policy will depend on the response of the exchange rate and the interest rate. [Faccini, Mumtaz and Surico \(2016\)](#) confirm the importance of financial effects but nevertheless show that the real interest rate could fall after a US expansionary shock.

In this paper, simulations conducted using a macroeconomic model and empirical analysis confirm the positive effects of US expansionary monetary policy on euro area GDP. There is, however, uncertainty about the timing and duration of these positive effects.

As regards fiscal policy, empirical analysis suggests that the spillover from the US measures implemented since the outbreak of the Covid-19 crisis will be positive, at least in the short term (in the first two years). Given the size of the fiscal impulse, the

impact would not be negligible.

The global spillover from US macroeconomic policies is therefore expected to be positive, but there is some uncertainty beyond 2022.

However, it should be borne in mind that the euro area's growth will depend primarily on the path taken by its own policy mix. The euro area should not therefore rely only on US policy to consolidate and accelerate its recovery. The contrasting fiscal impulses in 2020 and 2021 between the US and the euro area already indicate a risk of increasing divergence between the two regions.

We also briefly discuss that the main repercussions from the US may come not from macroeconomic policies but from financial risks. Asset prices have risen sharply in 2020, sparking fears of a financial bubble, at least in the US. This risk could have a significant impact on the euro area in the medium to long term.

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**Environmental health policy:  
A priority for a global**

# health renaissance

by [Éloi Laurent](#), Fabio Battaglia, Alessandro Galli, Giorgia Dalla

Libera Marchiori, Raluca Munteanu

On 21 May, the Italian Presidency of the G20 together with the European Commission will co-host the World Health Summit in Rome. A few days later, the World Health Organisation will hold its annual meeting in Geneva. Both events will obviously focus on the Covid tragedy and on reforms that could prevent similar disasters in the future. “The world needs a new beginning in health policy. And our health renaissance starts in Rome,” said European Commission President Ursula von der Leyen on 6 May. We share this hope and want to see it succeed.

As members of civil society, we have been called upon to contribute to the collective discussion that will lead to the drafting of the “Rome Declaration”. Based on a [report we are releasing today as part of the Well-being Economy Alliance](#) (WeALL), we believe that the notion of an environmental health policy should be at the heart of the Rome Declaration and, beyond that, it should inspire the overhaul of health policy at all levels of government. In essence, we are calling on the delegates at these two crucial

summits to recognise the fruitful interdependencies between the environment, health and the economy.

The key principle is to make the link between health and the environment the core of global health and move from a cost-benefit logic to co-benefit policies. Our inability to respond effectively to the twin crises hitting health and the environment stems in large part from our perception of the costs that resolute action would have for the "economy". But we are the economy, and the economy forms only part of the true source of our prosperity, which is social cooperation. The health-environment transition does of course have an economic cost, but it is clearly lower than the cost of *not* making the transition. The limits of the monetarisation of life are becoming more and more apparent, and every day it is becoming clearer that the supposed trade-offs between health, the environment and the economy are wrong-headed and counter-productive. Conversely, the gains in terms of health, jobs, social cohesion and justice from co-benefit policies are considerable. Health systems are the strategic institutions in this reform, so long as much greater emphasis is placed on prevention, but other areas of the transition are also involved: food production and consumption, energy systems, social policy (particularly the fight against inequality and social isolation) and educational policy.

To take simply the example of energy, it is abundantly clear that today's global energy system, based 80% on fossil fuels, makes no sense from the point of view of humanity's well-being, as it is simultaneously destroying current and future health. Air pollution resulting from the use of fossil fuels is playing a grave role in the health vulnerability of Europeans facing Covid-19 (responsible for 17% of deaths according to [some estimates](#)); yet reducing air pollution in Europe's cities would bring a key health co-benefit: it would reduce the risk both of co-morbidity in the face of future environmental shocks such as respiratory diseases but also of heatwaves, which are becoming increasingly frequent and intense on the continent. When all the co-benefits are taken into account, first and foremost the reduction of morbidity and mortality linked to air pollution (which, according to recent studies, are much higher than previous estimates, with [100,000 premature deaths in France](#) each year), the switch to renewable energies would lead to savings of around fifteen times the cost of their implementation.

Beyond these areas we have identified, there are many others where health, the environment and the economy are mutually reinforcing. Together they form a foundation on which to erect policies that aim for the full health of a living planet. As the Rome Summit and the WHO Assembly approach, we therefore want to challenge the participants with two

simple questions: What if the best economic policy were a genuine health policy? What if the best health policy were a genuine environmental policy? As the countries of Europe know very well, crises are the cradle of new worldviews, the catalysts of new approaches that can gain traction. Rome was not built in a day, but the co-benefit approach can light the way to a renaissance in health.

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## The “modern theory of money” – is it useful?

by [Xavier Ragot](#)

A heated debate is currently taking place in macroeconomics. The change in US economic policy following the election of Joe Biden has sparked debate over what to expect from “Bidenomics”. The debate has seen radical Keynesian proposals being promoted by the “modern theory of money” (MMT). This movement advocates massive stimulus packages and the monetization of public debt. This post discusses the MMT proposals through a review of two recent books that have recently appeared in French: **Stephanie Kelton, *The deficit myth*** (John Murray, 2020) and **Pavlina Tcherneva, *The case for a job guarantee*** (Polity, 2020).

Before criticizing MMT, we should briefly summarize its proposals: the first key idea is the promotion of monetary policy in the service of fiscal policy. MMT supports the systematic purchase of public debt by central banks, the so-called *fiscal dominance* of monetary policy, in order to allow for an increase in public spending. For economists, fiscal dominance is opposed to *monetary dominance*, which defends the idea that the primary role of monetary policy should be to control inflation and leave the financing of public expenditure and debt to taxation.

The second proposal is the promotion of the state as the employer of last resort. The state should be in charge of providing jobs that are useful to the public to all unemployed people, i.e. a public employment service to avoid falling into poverty.

The rather benign criticism of the modern theory of money offered here can be summarized as follows: it is difficult to see anything really new. MMT is not really a theory of money, nor is it modern, though it does stimulate debate!

### ***Should public debts be financed by money?***

First of all, let's not deny ourselves the pleasure of acknowledging that Stephanie Kelton's book is a good mainstream economics book, and a lively and controversial introduction to macroeconomics. The book is of course not perfect, but prior to any criticism, let's first note that it



is a pleasure to read. Stephanie Kelton's thesis is that money creation is carried out on behalf of states, for countries such as the United States or Great Britain that do not belong to monetary unions. In these countries, the state can ask the central bank to buy up as much public debt as it wants by creating money: it is the state that sets the statutes of its national central bank.

This monetary sovereignty allows the state to finance policies, with the only constraint being inflation. For MMT, monetary policy should serve fiscal policy, which should manage inflationary risks by stabilizing aggregate demand.

This approach is interesting because it evokes certain economic truths, or simply accounting truths. Let's consider a couple of these before offering some criticism.

The first is that public debt is held by someone: a state's debt is someone else's wealth. Consequently, it makes no sense to write that "we" are indebted because the state is indebted. On the contrary, we are enriched by the public debt we hold on the state. The impact on our wealth depends not on the debt itself, but on how the financing of the debt interest is distributed. This way of thinking leads to restoring the accounts of agents.

When the state issues debt, other actors hold it, and will receive the interest on the debt and the eventual repayment of the principal. Public debt therefore contributes to the formation of other actors' wealth.

The value of Stephanie Kelton's book is that it presents these accounting relationships in a lively and polemical manner, directly attacking politicians in the US who do not understand these macroeconomic realities. Indeed, it should not be assumed that there is a broad understanding of these macroeconomic features. In France, there are still people who believe that the public debt represents "indebtedness to future generations", which makes little sense, as has been discussed [elsewhere](#). Stephanie Kelton's fight on behalf of macroeconomics is therefore salutary, and much remains to be done.

The second accounting truth is more interesting for the public debate. In our economies, central banks belong to states that have a monopoly on issuing central bank money, such as the banknotes, coins and currency held by banks. By force of law, this money cannot be withheld from transactions. The existence of cryptocurrencies will not significantly challenge this monopoly in the near future. Furthermore, we can expect a vigorous response from the states aimed at ensuring their central bank's control over the issuance of money. This public monopoly holds in the euro area as well, even though the European Central Bank "belongs" to different states. However, overall money creation is for the benefit of the states. So how does a macroeconomist think about all this? At an abstract level, the state

can finance itself either by issuing public debt or by issuing money. The latter possibility is called “seigniorage” in the economic literature, because it stems from the monetary sovereign’s monopoly on issuance. This general view is taken for granted in monetary economics. For example, the standard textbook on monetary economics devotes an entire chapter to it (see chapter 4 in Carl Walsh, *Monetary Theory and Policy*, MIT Press). The fact that government debt is held by non-residents does not change the logic, as they are paid in the national currency. As long as inflation is low and not very volatile (and that is the point!), the national currency is accepted in the exchange. The problem with monetary financing is that it can create destabilizing effects and generate inflation, which reduces household purchasing power, with complex effects on [inequality](#). Predictable inflation is nowadays said to be a public good, because it allows people to avoid unpredictable fluctuations in their income.

So there are really no new theories in MMT. In my opinion, the importance of this “theory” is rather different, and does not involve convincing the macroeconomist or the monetary theorist. The point is to promote an alternative economic policy, stimulating activity through higher public debt and the eventual monetization of public debt, while accepting a higher inflationary risk. The book defends the historic post-

WW2 economic orientation, so-called traditional Keynesian policy, which involved drawing on fiscal tools to achieve full employment, even if this leads to moderate inflation. In doing this Stephanie Kelton rehabilitates Abba Lerner who, from the 1940s onwards, promoted policies that would later be described as Keynesian, and which he called *functional finance*. Abba Lerner emphasized that his contribution was to show the coherence of Keynesian thought: the aim of economic policy is full employment, the means are public debt and money creation, and, because of the possibility of issuing money, the risk is inflation and not the unsustainability of public debts. In 1943, he presented his conception in [fourteen](#) pages written in a very accessible form. The history of inflation in the 1970s showed that the use of these policies to revive economies with production constraints (linked to oil at the time) could lead to high and volatile inflation. Clearly identifying a demand shock is necessary to control inflation.

Again, there is nothing radically new here in the United States, where the central bank's mandate is to ensure low inflation and maximum employment. It is in the euro area that this statement implies a profound change, as the ECB's sole mandate is price stability, not economic activity. Making changes to the ECB's mandate is an old topic that is mentioned

in passing, and dealt with at greater length [here](#) in the wake of the 2008 financial crisis.

Let us turn now to a critique of the book. The limit on debt monetization or monetary financing of public expenditure is inflation, as the author reminds us. However, nothing precise is said about the link between economic policy and inflation. Yet this link is essential to properly calibrate the amount and the format of the stimulus package in the US, and which we need to develop in Europe. The ECB [holds around](#) 23% of France's public debt. How far can we go? What are the economic and social costs of higher inflation? How can we ensure that inflation expectations do not rise dangerously?

This subject has been studied extensively from various angles: the relationship between economic activity and inflation, the famous Phillips curve, for example, covered in a [recent article](#) here. The relationship between the quantity of money and inflation has also been analysed extensively, for [example here](#). To understand the effects of inflation, it is necessary to study in detail who holds money and why, which [we do here](#).

The work of Stephanie Kelton and the MMT economists carefully avoids citing the work of other approaches in order to foster the appearance of a new school of economic thought. At this point, however, that is not the case. Stephanie Kelton's book is a good introduction for those who want to learn about the macroeconomic policy debate through topical issues from a

polemical angle. But MMT has to be criticized for its relative macroeconomic naivety and empirical weakness.

The second revendication of the MMT authors is the promotion of a job guarantee for all employees. This second aspect is independent of the macroeconomic management of aggregate demand and the financing of the public deficit. It concerns the residual part of underemployment that exists in the business cycle. The proposal set forth by Pvalina Tcherneva is simple: it consists of proposing an additional tool, an offer of public jobs paid at least at the minimum wage (which Pvalina Tcherneva wants to increase to \$15 for the United States). These jobs would not be compulsory, but would constitute a universal right for the whole population. They would be linked to training, accreditations and apprenticeships, with the goal being that when those employed in these jobs leave they should be suited to find a job in the private sector. According to the author, these jobs are not intended to compete either with public employment with identified objectives or with private employment, which responds to a solvent demand.

The French reader will find these jobs familiar: they could be subsidized jobs in the non-market sector, which we know can boost the returns on employment, when the qualification achieved is effective, as is shown in [evaluations](#). The proposal is to make the number of

such jobs  
endogenous through the demand of workers over the cycle. While  
a deep-going reform  
of the training and apprenticeship system is necessary, the  
proposal of a  
counter-cyclical use of this type of job is interesting and  
already in partial  
use.

Paradoxically, perhaps, the interest is in thinking  
not an opposition to the market economy, but a policy of  
stabilization, which  
gives rise to [radical](#) criticism of MMT! The cyclical  
employment deficit  
is compensated for either by vigorous and potentially  
inflationary management  
of aggregate demand or by a policy of generating public jobs.  
These Keynesian  
policies are developed within the so-called [post-Keynesian](#)  
approach, which is one of 50 shades of Keynesianism  
(neo-Keynesian, historical Keynesian, post-Keynesian,  
circuitist, etc.).

### ***MMT, post-Keynesianism, and Joe Biden's new economic policy***

We are witnessing a profound change in US economic  
policy with plans for investment stimulus packages, higher  
taxes on  
corporations and wealthier households, and a plan to increase  
the federal  
minimum wage, all with an accommodating central bank that  
seems to have little  
concern about short-term inflationary pressures. These  
developments are in line  
with the MMT recommendations (without taking up all the  
recommendations). One legitimate  
question is to identify the role of this school of thought in

these developments. This can only be answered imperfectly, as the mysteries of economic policy are so obscure, sometimes for the decision-makers themselves. The MMT proposals were first taken up by Bernie Sanders, who leads the left wing of the Democratic Party and whose economic adviser for the 2016 campaign was Stephanie Kelton. As a result, the proposals have become part of the American economic debate.

However, one can trace a completely different intellectual genealogy of the change in US economic policy, from either the neo-Keynesian or Keynesian stream, and this seems to me to be more realistic.

The work of Paul [Krugman](#) on the liquidity trap in Japan, of Lawrence [Summers](#) on secular stagnation, and of Olivier [Blanchard](#) on the role of multipliers (among many others) have for several years now led to developments within the IMF and the OECD in a much more Keynesian direction. These developments are independent of MMT, which presents fewer empirical proposals than some of the work cited here. Thus, Biden's economic turn seems to me to be much more imbued with the pragmatic experience of the real world than with a new "alternative" body of theory. What is described as pragmatism is in fact above all an empirical approach to economic mechanisms, in a context of low interest rates that give [states](#) a [new capacity for debt](#).

***European lessons?***



To conclude, what are the lessons for Europe of MMT (and the Keynesian turn in US policy)? The expansionary use of fiscal policy and the monetary financing of public deficits can of course take place only at the level of the euro area, as it is the central banks of the Eurosystem that have the monopoly on issuing money. The problem therefore is not so much economic as political. The different economic situations in the euro area are giving rise to different requirements for a recovery. Germany's economy is stimulated by strong external demand due to a favourable internal exchange rate. Germany's public debt is expected to be around 65% in the coming quarters. The Italian economy is experiencing weak growth and a public debt of 160%. More than any theoretical debate, it is this economic and political divergence that is paralysing Europe. The judicious use of European recovery packages can bring about re-convergence and job creation, but that is another matter.

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# **Climate: The urgency of justice**

By [Éloi Laurent](#) and [Paul Malliet](#)

On the eve of the climate summit organized by the

**Biden administration on 22 and 23 April, which will be attended by 40 heads of state and government, we offer here some initial reflections on a critical issue facing international climate negotiations: how should the effort to reduce emissions be shared between countries within the framework of the United Nations?**

The news on the climate emergency front at the start of 2021 is mixed, which might not be so bad: the new US administration's willingness to assume leadership on the climate agenda, within a multilateral framework, contrasts with the obscurantist obstructionism of the previous administration. Furthermore, 110 countries have announced their commitment to achieving carbon neutrality by 2050, with China sharing this goal, but by 2060<sup>[1]</sup>.

But in order to close the gap between the speed being attained by natural energy systems and the inertia inherent in today's economic and political systems, these encouraging geopolitical dynamics must pick up the pace. In this respect, one key indicator is the gap between the status quo of current policies ("business as usual") and the full implementation of the commitments made in the wake of the Paris Agreement: if all the commitments currently formulated and described in the States' respective national contributions were really met, we would be heading

towards 2.6° of warming by the end of the century; if everything continues as it is today, we are heading towards 2.9° of warming. As it stands today, the Paris Agreement (which has led to undeniable progress) is therefore worth only 0.3 degrees, or about a decade and a half of warming at the annual rate observed since 1981[3].

A new global climate strategy must therefore be developed and implemented, and it needs to bear fruit starting from the COP-26 meeting next November in Glasgow. The Biden administration is organizing a summit on 22 and 23 April, which will be attended by 40 heads of State and government. In line with the [American Jobs Plan](#), the [agenda for this meeting](#) emphasizes the economic gains expected from decisive climate action. But it fails to address the need for coordination: how should national efforts at emissions reduction be shared among the world's countries? On the basis of what criteria? In other words, how can we map out the path towards the orientation indicated by the Paris Agreement?

We are proposing here an embryonic reflection (which we will elaborate on in the run-up to COP-26) on the question which, in our view, is now the *raison d'être* of international climate negotiations: how to share the effort to reduce emissions between countries within the framework of the United Nations?

In the light of the IPCC's Special Report on 1.5° published in 2018, we determine a global carbon budget, which

in 2019 amounted to 945 GtCO<sub>2</sub>e; this corresponds to an intermediate target between the 1.5° and 2° budget associated with the 67th percentile of the Transient Climate Response to Emissions (TCRE), [\[4\]](#) in line with the goals set in Article 2 of the Paris Agreement.

The question of the fair distribution of this global carbon budget has been the subject of numerous studies (for a summary and proposals, see for example [Bourban, 2021](#)), but there is currently no work that integrates a complete vision of the three justice criteria identified in the academic literature – [equity, responsibility and capacity](#) – in order to determine an operational distribution of national efforts to avoid the climate catastrophe.

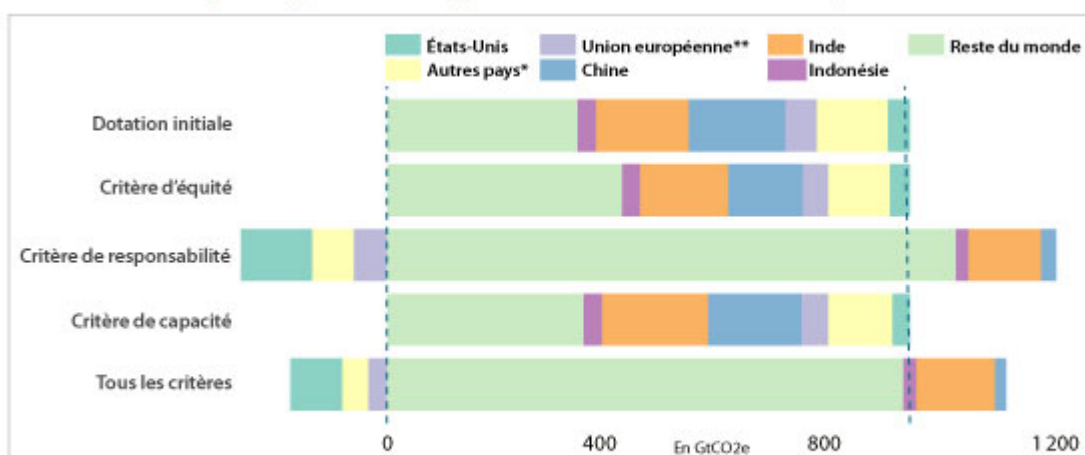
With this in mind, we focus our analysis on the top 20 emitting countries, [\[5\]](#) which accounted for 77% of emissions in 2019. We assume that the emissions reduction target will be shared by all countries by 2050 and that the carbon budget therefore covers the next 30 years, which translates into an average annual budget of around 30 GtCO<sub>2</sub>e (for comparison, 36 GtCO<sub>2</sub>e were emitted in 2019). We take as a starting point an equal distribution among all members of humanity in 2019, meaning an initial allocation of 122.5 tCO<sub>2</sub>e up to 2050, i.e. about 4 tCO<sub>2</sub>e per year (a country's budget being the aggregation of the individual allocations of its total population).

We interpret the equity criterion as meaning equal access of the world's citizens to the greenhouse gas (GHG) storage capacity of the atmosphere (this corresponds to a universal carbon endowment corrected for each major emitter for its population and for population growth by 2050).

Our responsibility criterion is the amount of GHGs already emitted since 1990 in consumption, thus combining a spatial justice criterion with a temporal criterion, reflecting the global as well as the historical responsibility of individual countries.

Finally, the capacity criterion is expressed here by the United Nations Human Development Index (HDI), which by construction ranges from 0 to 1, and which we relate for each country to the world average (which in 2019 was 0.737). Thus, countries whose HDI is lower than this world average would see their budget increase in proportion to their human underdevelopment, and vice versa for developed countries, i.e. they would see their budget decrease in the opposite direction (Figure 1).

Figure 1. Répartition du budget carbone mondial selon 3 critères de justice



\* Canada, Arabie Saoudite, Australie, Japon, Royaume-Uni, Corée du Sud, Afrique du Sud, Iran, Mexique, Turquie, Brésil.

\*\* Comprend les 27 États-membres.

Sources : Global Carbon Budget 2020, World UN Population, calcul des auteurs.

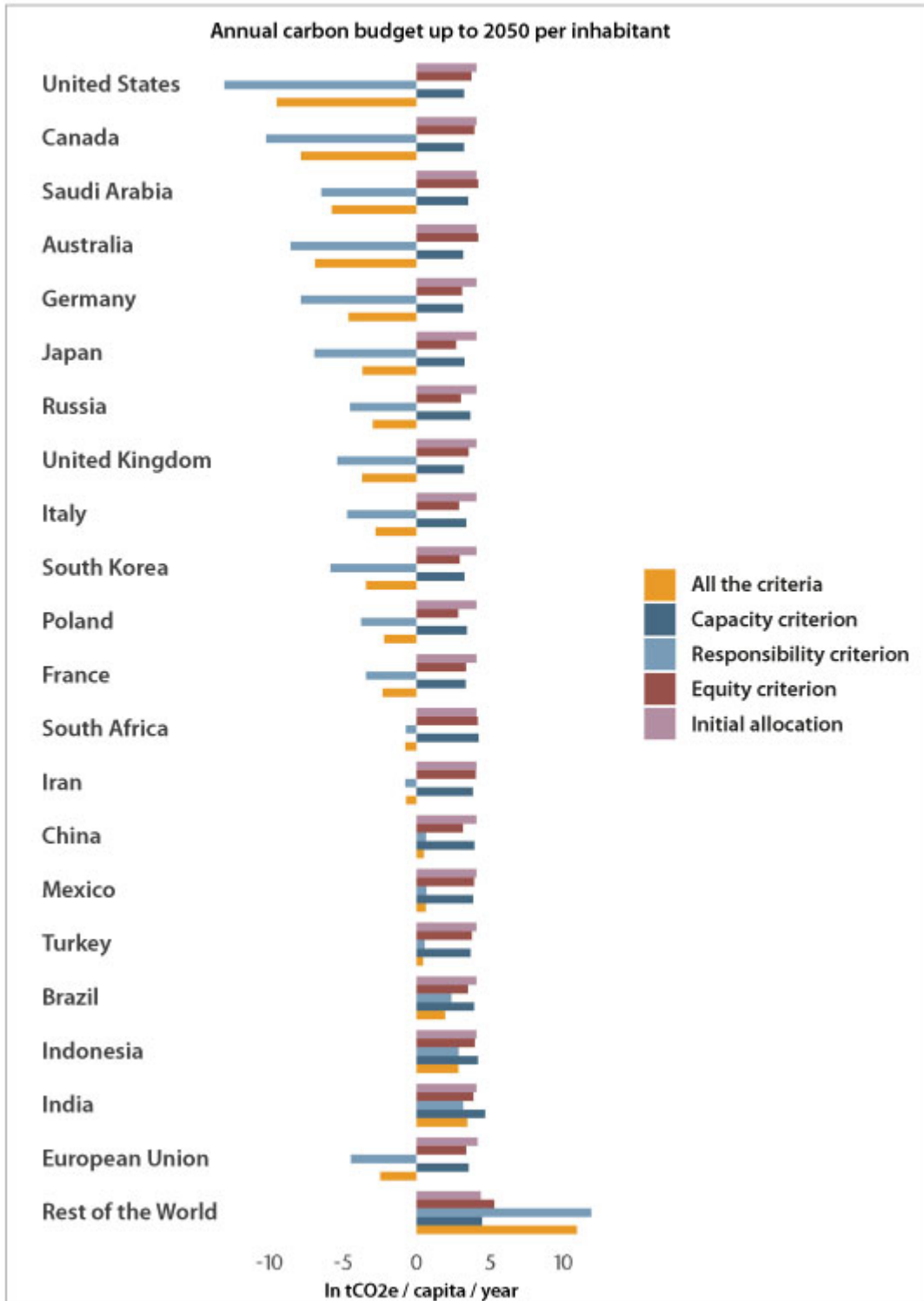
The equity criterion generally operates a

reallocation from countries with a falling population to those with a rising population, which are almost entirely located in sub-Saharan Africa. In this respect, based on this criterion China undergoes a reduction in its budget of 44 GtCO<sub>2</sub>e (almost 25%), while the rest of the world benefits from an increase of 86 GtCO<sub>2</sub>e.

The responsibility criterion appears to be the main determinant leading to a reallocation of the global budget between countries, with a transfer of nearly 263 GtCO<sub>2</sub>e from the OECD countries to the so-called developing countries. The capacity criterion also leads to a reallocation towards developing countries, but much less (almost 34 GtCO<sub>2</sub>e in total) [\[6\]](#).

Thus each criterion plays out differently (either by the nature of the rebalancing or by its extent), suggesting that the interplay of this relatively simple set of three criteria does indeed enable different understandings or conceptions of climate justice to be translated into a distribution of the burden of the mitigation effort (Figure 2).

Figure 2. Distribution of the global carbon budget according to the 3 justice criteria for the 20 top emitters and the rest of the world



Sources: Global Carbon Budget 2020, World UN Population, authors' calculations.

Note: Each bar indicates the effect of each criterion, taken independently of the others, on the average annual carbon budget per country. For example, while each American citizen has an initial allocation of 4 tCO<sub>2</sub>e, the equity criterion leads to this budget being reduced to 3.73 tCO<sub>2</sub>e, the application of the responsibility principle leads to the initial allocation turning negative and corresponding to a debt of 13 tCO<sub>2</sub>e, and the capacity criterion reduces the initial allocation to 3.25 tCO<sub>2</sub>e. The aggregation of these different criteria results in a total negative budget of 9.5 tCO<sub>2</sub>e per capita per year.

However, this representation does not tell us anything about the future emissions trajectories of the different countries, the instruments that will be implemented and the justice criteria specific to each country that will govern the deployment of these instruments. In a second stage of our analysis, we will propose possible distributions of the budget globally determined for France in order to appreciate the issues of climate justice, moving from the global to the national and finally to the individual. In any case, this first step informs us about what could be a fair distribution capable of more explicitly capturing the guiding principle of the international community since the Rio summit in 1992 of “shared but differentiated responsibility”.

In the light of this initial analysis, one point seems perfectly clear: if the new US administration does indeed intend to reassume global climate leadership, in association with the European Union, it will have no choice but to face the existence of a climate debt to the rest of the world. Given its level, it is illusory to believe that this can be offset by hypothetical negative emissions, and should therefore be subject to one form or another of compensation<sup>[8]</sup>. This could for example mean much more significant amounts than those currently paid into the Green Climate Fund, which is still largely underfunded in relation to the initial stated ambition



of reaching a budget of \$100 billion in 2020.

A second point is that China can no longer claim to be a major emerging country in the climate negotiations, with an exploding emissions trajectory that is supposedly part of its right to development and economic growth. In 2020, and taking into account all the criteria adopted, its carbon budget, at 21 Gt, would be close to that of Indonesia, which has one-fifth of China's population.

It seems that the Biden administration wants to mark Earth Day on 22 April with two announcements: one concerning new 2030 climate ambitions for the United States and the other concerning further emissions reductions by the invited heads of State and government. These announcements will be fully credible only if the US manages to reconcile its national ambition with its global responsibility, and thereby convince China to do the same.

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[1] This represents about 50% of the population as well as global GHG emissions.

[2] Climate Action Tracker, December 2020 projection <https://climateactiontracker.org/publications/global-update-paris-agreement-turning-point/>

[3] Source: [NOOA](#).

[4] The TCRE translates the average variation of

average temperature with the stock of carbon in the atmosphere with an associated probability. In our analysis this translates into the following:

There is a 67% chance that the carbon budget in question will lead to a temperature rise limited to 1.75°.

[5] The top 20 emitting countries in 2019 were: the United States, Canada, Saudi Arabia, Australia, Germany, Japan, Russia, the United Kingdom, Italy, South Korea, Poland, France, South Africa, Iran, China, Mexico, Turkey, Brazil, Indonesia, and India. We also include the 27-Member European Union to provide a basis for comparison.

[6] Note that among the countries we distinguish, only India would see its budget increase, but just by 3%.

[7] A negative budget here reflects the fact that the historical emissions taken into account via the responsibility criterion is higher than the current carbon budget allocated via the other criteria.

[8] The question of the monetary valuation of past emissions is a research topic in itself that we do not address in this text. As an illustration, a valuation of one tonne of CO<sub>2</sub> at \$1 would lead to a global amount of \$263 billion, and for a valuation at \$20, it would be \$5260 billion.

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# Reducing uncertainty to facilitate economic recovery

Elliot Aurissergues (Economist at the OFCE)

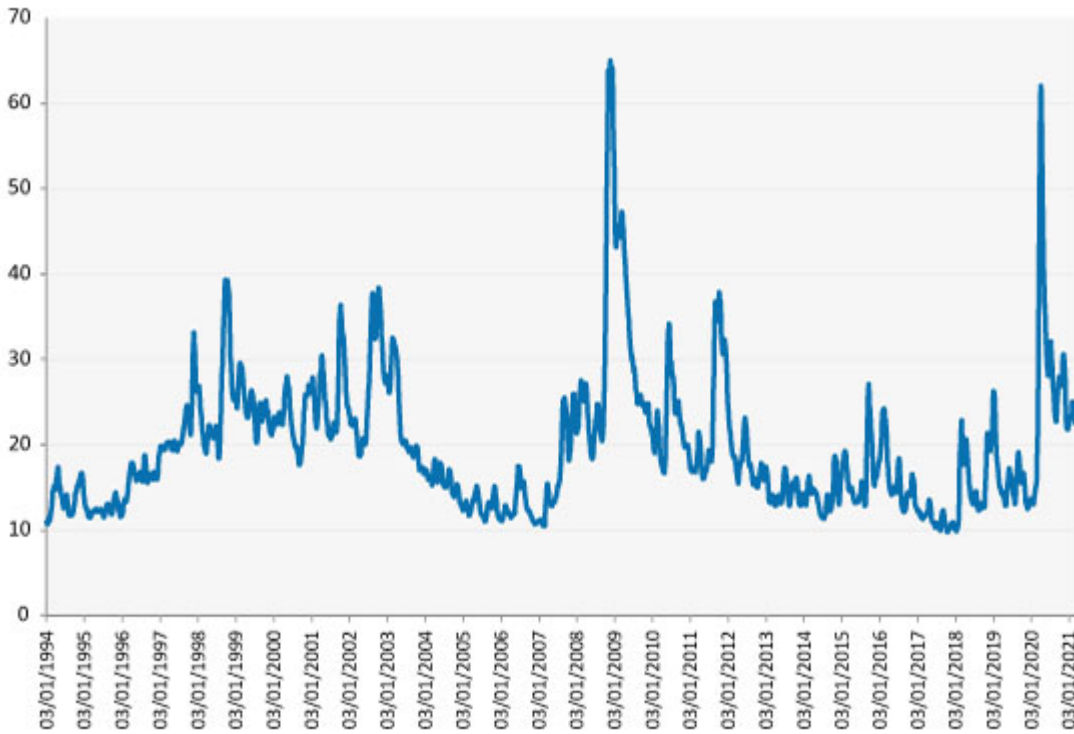
As the health constraints caused by the pandemic continue to weigh on the economy in 2021, the challenge is to get GDP and employment quickly back to their pre-crisis levels. However, companies' uncertainty about their levels of activity and profits in the coming years could slow the recovery. In order to cope with the possible long-term negative effects of the crisis, and weakened by their losses in 2020, companies may seek to restore or even increase their margins, which could result in numerous restructurings and job losses. Economic recovery could take place faster if business has real visibility beyond 2021. While it is difficult for the current government to make strong commitments, on the other hand mechanisms that in the long term are not very costly for the public purse could make it possible to take action.

## Post-pandemic uncertainty will hold back a recovery

In economic terms, the pandemic represents an atypical crisis. It combines both goods and labour supply shocks and a fall – largely constrained – in consumption (Dauvin and Sampognaro,

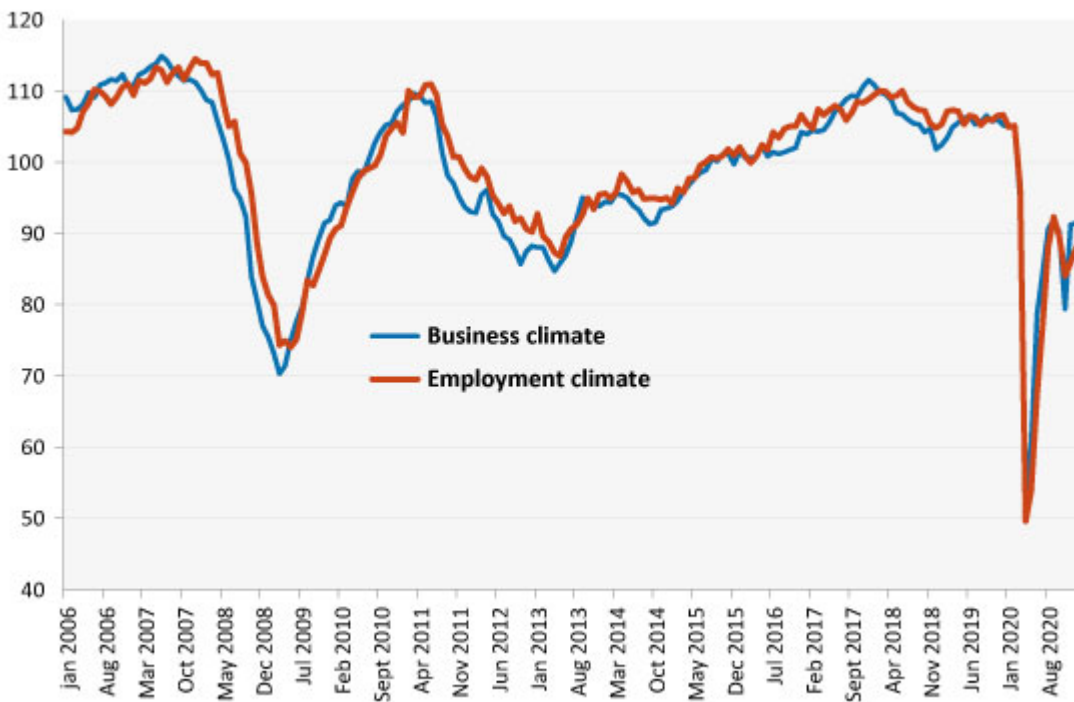
2021). There are not many recent episodes that can provide useful points of comparison for economic actors. Some elements do indicate a rapid return to normalcy, including the dynamism of some Asian economies, in particular the Chinese economy, and the resilience of the US economy and the Biden administration's economic policy. On the other hand, there are other factors that may limit economic growth in the coming years. The heavy losses of some companies could lead to a wave of bankruptcies (Guerini *et al.*, 2020; Heyer, 2020), with possible negative effects on productivity or the employment of certain categories of workers. Some consumption patterns could be modified permanently, with a heavy impact on sectors like aeronautics and retailing. The trajectories of some of the emerging economies are another unknown, as they cannot afford the same level of fiscal support as do the US and Europe. Finally, the concentration of the shock on sectors that tend to employ low-skilled workers risks increasing inequalities within countries, and thus generating a further rise in global savings. Some indicators reflect this still high uncertainty. The VIX index, which captures market expectations for the volatility of US stock prices, remains twice as high as before the crisis and is comparable to the levels reached during the Dotcomcrisis (see Figure 1). In France, the business and jobs climate has rebounded strongly from its historical low in March-April 2020, but is still at the same level as during the low point of the eurozone crisis in 2012-2013 (see Figure 2).

Figure 1. Changes in the VIX index since 1994



Sources: Chicago Board Options Exchange, VIX smoothed over 20 days, OFCE calculations.

Figure 2. Business and jobs climate in France



Source: INSEE.

The literature shows that uncertainty about the medium-term path of the economy affects the way companies behave today. By identifying uncertainty with stock price volatility, Bloom (2009) suggests that it has had a significant negative impact on GDP and employment in the US. A number of other studies

have used different methodologies to confirm this idea [\[1\]](#). Given the severity of the recession in 2020, uncertainty could have an even greater impact. Effects that are usually second-order may be enough to derail an economic recovery.

### **A proposal for giving visibility to businesses**

The measures in France's current stimulus package basically focus on 2021 and 2022 and do not give any visibility to businesses about their activity or cash flow beyond 2022. It is true that it is difficult for the current government to commit to major expenditures that would have to be assumed by future governments. However, it is possible to envisage relatively strong measures that have limited budgetary costs over the next ten years (and therefore a limited impact on the fiscal manoeuvring room of future governments).

**Proposal:** Give companies the following **option**: a subsidy of 10% of their wage bill (wages under 3x the minimum wage – the SMIC) between 2022 and 2026 in exchange for an additional tax of 5% on their gross operating profits (EBITDA) over the period 2022-2030.

For firms applying for the scheme, this is **the fiscal equivalent of a temporary recapitalization**. They exchange a subsidy today for a fraction of their profits tomorrow. The implicit cost of capital would be particularly attractive. The scheme is calibrated so that its "interest rate" (given by the ratio between the sum of additional taxes over 2022-2030 and

the sum of subsidies over 2022-2026) is close to 0% for the “average” French company. This rate would be lower *a posteriori* for companies that will have performed less well than expected. Compared with other recapitalization methods such as direct public shareholdings or the conversion of loans into quasi-equity, there is no risk that the current shareholders will lose control of the company.

The advantage of the scheme is that it automatically targets the companies that face the greatest need. The businesses that anticipate possible economic difficulties over the next few years and that have employment-intensive activities will self-select, while others will have no interest in applying for the subsidy. As the subsidy is disbursed gradually, companies that maintain employment over the period will be favoured. Capital-intensive and high-growth companies would not be penalized, as the scheme would remain optional. The additional tax on EBITDA is temporary and should not have a negative impact on investment by those applying for it.

The cost in terms of public debt up to 2030 would be low: about 10 billion euros [\[2\]](#), or 0.4 percentage points of GDP, if all companies were to apply. The self-selection effect of the scheme would increase the

average cost per beneficiary company but would also decrease the number of beneficiaries, thereby having an ambiguous impact on the total cost. This does not take into account the beneficial impact of the scheme on the public finances in so far as it prevents job losses and the non-repayment of certain guaranteed loans. The fiscal impulse over 2022-2025 could on the other hand be quite strong, on the order of 1 to 1.5 GDP points per year (i.e. 4 to 6 GDP points over the four years) but would be counterbalanced by an automatic increase in revenue over 2025-2030 [3].

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[1] Fernandez-Villaverde, Guerron-Quintana, Rubio-Ramirez and Uribe (2011) show that increased interest rate volatility has destabilizing effects on Latin American economies. In a 2015 paper, the same authors suggest that increased uncertainty about future US fiscal policy leads firms to push up their margins, reducing economic activity. This result has been confirmed by Belianska, Eyquem and Poilly (2021) for the euro zone. Using consumer confidence surveys, Bachmann and Sims (2012) show that pessimistic consumers

reduce the effectiveness of fiscal policy during a recession. Finally, uncertainty among CEOs has a negative impact on output, as shown by German data analysed by Bachmann, Elstner and Sims (2013).

[2] The total of wages below 3 SMICs in 2019 was on the order of 480 billion euros (the total of gross wages and salaries came to 640 billion for non-financial companies, and the latest INSEE data suggest that wages below 3 SMICs represent 75% of the wage bill, an amount that seems consistent with the data on the cost of France's CICE tax scheme). The EBITDA of non-financial companies was 420 billion euros. Based on these 2019 figures, and if all companies were to apply for the scheme, the total subsidy would amount to  $0.1 \times 480 \times 4$  or 196 billion euros. The EBITDA tax would under the same assumptions yield  $0.05 \times 420 \times 8 + 0.05 \times 196$  (5% of the subsidy will be recovered via the extra EBITDA) or 186 billion euros.

[3] This additional tax revenue should not penalize activity over this period because (1) it will concern capital income for which the marginal propensity to consume is rather low, and (2) the beneficiary companies should be able to anticipate it correctly.

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# Dispersion of company markups internationally

[Stéphane Auray](#) and [Aurélien Eyquem](#)

The strong globalization of economies has increased interest in the importance of markups for companies with an international orientation. A markup is defined as the difference between the marginal cost of production and the selling price. Empirical evidence is accumulating to show that these markups have increased significantly in recent years (Autor, Dorn, Katz, Patterson, and Reenen, 2017; Loecker, Eeckhout, and Unger, 2020) and that large corporations account for a growing share of the aggregate fluctuations (Gabaix, 2011). Moreover, the dispersion of markups is considered in the literature as a potential source of a misallocation of resources – capital and labour – in both economies considered to be closed to international trade (see Restuccia and Rogerson, 2008, or Baqaee and Farhi, 2020) and economies considered to be open to trade (Holmes, Hsu and Lee, 2014, or Edmond, Midrigan and Xu, 2015). Finally, it has recently been shown by Gaubert and Itskhoki (2020) that these markups are a key determinant of the granular origin – i.e. linked to the activity of big exporters – of comparative advantages, or in other words, they may be a

determinant of trade competitiveness.

In a recent paper (Auray and Eyquem, 2021), we introduce a dispersion of profit margins by assuming strategic pricing via Bertrand-type competition in a two-country model with endogenous variety effects and international trade along the lines of Ghironi and Melitz (2005). Our aim is to understand the interaction between these margins, firm productivity and entry-and-exit phenomena in domestic and foreign markets. If there are distortions in the allocation of resources, as is usually the case in these models, our corollary objective is to study the implementation of optimal fiscal policy.

In models with heterogeneous firms such as Ghironi and Melitz (2005), firms are assumed to be heterogeneous in terms of individual productivity. The most productive firms are more likely to enter markets, because they are better able to pay fixed entry costs, whether in local or export markets. Moreover, because these firms are more efficient, their production costs are lower, which allows them to capture larger market shares. These effects, which seem relatively intuitive, have already been widely validated empirically.

In general, the introduction of strategic pricing behaviour allows firms with larger market shares to benefit from greater price-setting power, which leads them to charge higher markups – it being understood that the resulting selling prices may be lower than those of their competitors. A growing literature on international trade emphasises the importance of this kind of strategic behaviour and the resulting dispersion of markups for determining patterns of trade openness and their sectoral composition (see, for example, Bernard, Eaton, Jensen and Kortum, 2003; Melitz and Ottaviano, 2008; Atkeson and Burstein, 2008) but also for the magnitude of the welfare gains associated with trade (Edmond, Midrigan and Xu, 2015). Indeed, in addition to the usual impact of openness to trade, it could also reduce the adverse effects of the dispersion of markups through the resulting increase in competition, thereby boosting its positive effects.

First, as expected, when fiscal policy is passive, Bertrand competition generates a distribution of markups such that firms that are larger – hence the more productive firms – offer lower prices, attract larger market shares and obtain higher profit margins. Moreover, the mechanism for the selection of exporting firms described by Melitz (2003) implies that these firms are

more productive and therefore charge higher markups. These results are intuitive and consistent with the observed distribution of markups (see Holmes, Hsu, and Lee, 2014).

Second, we characterize the optimal allocation of resources and show how it can be implemented. The best possible equilibrium fully corrects for price distortions and implies a zero dispersion of markups and a near zero level of markups. It is implemented, as is often the case in this literature, by generous subsidies that cancel out markups while preserving the incentive for firms to enter domestic and export markets, i.e. by allowing them to cover the fixed costs of entry. This first-order equilibrium can be achieved using a combination of subsidies for a firm's specific sales, a tax scheme on profits that differentiates between non-exporting and exporting firms, and a specific labour tax.

In a similar model where markups are assumed to be the same for all firms, the best equilibrium is the same but, in contrast, much easier to implement through a single policy instrument: a uniform and time-varying subsidy for all firms.

In both cases, the gains associated with such policies are very large compared to the laissez-faire case, representing a potential increase in household consumption

of around 15%. However, given the complexity of implementing a scheme with heterogeneous markups and a cost to the public purse of over 20% of GDP – implementation requires large amounts of subsidies, whether the markups are heterogeneous or homogeneous – we consider second-order alternative policies, where the number of policy instruments is limited and the government budget must be balanced. We find that these restrictions significantly reduce the ability of policy makers to cut the welfare losses associated with the laissez-faire equilibrium, and that only one-third of the potential welfare gains can be implemented in this case.

Third, while the first-order allocations are independent of the degree of pricing behaviour, we find that the welfare losses observed in the laissez-faire equilibrium are lower when markups are heterogeneous and higher on average than the markups observed in the absence of strategic pricing. While this may seem surprising, the result can be rationalized by considering the effects of markup dispersion on both the intensive markup – the quantity produced per firm – and the extensive markup – the number of firms in the markets. Indeed, Bertrand competition implies that the dispersion and the average level of markups are positively related. Markup dispersion thus increases the level of markups with two effects. On the one

hand, all other things being equal, higher markups reduce the quantity produced by each firm – the intensive markup – and induce a misallocation of resources that generates welfare losses. On the other hand, higher markups imply higher expected profits for potential entrants, which stimulates entry and thus increases the number of existing firms – the extensive markup. According to our model, the welfare gains associated with the second effect dominate the welfare losses associated with the first effect. The result therefore implies that the dispersion of markups can generate welfare gains, at least when no other tax or industrial policy is pursued.

Fourth, while the previous results mainly focus on the implications of our model and the associated optimal policies on average over time, we also study their dynamic properties. Within the framework of passive (*laissez-faire*) fiscal policies, when the economy experiences aggregate productivity shocks – technological, for instance – the model behaves broadly like the Ghironi and Melitz (2005) model. An original prediction of our model is that markups are globally countercyclical while export markups are procyclical. The optimal policy involves adjustments in tax rates in order to reverse this trend, to align all markups over the business cycle and to make all markups procyclical.



These results are consistent with the findings of studies that focus on the optimal cyclical behaviour of markups with heterogeneous firms in closed (Bilbiie, Ghironi and Melitz, 2019) and open (Cacciatore and Ghironi, 2020) economy models. However, conditionally on aggregate productivity shocks, the dispersion of markups has little effect quantitatively compared to a similar model with homogeneous markups.

Finally, in the spirit of Edmond, Midrigan and Xu (2015), we conducted a trade liberalization experiment whereby the costs of trade gradually and permanently decline to almost zero. We find that the long-run welfare gains are much larger when the policy implemented is optimal. On the other hand, the laissez-faire equilibrium indicates that short-run welfare gains are affected by markup dispersion. Indeed, markup dispersion affects the dynamics of business creation resulting from trade liberalization in a critical way. As in Edmond, Midrigan and Xu (2015), markup dispersion reduces the long-run welfare gains from trade, but for a different reason: it affects the dynamism of business creation and reduces the number of firms in the long run. However, since in this case fewer resources are invested in the short run to create new companies, consumption increases more at the intensive markup in the short and medium run – less than

10 years. While the long-run welfare gains from trade integration vary from 12% to 14.5%, depending on the calibration, the short-run welfare gains with heterogeneous markups can be up to 3% larger than with homogeneous markups.

The conclusions of this study lead to an approach to corporate profit margins that is more nuanced than that usually found in the literature. Indeed, while the markups and their dispersion do have negative effects on the economy, they also have an important role to play in the phenomena of business entry and participation in international markets. Our work is a complement to a strictly microeconomic approach to industrial policy issues, which would conclude unequivocally that the market power at the origin of these markups is harmful. As such, in the manner of Schumpeter, this calls for a more balanced view of the role of company markups in modern economies, which would show a tension between distortions of competition and incentives to business creation.

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# What factors drove the rise in euro zone public debt from 1999 to 2019?

by [Pierre Aldama](#)

*Between 1999 and 2019, the eve of the Covid-19 pandemic, the public debts of the 11 oldest euro zone members had risen by an average of 20 percentage points of GDP. This increase in public debt is commonly attributed to structural budget deficits, particularly those in the pre-crisis period and in the "South". But how much of the stock of public debt in 2019 can be attributed to structural deficits, and how much to GDP growth, interest payments or cyclical deficits? In this post, we use the December 2020 edition of the OECD's Economic Outlook to break down the changes in public debt into its main factors: structural and cyclical primary balances, the interest burden, nominal GDP growth and stock-flow adjustments. This shows that the structural deficits generally contributed less than is commonly assumed, and that the increase in*

*public debt over the period was largely the result of the direct and indirect consequences of the double-dip recession in the euro zone.*

On the eve of the Covid-19 crisis, the 11 oldest euro zone countries had an average level of public debt (in the Maastricht sense) of 92% of GDP. Between 1999 and 2019, the public debt in these 11 countries increased by an average of 20 percentage points of GDP, although with considerable heterogeneity (Figure 1). On the one hand, a group of so-called virtuous countries – Germany, the Netherlands, Austria, Finland and Ireland – reduced their debt ratios to their 1999 level of 60% of GDP or even lower. In contrast to this were the countries whose public debt increased – France, Spain, Greece and Portugal – or remained at a high level – Belgium and Italy. Can we simply deduce from this that there are some countries that acted like the proverbial ant and others like the grasshopper? Probably not.

Indeed, not all countries entered the European Monetary Union (EMU) with the same level of debt: their starting point therefore biases observation insofar as it does not inform about the structural or cyclical factors or to the interest burden associated with the fiscal policy in place from 1999 to 2019. Is the rise in public debt in the “grasshopper” countries largely attributable to the accumulation of structural

deficits, or on the contrary, to cyclical factors and the impact of the recessions in the euro zone (2008-2010 and 2011-2013)?

This post uses the December 2020 edition of the OECD's *Economic Outlook* to break down the changes in public debt into the main components: structural and cyclical primary balances, the interest burden, nominal GDP growth and stock-flow adjustments. This shows that the contribution of structural deficits is generally lower than commonly assumed and that the increase in public debt over the period largely results from the direct and indirect consequences of the double-dip recession in the euro zone.

### **The accounting decomposition of public debt dynamics**

The change in public debt (as a percentage of GDP) between year  $t$  and year  $t-1$  can be broken down into five main factors, using the following equation:

$$\Delta d_t = \frac{r_t}{1+y_t} d_{t-1} - \frac{y_t}{1+y_t} d_{t-1} + sp_t^{cyc} + sp_t^{struc} + afs_t$$

where  $r_t / (1+y_t) d_{t-1}$  is the effect of the interest burden,  $-y_t / (1+y_t) d_{t-1}$  is the effect of nominal GDP growth (and the sum of the two terms is the infamous snowball effect<sup>[1]</sup> of public debt),  $sp_t^{cyc}$  is the cyclical component of the primary budget balance (excluding the interest

burden),  $sp_t^{struc}$  is the structural primary balance (adjusted for the output gap) and  $afs_t$  represents the stock-flow adjustments, i.e. transactions on the assets and liabilities of general government that are not accounted for in the primary balance.

By aggregating each of these terms, we calculate the contributions to the total change in public debt between 1999 and 2019 (Figure 2) and year by year (Figure 3). Finally, Figures 4A and 4B present breakdowns of the public debt similar to Figure 2 but over two sub-periods: 1999-2008 and 2008-2019.

Figure 1. Public debt/GDP in the Maastricht sense from 1999 to 2019, in GDP points

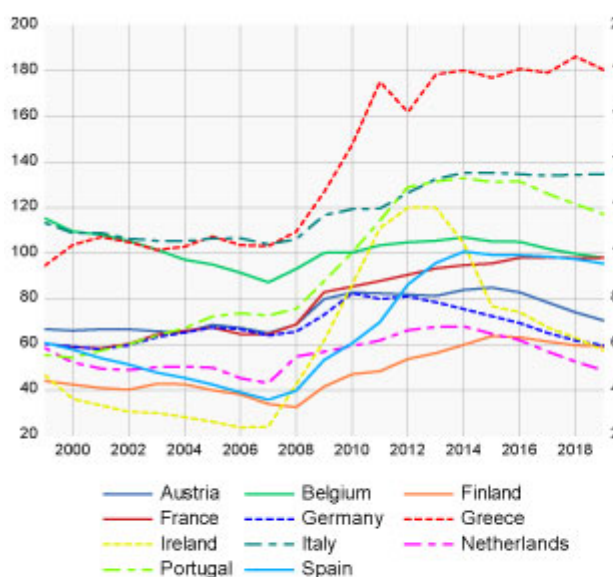
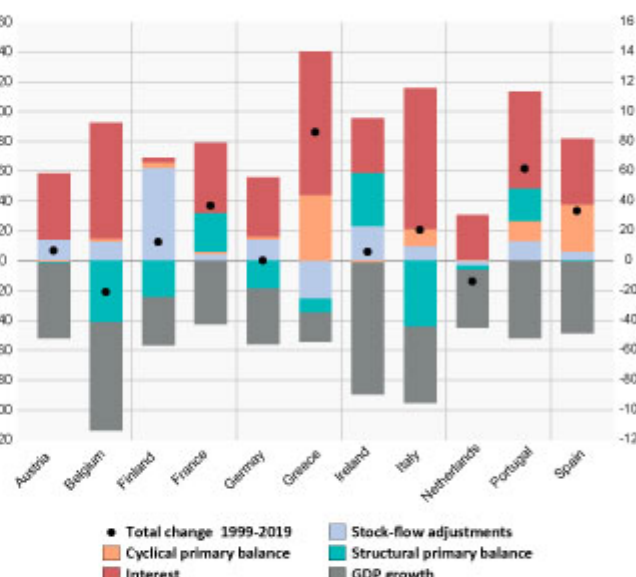


Figure 2. Breakdown in the change in public debt from 1999 to 2019, in GDP points



Notes: For each country, the total change from 1999 to 2019 in the public debt/GDP ratio is broken down between the effects of the interest burden, of GDP growth, of cyclical and structural primary surpluses (+) and deficits (-), and finally of stock-flow adjustments (i.e. of transactions on the assets and liabilities of general government that are not accounted for in the primary balance).

Source: OECD Economic Outlook 2020/2, author's calculations.

## The scars of the double recession of 2008-2010 and 2011-2013 in the euro zone

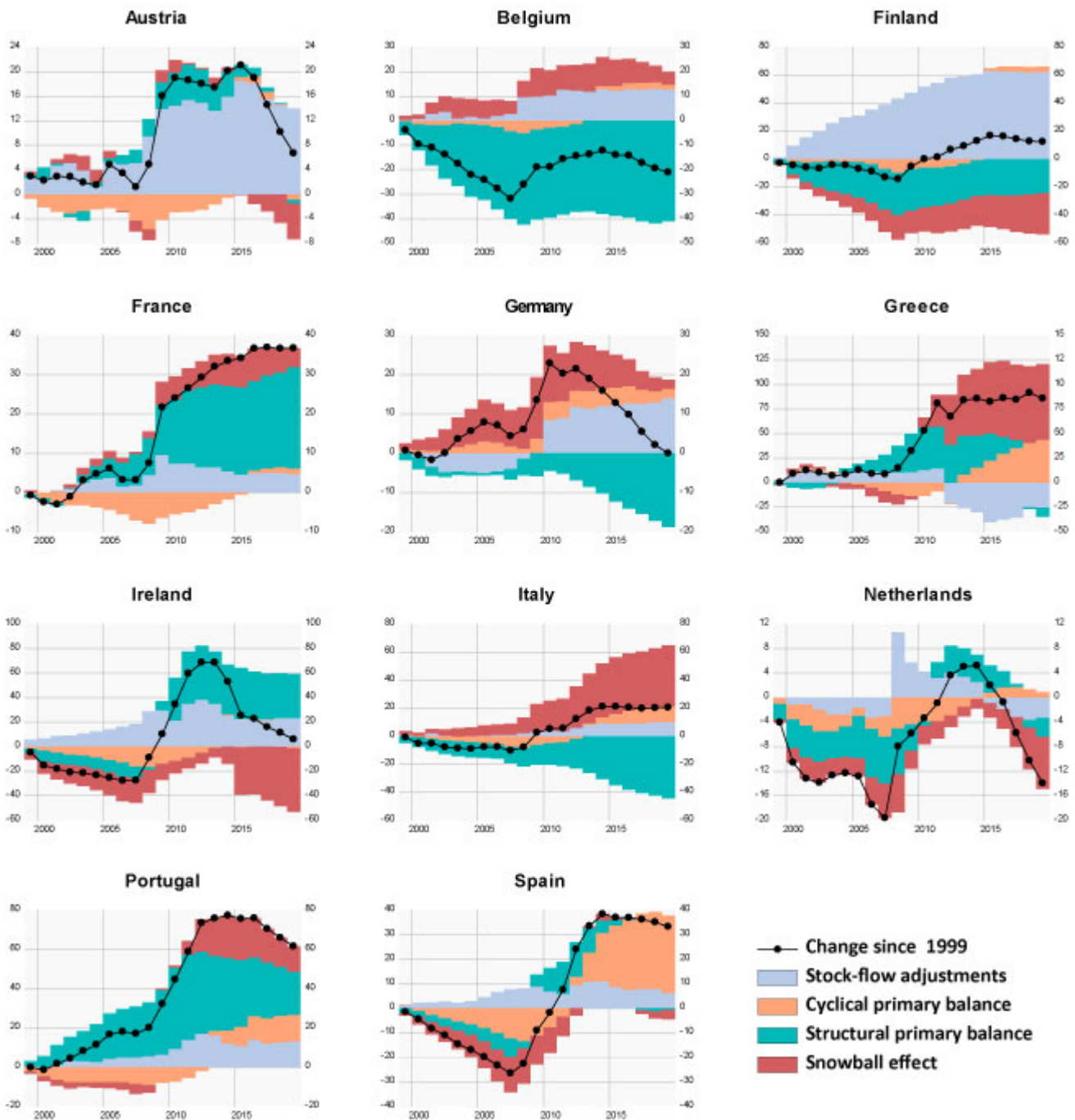
The rise in public debt in the EMU is largely explained by the cyclical effects of the double recession of



2008-2010 and 2011-2013 (Figure 3). Between 2008 and 2019, in the three countries with the largest increases in public debt (Greece, Spain, Portugal), the rise in debt is due largely to cyclical primary deficits and the snowball effect. Greece is a striking example: the snowball effect accounts for almost 3/5 of the increase in public debt between 1999 and 2019, and this is concentrated mainly between 2008 and 2019, with the collapse of the level of GDP. In contrast, the apparent Irish “miracle” is actually due to massive nominal growth in 2015, which in turn is explained by [the relocation of existing intangible assets in Ireland by multinationals](#).

Moreover, any positive contribution of *structural* deficits to debt growth during the 2008-2010 crisis is in fact an optimal countercyclical response of fiscal policy during the recession, and cannot be interpreted as a lack of fiscal seriousness *per se*. This was the case, however, in fewer than half of the countries studied: Spain, the Netherlands, France, Austria, and Ireland, and for the other countries this largely reflects the pro-cyclical character of discretionary fiscal policies in the euro zone over the period ([Aldama and Creel, 2020](#)).

Figure 3. Change in the public debt/GDP ratios and cumulative contributions since 1999, in GDP points



Notes: For each country, the total change from 1999 to 2019 in the public debt/GDP ratio is broken down between the effects of the interest burden, of GDP growth, of cyclical and structural primary surpluses (+) and deficits (-), and finally of stock-flow adjustments (i.e. of transactions on the assets and liabilities of general government that are not accounted for in the primary balance).

Sources: OECD Economic Outlook 2020/2, author's calculations.

Finally, in general, the contribution of the stock-flow adjustments increases sharply after the 2008 crisis, mainly due to the banking sector rescue plan. In the case of Greece, the negative contribution of these adjustments largely corresponds to the 2012 default.

## Northern surpluses vs. Southern structural

## deficits in the euro zone?

Over the period 1999-2019, it appears that only three countries (France, Ireland and Portugal) showed a positive contribution of structural primary deficits to the rise in public debt. Remarkably, both Greece and Italy stand out from these countries with a negative contribution due to their structural primary surpluses, as shall be seen later, due in particular to the structural fiscal adjustment carried out since 2010 in the case of Greece. Belgium, which was heavily indebted at the time of its entry into the EMU (114% of GDP), is also characterised by the strong negative contribution of its structural primary balance to debt growth.

Figure 4A. Breakdown in the change in the debt between 1999 and 2008, in GDP points

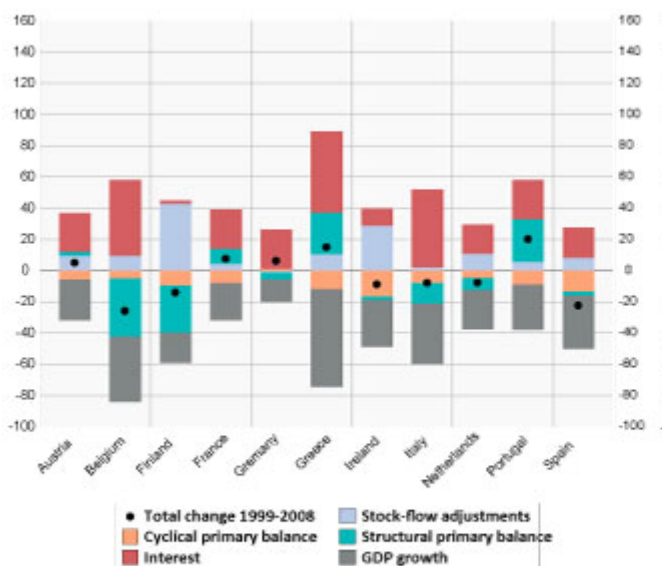
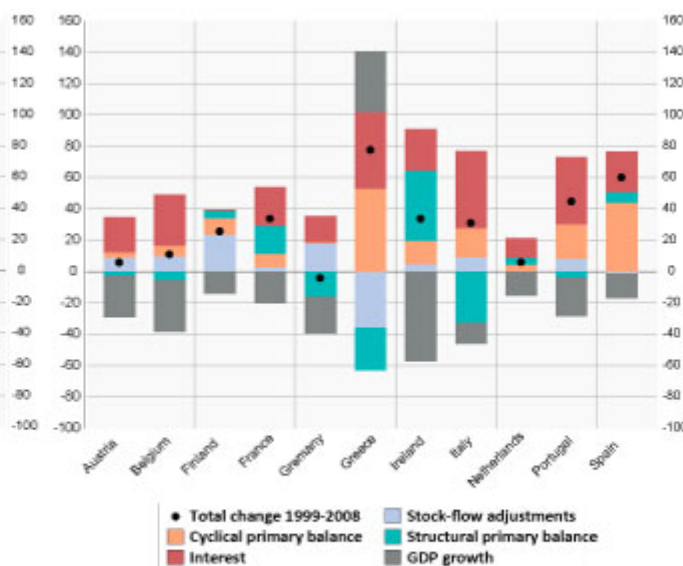


Figure 4B. Breakdown in the change in the debt between 2008 and 2019, in GDP points



Notes: For each country, the total change from 1999 to 2019 in the public debt/GDP ratio is broken down between the effects of the interest burden, of GDP growth, of cyclical and structural primary surpluses (+) and deficits (-), and finally of stock-flow adjustments (i.e. of transactions on the assets and liabilities of general government that are not accounted for in the primary balance).

Sources: OECD Economic Outlook 2020/2, author's calculations.

In the case of Greece, we observe in particular the sharp decline in the contribution of the structural primary balance, which even becomes negative in 2019: in other words, by 2010 Greece has

more than offset the effect of its previous structural primary deficits. Even more remarkably, Italy has pursued a very tight fiscal policy *over the entire period*, in so far as the (negative) contribution of its structural primary surplus has steadily increased in absolute terms. Portugal lies in between, and started to run structural primary surpluses, without cancelling out the effect of its pre-2010 deficits. Ireland, sometimes presented as the “good pupil” in the euro area following the 2010 crisis, did not have post-crisis structural surpluses that offset the structural deficits run up during the crisis (the contribution to the change in debt was stable).

Focusing on the pre-2008 period (Figure 4A) and the so-called Southern countries, again only Greece and Portugal saw a positive contribution of their structural deficits to debt growth, while the contribution of the primary structural surpluses in Ireland, Italy and Spain was negative.

On the Franco-German side, the divergence is clear. German fiscal rigour appears almost extreme: even following the 2008-2010 crisis, the federal government’s primary structural balance did not contribute positively to debt growth, reflecting a very weak countercyclical discretionary policy (the German structural balance increased by 1 GDP point in 2010).

Conversely, in the case of France, a large part of the variation in public debt can be explained by the structural deficits recorded *both before and after* 2008 (Figures 4A and 4B), although this slowed down in the second half of the 2010s (Figure 3). Thus, of the 37 GDP points of public debt accumulated since 1999, almost 26 points came from structural deficits accumulated over the period.

Of course, the distinction between the structural balance and the cyclical balance is critically based on the estimation of the level of “potential” GDP, i.e. of full utilization of production factors, without inflationary pressures. This measure is subject to great uncertainty, and there have been many criticisms, such as that it is too sensitive to the macroeconomic cycle and to demand shocks ([Coibion et al. 2018](#); [Fatas and Summers 2018](#)). Some studies suggest that the level of potential activity may be underestimated. This likely bias in potential GDP estimates points to the need for a note of caution about any definitive interpretation of the structural vs. cyclical nature of budget deficits or surpluses. [\[2\]](#)

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While public debt has increased overall in the euro zone since 1999, a large part of this growth is explained by the direct and indirect consequences of the 2008 crisis, through cyclical deficits, the aggravation of the snowball effect and the *structural* weakness

of growth in certain Southern European countries.

On the contrary, most of the more indebted countries today ran high primary structural surpluses over the period, such as Italy and Belgium. Greece has even more than offset the positive contribution of its past structural deficits. This is the reason why a reading grid that is still overly used, that of the North versus the South, or of fiscal strictness versus fiscal leniency, cannot stand up to a simple accounting analysis of the dynamics of public debt.

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[1] The snowball effect of public debt is the effect of the differential between the interest rate paid on the accumulated stock of debt and the economy's growth rate. If this differential is positive, then for a given primary budget balance public debt tends to increase mechanically; conversely, if it is negative, public debt tends to decrease mechanically.

2] However, using *the OECD Economic Outlook* has the advantage of providing a homogeneous approach across countries, and therefore a relatively uniform bias between them. Moreover, the measure of potential GDP used by the OECD is [less cyclical than the measures used by the IMF and the European Commission](#).

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# Monetary Policy During the Pandemic: Fit for Purpose?

[Christophe Blot](#), Caroline Bozou and [Jérôme Creel](#)

In a recent [Monetary Dialogue Paper for the European Parliament](#), we review and assess the different policy measures introduced by the ECB since the inception of the COVID-19 crisis in Europe, mainly the extension of Asset Purchase Programme (APP) measures and the development of Pandemic Emergency Purchase Programme (PEPP) measures.

APP and PEPP have had *distinct* objectives in comparison with former policies. APP has been oriented towards price stability while PEPP has been oriented towards the mitigation of financial fragmentation.

To this end, we start by analysing the effects of APP announcements (including asset purchase flows) on inflation expectations via an event-study approach. We show that they have helped steer expectations upward.

Then, we analyse the impact of PEPP on sovereign spreads and show that PEPP has had heterogeneous effects that have alleviated fragmentation risk: PEPP has had an impact on the sovereign spreads of the most fragile economies during the pandemic (e.g. Italy) and no impact on the least fragile (e.g. the

Netherlands). However, sovereign spreads have not completely vanished, making monetary policy transmission not fully homogeneous across countries.

On a broader perspective, we also show that overall macroeconomic effects have been in line with expected outcomes since the mid-2000s: ECB monetary policy measures have had real effects on euro area unemployment rates, nominal effects on inflation rates and financial effects on banking stability. These results are in line with recent estimates at Banque de France ([Lhuissier and Nguyen, 2021](#)).

As a conclusion, an increase in the size of the PEPP program, as recently decided by the ECB, will be useful if financial risks re-emerge. Meanwhile, we argue that an ECB decision to cap the sovereign spreads during the COVID-19 crisis would alleviate the crisis burden on the most fragile economies in the euro area, where sovereign spreads remain the highest.

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**Spain: Beyond the economic and social crisis,**



# opportunities to be seized

by [Christine Rifflart](#)

Spain has been hit hard in 2020 by the Covid-19 health crisis, which the authorities are struggling to control, accompanied by an economic recession that is one of the most violent in the world (GDP fell by 11% over the year according to the INE)[\[1\]](#). The country's unemployment rate reached 16.1% at the end of last year, a rise of 2.3 points over the year despite the implementation of short-time work measures. The public deficit could exceed 10% of GDP in 2020, and the public debt could approach 120% according to the Bank of Spain's January 2021 forecasts. Europe has enacted large-scale support programmes for affected countries, and as one of these Spain will be the country receiving the most EU-level aid. It will benefit from at least 140 billion euros, with 80 billion of that (i.e. 6.4% of 2019 GDP) taking the form of direct transfers through the *NextGenerationEU* programme.

This aid is arriving in a very particular political context, marked by the progressive aspirations of a coalition government (PSOE-Unidas / Podemos) that has governed for just over a year, and which still appears to be solid. The commitments made in December 2019 between the two

parties in a joint Pact entitled "[Coalicion Progresista – Un nuevo acuerdo para Espana](#)" [Progressive Coalition – A New Agenda for Spain] have now been included in the recovery plan sent to the EU Commission, and the first measures of the planned reforms have been included in the 2021 budget. In this difficult health and economic situation, the Spanish government could seize the opportunity provided by this crisis to carry out a thorough restructuring of the country with the help of European funds and push through some of the social reforms announced in the PSOE-UP Pact. The needs, it must be said, are great. In 2018, the poverty rate was 19.3% among young people and 10.2% among those over 65 (compared with 11.7% and 4.2% respectively in France). Even though annual growth averaged close to 3% over the period 2015-2019, Spain's unemployment rate has remained at a very high level (14.1% in 2019), and labour productivity is still almost 25% lower than in France. There are significant regional disparities and insufficient investment, particularly public investment. But Spain could turn the corner over the next few years. The measures announced are commensurate with the government's ambitious aspirations for growth, employment, and social equity. The greater risk is probably to the government's solidity and its political capacity to implement it.

**The 2021 budget, the first since July 2018!**

Spain has gone two years without a budget vote, as the 2018 budget was extended twice after being amended by government decrees. But the government has finally managed to provide itself with a 2021 budget while impeccably respecting the timetable it had set out. The budget was sent to Brussels on 10 October 2020, approved on 3 December by the Congress of Deputies (Spain's lower chamber), and on 22 December by the Senate, and so was adopted in less than three months. However, nothing can be taken for granted. The latest legislative elections in November 2019 (the fourth in four years) failed to give an absolute majority in Parliament to the socialist party PSOE, or even to the leading two parties combined (i.e. PSOE-UP, 155 deputies out of 350). So Pedro Sanchez's coalition government was compelled to seek the support of the small pro-independence and regionalist parties for the adoption of its budget. After three months of negotiations and several thousand amendments, a large majority was obtained. Of the 350 deputies in Congress, 188 from 11 different political formations voted in favour (155 from PSOE-UP, 13 from the ERC and 6 from the PNV). It must be said that a political failure would have been very unwelcome given the great needs and expectations and the favourable opportunities.

**European funding to carry out the modernization of Spain's production infrastructure, as set out in the PSOE-UP Pact of December 2019**

According to Spain's Finance Minister [\[2\]](#), the country is expected to receive 79.8 billion euros in European subsidies over the period 2021-2023 under the *NextGenerationEU* programme. This is over 10 billion more than the amount announced by the Commission in the spring of 2020 (69.4 billion, a revision of +14.9%), as the 2020 growth forecasts made last autumn were more pessimistic than those made six months earlier, and due to converting the initial funding from 2018 prices to current prices. The revision concerns the allocation of the Recovery and Resilience Facility (RRF), which has increased from 59.2 billion euros to 69.5 billion, with the grant under the REACT EU programme remaining at 10.3 billion. Spain is thus now the largest recipient of EU funds, ahead of Italy, which is to receive 79.6 billion (up from 76.1 billion initially announced), i.e. 4.4% of its 2019 GDP, 2 points less than Spain. Seventy percent of this allocation is guaranteed for 2021-2022 (46.6 billion) [\[3\]](#). The balance over 2023 will have to be reassessed in June 2022, depending on the economic situation and the state of public finances in the light of the Stability and Growth Pact rules, which are likely to be restored by that date.

In order to benefit from European funds, Spain, like all its partners, has to present its National Plan for Recovery, Transformation and Resilience, which aims to stimulate short-term growth through investment and consumption [\[4\]](#), and to promote a "more sustainable, more resilient economy

that is prepared for the challenges ahead”, in the words of the Commission. Ultimately, the government’s objective is to raise potential growth by 0.4-0.5 percentage points to over 2% per year by 2030.

While Spain traditionally has a low rate of absorption of European funds, this time the government wishes to speed up the process greatly. So on 20 January (with a deadline set for 30 April), the government submitted to Brussels the 30 files in its Recovery plan presenting the investment projects and the guidelines for the reforms envisaged in the areas of taxation, the labour market, and pensions, which are intended to ensure the country’s transition. It even foresees anticipating the release of the RRF funds (scheduled after the Commission examines the Recovery plan for two months) by financing the investments with debt. It must be acknowledged that the needs are immense in Spain’s production system, which is marked by the importance of SMEs. At the end of 2019, 53.5% of businesses were made up of the self-employed, 40% had between 1 and 9 employees, and 5.5% had between 10 and 49 employees, in total accounting for half of all jobs. According to the government’s intentions:

- 37% of the funds are earmarked for the ecological transition (250,000 new vehicles purchased by 2023, installation of

- 100,000 charging stations, transformation of the electrical system to 100% renewable energy by 2050, and the renovation of more than 500,000 homes for improved energy efficiency);
- 34% are for the digital transformation (with a coverage rate of 80% of the population, including 75% by 5G; development of teleworking for more than 150,000 public jobs; training for more than 2.5 million SMEs; etc.);
  - And 30% for Research and Development, education and training, and social and territorial inclusion.

The broad outlines of the reforms have also been drawn up. The new orientation of the tax reform aims at greater progressiveness and more redistribution [\[5\]](#), and is already included in the 2021 budget (see below). The reforms concerning the labour market, which is still very dual, and pensions have not yet been discussed in Parliament or with the social partners, so they are still at the stage of principles, which should, nevertheless, satisfy Brussels. As regards labour market reform, the main measures presented aim at generalizing the use of open-ended contracts and tightening up on the use of fixed-term contracts; strengthening the use of flexible working time as an alternative to fixed-term contracts and redundancies; the modification of active employment policies; calling into question the 2012 reform on

collective

bargaining; an employment programme targeted at young people (2021-2027); and modernizing

the public employment service (SEPE). The pension reform is less advanced and

is giving rise to greater tension between the partners. For example, in the

plan sent to Brussels the government did not include its proposal to increase

the contribution period for calculating pensions from 25 to 35 years.

Above all, however, Spain's National

Plan for Recovery, Transformation and Resilience presented to the

European Commission, which should lead to the disbursement of European funds,

is fully in line with the [Coalicion Progresista – Un nuevo acuerdo para Espana](#) Pact signed in December 2019 between the two ruling

coalition parties PSOE and UP-Podemos. The document's initial sections stress

the importance of investing in the digital transformation, the ecological

transition, and R&D and training to modernize Spain's economy and create

quality jobs. The European grants provide the left-wing government with a giant

opportunity to finance this project to transform Spain's productive infrastructure.

### **Higher taxation to finance the social measures included in the Pact**

In addition to the investment projects included in

the recovery plan and financed by European funds, in its 2021 budget the

government launched the tax reform presented in the Pact,

which is intended to finance the social measures planned or already taken. As mentioned above, the absence of a majority in the Congress of Deputies and the Senate has opened the way for negotiations with the small pro-independence and regionalist parties, and thus for concessions to obtain support. Not all the measures were approved [6]. Ultimately, the reform should bring in 7.7 billion euros [7], 1.4 billion less than what was set out in the budget bill sent to Brussels. If we add the cost of maintaining VAT on surgical masks at 0%, the shortfall to meet the deficit commitment comes to 3 billion euros.

The 2021 tax reform mainly focuses on large corporations and high income earners. It includes:

- **Reducing**

- the corporate tax exemption on dividends and capital gains received from foreign**

- subsidiaries from 100% to 95%. So**

- now the 5% not exempted is taxed at the general rate of 25% (30% in the

- case of banks and oil companies). This measure excludes SMEs (companies

- with a turnover of less than 40 million) for three years (expected gain of

- 1,520 million euros). In addition, the State has introduced a minimum tax

- on listed real estate investment companies (SOCIMIs) of 15% (+25 million

- euros);

- **A**

- 2-point increase in personal income tax (IRPP) on income**



over €300,000 and 3 points on savings income over €200,000 (raising the rate from 23% to 26%) (a total gain of €490 million). This measure affects the 36,200 individuals with the highest incomes (i.e. according to the Ministry, 0.07% of contributors) [\[8\]](#);

- A reduction from 8,000 to 2,000 euros in the IRPP exemption threshold for individual investments in **private pension funds** (+580 million) and an increase from 8,000 to 10,000 euros in the incentive threshold for companies;
- The tax on insurance premiums has been increased from 6% to 8% (+507 million);
- An increase in **VAT on sugary and sweetened drinks, excluding dairy products**, from 10 to 21% (expected gain of 360 million);
- The introduction of a 0.2% financial transaction tax for corporations with a capital of more than €1 billion (**Tobin tax**) and a 3% tax on the digital economy (**GAFAs tax**). These taxes should bring in €850 million and €968 million respectively. Adopted in 2020, they came into force on 16 January;
- A **green tax is being introduced** with the creation of a tax on single-use plastics (+491 million) along with other measures (tax on waste, etc.) (+861 million);
- Lastly, **measures to combat tax fraud** are being taken, with an expected gain of 828 million.

This additional tax revenue is intended to cover social expenditure, in particular the **Minimum Living Income**

introduced in June 2020 to reduce poverty and promote labour market integration. This will affect around 850,000 families (2.3 million people, 17% of the population). The amount of support ranges from 462 euros per month for a person living alone to 1,015 for a family. The pensions and salaries of civil servants will be increased by 0.9%, non-contributory benefits by 1.8%, and the reference indicator used to determine eligibility for many social benefits (IPREM) by 5% (it has been frozen since 2017). The other flagship measure concerns **dependency support**, with an additional 600 million, and **education**. On the other hand, the goal of raising the minimum wage (SMI) to 60% of the average wage by the end of the legislature (to between €1100 and €1200 per month in 2023) has been temporarily suspended. After a 20% increase in 2020, the SMI therefore remains at €950 per month for 14 months. The salaries of members of the executive have been frozen this year.

After long years of political instability, it is to be hoped that, despite the difficult context, the current coalition government will be able to continue to find a basis for agreement within the different Spanish political formations in order to take advantage of the favourable opportunities and open up new and constructive perspectives.

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[1] For a more detailed analysis of the crisis, please

refer to the [OFCE Policy Brief by Hervé Péléraux and Sabine Le Bayon: “Croissance mondiale confinée en 2020”, no. 82 of 14 January 2021.](#)

[2] The information must be approved by the European Parliament in the coming weeks.

[3] The distribution of these new amounts over 2021 and 2022 is not available. We do know, however, that of the 69.437 billion initially planned for the period 2021-2023, the State was to receive 26.634 billion in 2021, including 2.436 billion from the REACT EU fund for the purchase of vaccines. Out of the 26.634 billion received, the State is to disburse 10.8 billion to the regions, which are also to receive 8 billion REACT EU funds to strengthen their health and education systems.

[4] On the basis of an average multiplier of 1.2, in the budget bill sent to Brussels the government estimated the impact of the recovery plan on growth at 2.5 points in 2021. Under less favourable hypotheses (the rather slow rate of absorption of past European funds, complexity in management at the regional level, etc.), in January 2021 the Bank of Spain estimated the impact at between 1 and 1.6 points.

[5] According to the OECD, in 2018, the ratio between the average income of the richest 20% and the poorest 20% was 5.9 in Spain, compared to 4.6 in France.

[6] Thus, the tax increase on private educational and health institutions was rejected before it was even presented to the Congress of Deputies, and the tax increase on diesel (+3.8 cents per litre to 34.5 cents, compared to 40.07 on petrol) had to be abandoned. These measures were expected to bring in 967 and 500 million euros respectively.

[7] Using the cash concept, the revenue changes from 6.847 billion to 5.635 billion in 2021 and from 2.323 billion to 2.135 billion in 2022.

[8] This measure reflects a fairly marked retreat from the Pact's commitments. Indeed, the IRPP was expected to increase by 2 points on income > €130,000, by 4 points on income > €300,000, and by 4 points on savings income > €140,000. An increase of 1 point in the wealth tax was included for assets over €10 million.

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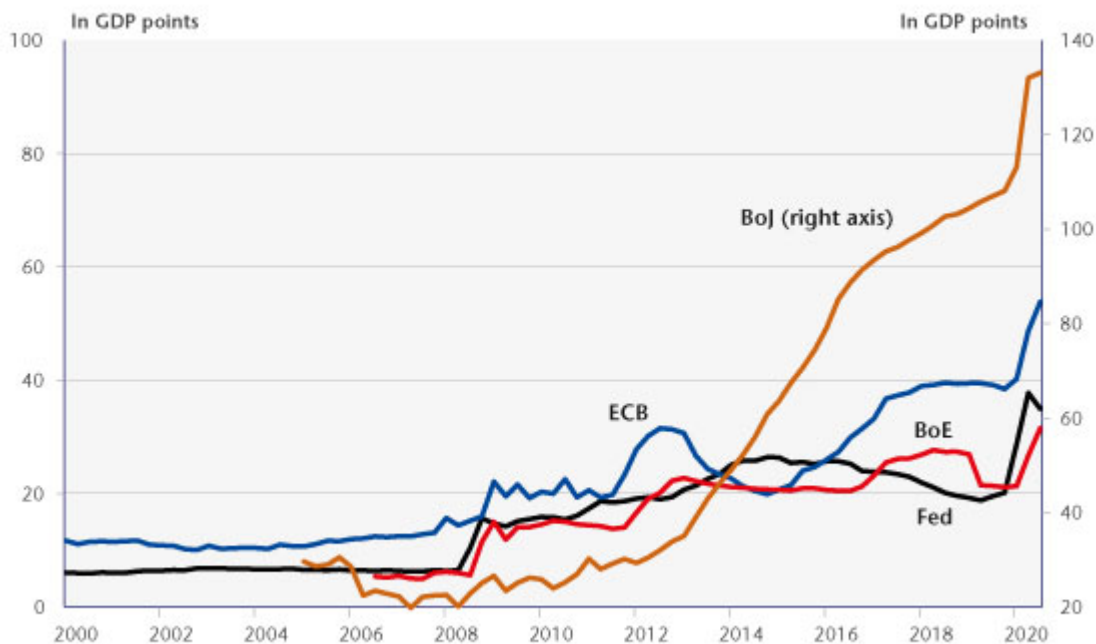
## Public debt: Central banks to the rescue?

By [Christophe Blot](#) and [Paul Hubert](#)

In response to the health and economic crisis, governments have implemented numerous emergency measures that have pushed public debt up steeply. They have nevertheless not experienced any

real difficulty in financing these massive new issues: despite record levels of public debt, the cost has fallen sharply (see [\*Plus ou moins de dette publique en France ?\*](#), by Xavier Ragot). This trend is the result of structural factors related to an abundance of savings globally and to strong demand for secure liquid assets, characteristics that are generally met by government securities. The trend is also related to the securities purchasing programmes of the central banks, which have been stepped up since the outbreak of the pandemic. For the year 2020 as a whole, the European Central Bank acquired nearly 800 billion euros worth of securities issued by the governments of the euro zone countries. In these circumstances, the central banks are holding an increasingly high fraction of the debt stock, leading to a de facto coordination of monetary and fiscal policies.

Figure 1. Size of central bank balance sheets

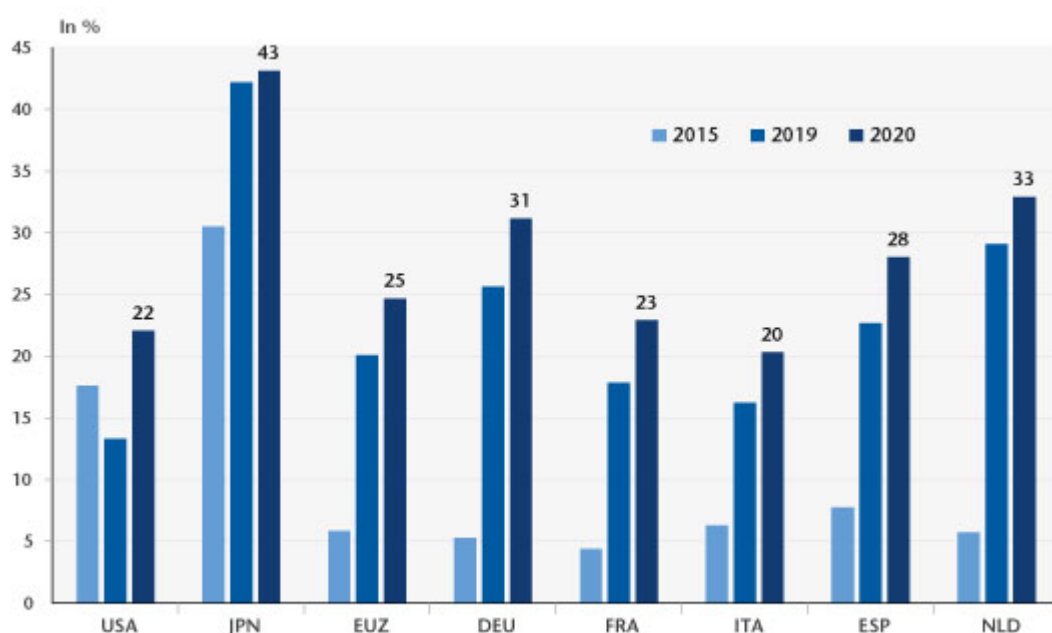


Source: Thomson Reuters Datastream.

Back in 2009, central banks launched asset purchase programmes to reinforce the expansionary impact of monetary policy in a context where the banks' key interest rates had reached a level close to 0% [1]. The stated objective was mainly to ease financing conditions by holding down long-term interest rates on the markets. This resulted in a sharp increase in the size of the banks' balance sheets, which now represents more than 53 GDP points in the euro zone and 35 points in the United States, with the record being held by the Bank of Japan, at 133 GDP points (Figure 1). These programmes, [financed by issuing reserves](#), have focused heavily on government securities, meaning that a large proportion of the stock of government debt is now held by central banks (Figure 2). This proportion reaches 43% in Japan, 22% in the United States and 25% in the euro zone. In the euro zone, in the absence of euro bonds, the distribution of securities purchases depends

on the share of each national central bank in the ECB's capital. The ECB's distribution key stipulates that the purchases are to be made pro rata to the share of the ECB's capital held by the national central banks [2]. Consequently, the purchases of securities are independent of the levels and trajectories of public debt. As the latter are heterogeneous, there are differences in the share of public debt held by the national central banks [3]. Thus, 31% of Germany's public debt is held by the Eurosystem compared to 20% of Italy's public debt.

Figure 2. Stock of public debt held by the central banks

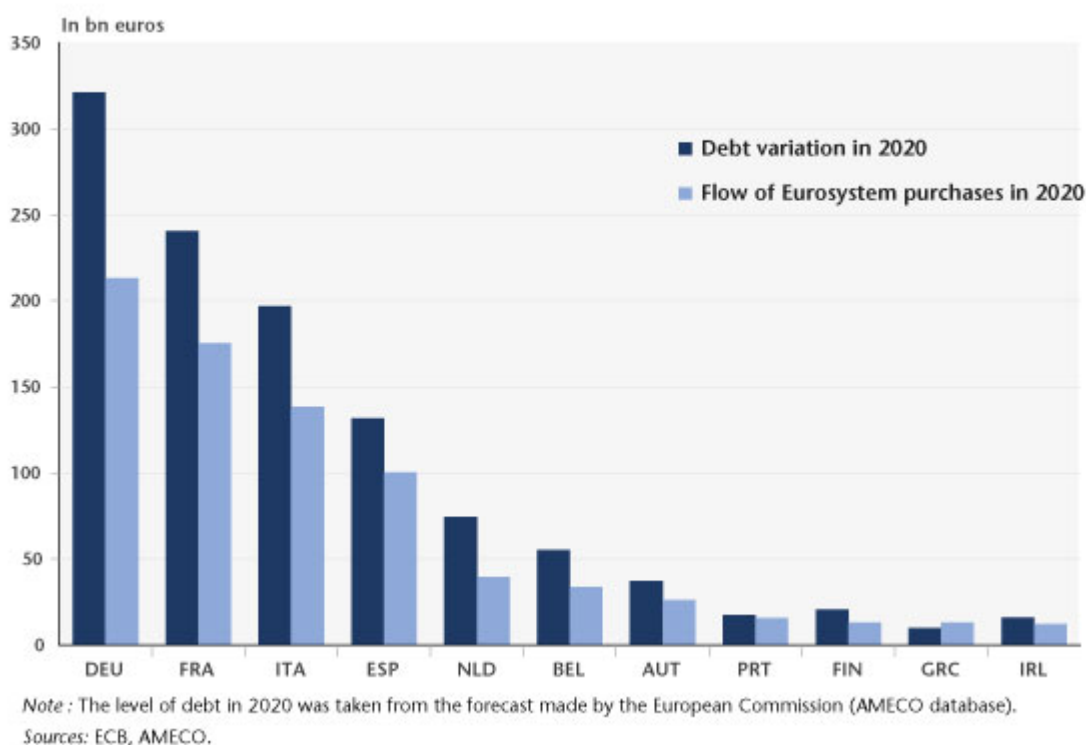


Note: The 2020 figures are calculated based on the data available in Q3 for the United States and in Q4 for Japan. In the euro zone, the level of debt in 2020 is taken from the forecast made by the European Commission (AMECO database).  
Sources: Federal Reserve (flow of funds), Eurostat, ECB, AMECO, Bank of Japan.

The decentralization of fiscal policies in the euro zone is also leading to tensions in the sovereign debt markets of some member countries, as seen between 2010 and 2012 and more recently in [March 2020](#). This is why Christine Lagarde has launched a new asset purchase programme called the Pandemic emergency purchase programme (PEPP). While the distribution key is not formally abolished, it may be applied more flexibly

in order to allow the ECB to reduce the sovereign spreads between member countries. Analysing the flows of securities purchases made by the euro zone central banks and the debt issues of the member states, it can be seen that the Eurosystem has absorbed on average 72% of the public debt issued in 2020, i.e. 830 billion euros out of the 1155 billion of additional public debt. The share amounts to 76% for Spain, 73% for France, 70% for Italy and 66% for Germany (Figure 3).

Figure 3. Flow of issues of public debt absorbed by the Eurosystem



Unlike purchases made under the APP programme, which aim to hit the inflation target, the PEPP's objective is first and foremost [to limit rate spreads](#), as Christine Lagarde reminded us on 16 July 2020. In fact, even if there is a structural downward trend in interest rates, some markets may be exposed to pressure. The euro zone countries are all the more exposed as investors can arbitrate between the different markets without incurring any exchange rate risks. This is why they may prefer German



securities to Italian securities, thereby undermining the homogeneous transmission of monetary policy within the euro zone. In addition to arguments about the risk of fragmentation, these operations also reflect a form of implicit coordination between the single monetary policy and fiscal policies, providing countries with the manoeuvring room needed to take the measures required to deal with the health and economic crisis. By declaring on 10 December that the allocation to the programme would increase to 1850 billion euros by no later than March 2022, the ECB sent a signal that it would maintain its support throughout the duration of the pandemic[\[4\]](#).

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[\[1\]](#) This policy, generally referred to as quantitative easing (QE), was launched in March 2009 by the Bank of England and the US Federal Reserve. Japan had already initiated this type of so-called unconventional measure between 2001 and 2006, and resumed this approach in October 2010. As for the ECB, the first purchases of securities targeted at certain countries in crisis were made from May 2010. But it was not until March 2015 that a QE programme comparable to those implemented by the other major central banks was developed.

[\[2\]](#) In practice, this share is relatively close to the weight of each member country's GDP in euro zone GDP.

[\[3\]](#) Securities purchasing operations are decentralized at the level of the national central banks. Doing this reduces risk-sharing within the Eurosystem since any losses would be borne by the national central banks, unlike assets held directly by the ECB, for which there is risk-sharing that depends on the share of each national central bank in the ECB's capital.

[\[4\]](#) The initial allocation was 750 billion euros, which was increased in June 2020 by a further 600 billion. As of 31 December 2020, securities purchases under the PEPP came to 650 billion.