The shortfall in European investment

Sébastien Bock, Aya Elewa, Sarah Guillou, Mauro Napoletano, Lionel Nesta, Evens Salies, Tania Treibich

Since Robert Solow's early work, we have known that long-term economic growth does not come from a larger capital stock or increased employment, but from technical progress, identified as the unobserved part of growth. This unobserved element – the Solow residual – explained 87% of US growth in the first half of the 20th century. Since then, theories of endogenous growth have shown that it is above all intangible investment, particularly investment in R&D or human capital, which, as a source of positive externalities, ensures long-term growth.

Information and communication technologies (ICT) have focused the attention of researchers and statisticians since the late 1990s. Although they have not always lived up to their promise of productivity gains – the Solow paradox – they are undeniably the lifeblood of all the technologies of the 21st century, and are the weapons of competitiveness for all sectors, especially digital services. Taking an interest in investment in these technologies is an essential part of any discussion of growth and living standards.

In this post, we focus on three types of investment, one tangible, and the other two intangible, which may be at the root of the European economic backwardness relative to the United States analysed in greater detail in our Policy brief " Documenting the widening transatlantic gap". We are looking at investment in ICT equipment (servers, routers, computers, etc.), investment in research and development (R&D), and

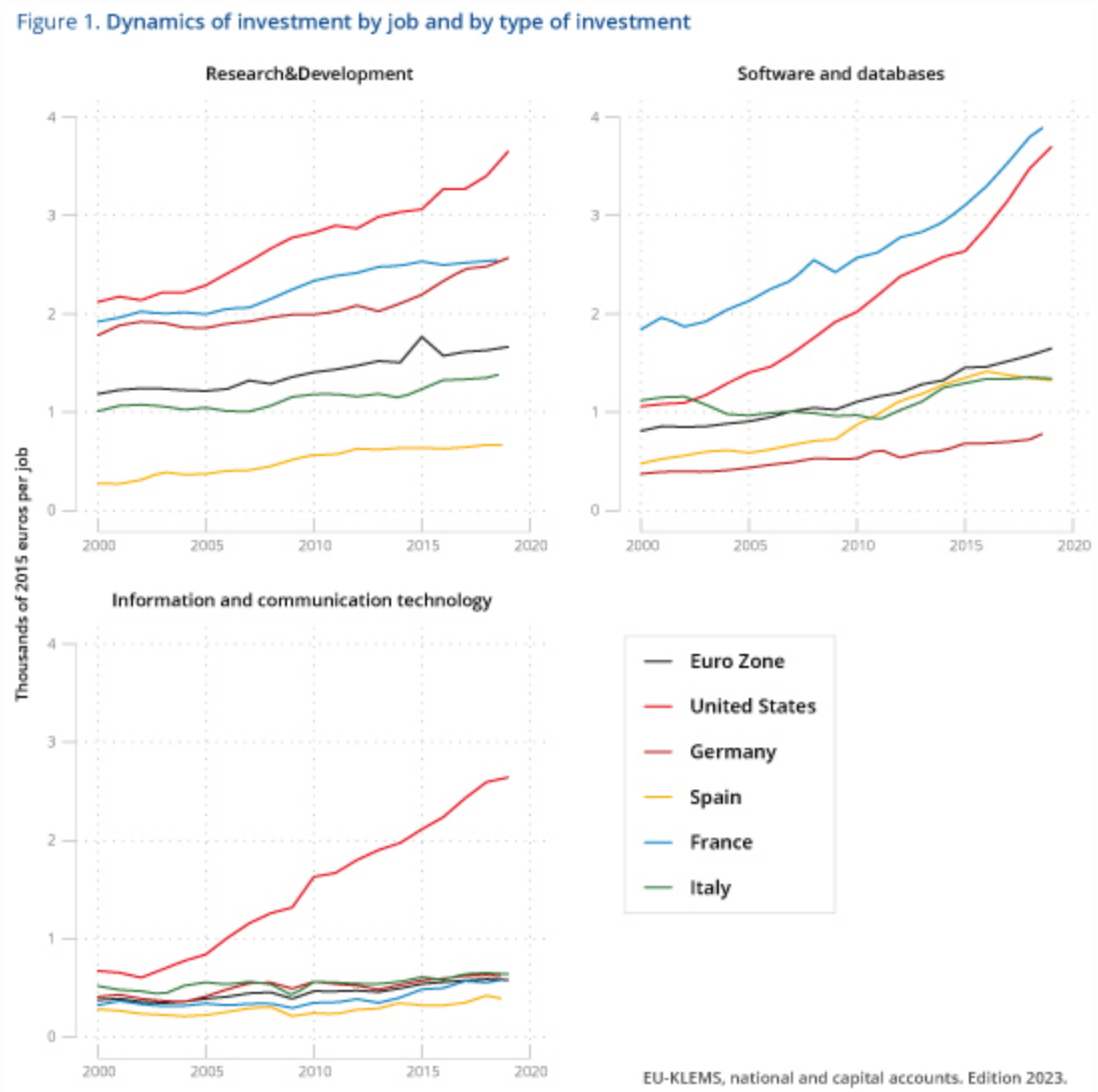
investment in ICT services such as software, programs and databases.[1] These three types of investment stand out from other tangible investments (in transport equipment, machinery, buildings, farmland) and intangible investments (in training, intellectual property, organisation) because of their particular dynamics, revealing a growing and sometimes spectacular lag between the eurozone and the United States.

Let's first look at the dynamics of investment.

Figure 1 shows investment per job for these three types of investment in the United States, the eurozone and the four major eurozone countries from 2000 and 2019. It appears that the investment effort in the United States is greater for each of them.

- In terms of R&D investment, the gap between the United States and the eurozone, which was already wide in the early 2000s, is widening in absolute terms (from €1,000 to €2,000 per job over the period) to represent more than twice the European effort in 2019. What we find most worrying is that this widening gap is the result of uniform behaviour on the part of the main European economies. For both Germany and France, this gap, which was rather small until 2005, is multiplied by 10 for France and by 5 for Germany at the end of the period.
- Concerning investment in software and databases, and leaving aside the French case[2] , there is no reason to be optimistic. The US-EZ gap in investment per job in software and databases has increased 12-fold, from €200 to €2,400 over the two decades. France stands out in terms of volume, but the trend is for French investment to double while US investment triples.
- Concerning investment in ICT equipment, the American singular achievement is even more impressive. Initially close to European levels, this investment is growing steadily in the United States, while remaining constant

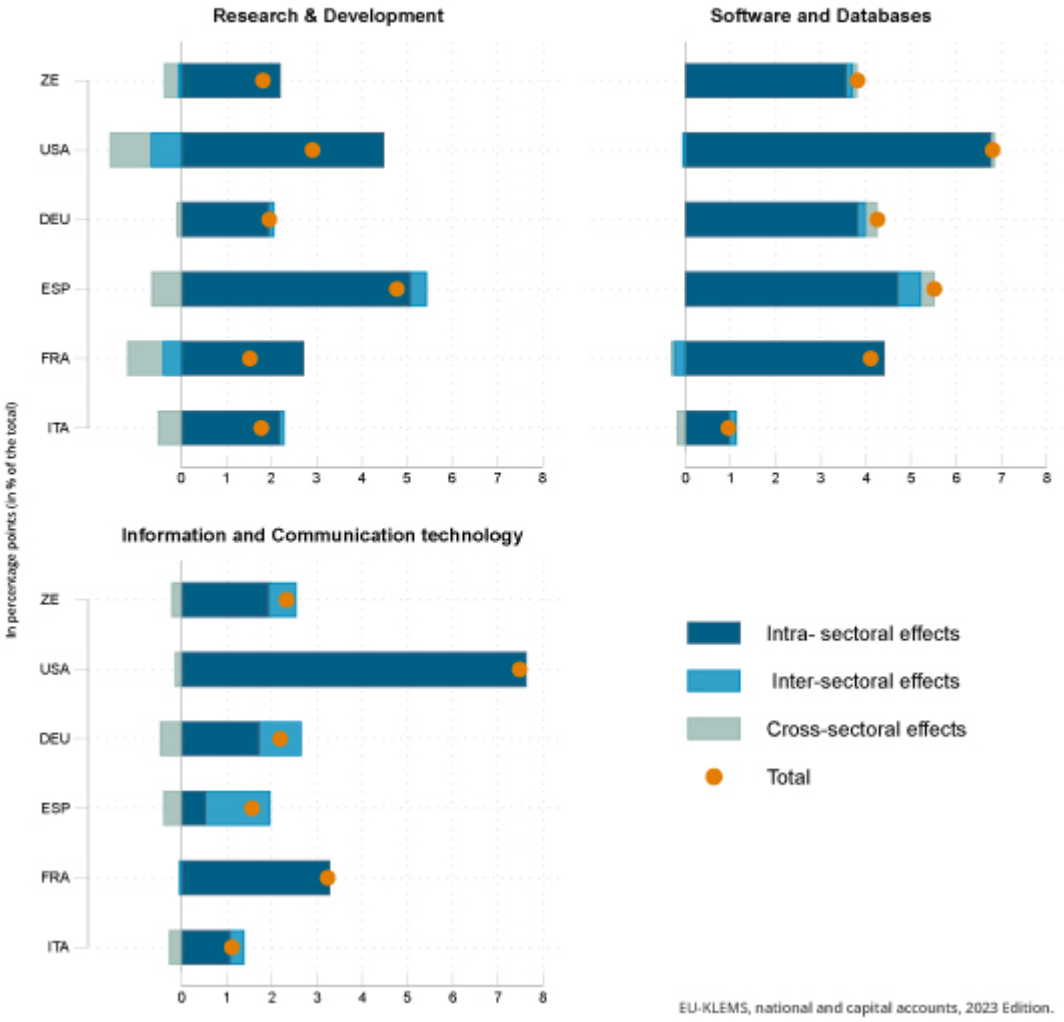
in the eurozone. The comparison is eloquent here, since investment per job remains at between 500 and 700 euros per year over the entire period in the eurozone, whereas it reaches 2,500 euros in the United States, a nearly five-fold increase over the period in question.



Overall, the private investment gap between the eurozone and the United States stood at around 150 billion euros in 2000, rising to over 600 billion euros in 2019. Where does this US vigour come from, and above all, how can we explain Europe's apathy? The first question we might ask is the role of the productive specialisation of economies. After all, if the sectors that are growing in the US are those that invest the most in R&D, software and ICT equipment, we should see greater composition effects in the US than in the eurozone. This would imply that the growth observed is not the result of American

behaviour that is increasingly inclined towards investment but is above all the result of an advantageous sectoral positioning for the United States. Let’s now decompose investment growth by distinguishing between intra- and inter-sectoral effects.

Figure 2. Intra- and inter-sectoral contributions to the average annual growth rate of investment per job (by type of investment, 2000-2019) (in % of the total)



By positing aggregate investment per job as the sum of investment per job in each sector weighted by the share of employment in those sectors, the growth rate of aggregate investment per job can be decomposed as the sum of intra-sectoral effects, inter-sector al effects and cross-sectoral effects over the period.

The first effect captures the source of change linked to the increase in investment (per job) taking place within each sector. This internal effect may be the result of companies

increasing their investment between 2000 and 2019, market share reallocations within sectors, or firms entering and leaving the market. The second effect, the cross-sectoral effect, is the result of structural change in economies, understood as changes in the sectoral structure of economies. The cross-sectoral effect is the combination of the first two effects.

Figure 2 presents the results of this decomposition, distinguishing between the effects within each sector and those between sectors. We can immediately see that it is the intra-sectoral effect that explains the growth in per capita investment, and this applies across all economies and all types of investment. In other words, the explanation that structural change is taking place in such a way as to favour growth in investment per job in the United States and not in Europe can be rejected. Not only are the sectoral structures of the economies not that far apart, but above all the investment growth is clearly the result of an investment intensification within sectors. We therefore need to understand the origin of the US-EZ investment gap as the result of investment behaviour that changes over time.

To reveal them, we use another decomposition, where the growth rate of investment per job is the result of the growth rate of investment minus the growth rate of employment. Next, we decompose the investment growth rate as the sum of the sectoral growth rates, weighted by each sector’s share of total investment, at the start of the period. We classify all the sectors that make up the market economy by type of sector as follows: (i) high-tech industries (excluding ICT production); (ii) ICT production industries; (iii) other industries, agriculture, water, gas, electricity, construction; (iv) high-value-added services (excluding ICT services); (v) ICT services; (vi) other services. This classification seems relevant to us because it distinguishes ICT production activities (whether manufactured or services)

from other sectors that use ICTs as inputs in their production.

Figure 3 shows the results by type of investment. Let's look first at R&D investment. The case of Spain may seem surprising in terms of the growth observed, but this is above all the result of a catch-up effect. Indeed, as figure 1 shows, it is in Spain that investment per job is the lowest throughout the period under consideration. This growth is essentially driven by high value-added services and 'low-tech' industries. In the other countries, growth in investment per job is mainly driven by high-tech industries. This is particularly true of the eurozone in general, and Germany and Italy in particular. The differential between the US and European growth rates (excluding Spain) is mainly the result of major investment by the ICT services sectors. Here we see above all the famous GAFAMs.[3] The exploitation of gigantic databases combined with the rise of artificial intelligence – and the impressive possibilities it offers – are prompting the GAFAMs to invest massively in R&D in order to make the most of these new technologies.

Growth in investment in databases and software is mainly due to the services sector in general, whatever the country. What distinguishes the US from other countries is the significant contribution made by high value-added services. This suggests that ICTs are spreading more rapidly throughout the economic activities in the United States than in Europe. Italy stands out for its low growth rate, with services making virtually no contribution to the growth of this investment. The case of Spain is, once again, the expression of a catch-up effect, as shown in Figure 1.

Finally, the US-EZ comparison of the sources of growth in investment in ICT equipment is particularly enlightening. Over and above the difference in growth rates, we note that the contribution of the sectors is relatively similar between the two regions of the world, except for ICT services. In the eurozone, the contribution of ICT services to growth in investment in ICT equipment remains low, whereas in the United States it is 4.5 percentage points, which alone explains the difference observed. Our interpretation is that the specific dynamics of investment in ICT equipment observed in Figure 1 is the result of massive investment by ICT services, i.e. essentially by GAFAMs and sisters (Intel, Nvidia…). In other words, intangible investment in R&D and software/databases is evolving in tandem with tangible investment in ICTs, which complements it and makes it operational or even productive.

Three results to remember :

1. The investment effort in the United States is greater than in the eurozone for the three types of investment considered: R&D, ICT equipment and ICT services (software and databases).
    a. The gap between the United States and the eurozone is widening for all types of investment.
    b. In 2019, investment in ICT equipment per job will be five times higher in the United States than in the eurozone.

2. It is the intra-sectoral effect that explains the growth in investment per job, in all economies, and for all types of investment.
    a. The gap between the United States and the eurozone is therefore not because of changes in specialisation (over the last 20 years), but rather to changes within sectors.
    b. The origin of the investment gap the contribution of ICT services to growth in investment in ICT equipment is the result of investment behaviour that changes over time.

3. There are significant differences between countries in terms of sectoral contributions to growth in investment per job.
    a. In the eurozone, growth in R&D investment is being driven mainly by high-tech industries. In the United States, it is mainly ICT services that are driving this growth;
    b. What distinguishes the United States from other countries is the significant contribution of high value-added services to the growth in investment in databases and software;
    c. The difference in investment in ICT equipment is

mainly due to investment by the services sector.

It is as if, in the United States, the ICT services sector – including the five American giants – was responsible for the observed differential, with its heavy investment in R&D and digital equipment. The other service sectors (essentially high value-added services) are integrating these innovations into their production processes by investing in software and databases. The US case thus offers a high degree of coherence through the complementarity between sectors that produce and sectors that use ICT services. The overall impression is one of rapid digitisation of the economy, driven by GAFAMs and spreading to the entire US production base.

The European case does not offer the same picture, and is worrying for two reasons. Firstly, the lack of investment in ICT services means that the economy is digitised more slowly. Secondly, the absence of a leading company in the field of digital services limits investment in R&D and digital equipment. With the future promises of artificial intelligence and quantum computing, there is every reason to believe that, without the combination of upstream sectors supplying ICT services and equipment and downstream sectors adopting these innovations, Europe will find it more difficult to capture the fruits of the announced digitisation of the economy.

The challenge is therefore immense. Catching up would mean increasing private investment[4] in Europe by €630 billion a year (or more than 5% of the eurozone's GDP), for the assets considered here alone (ICTs, R&D, software and databases), and assuming that US investment remains constant. This is equivalent to an increase in investment of €61 billion for France, €57 billion for Germany, €28 billion for Italy and €16 billion for Spain. But this is not just a quantitative problem, far from it. Without a radical change in the investment behaviour of public and private players, and

institutional innovation in European governance[5] , this paradox is likely to persist in Europe, which, by remaining anchored in the productions of the 20th century, is clearly at risk of technological decline.

---

[1] It should be remembered that these investments may result from in-house production or be purchased from external suppliers.

[2] Guillou and Mini have highlighted the enigmatic French peculiarity in software and databases, which persists despite the differences in accounting between countries. See "A la recherche de l'immatériel : comprendre l'investissement de l'industrie française", La Fabrique de l'industrie (2019).

[3] As a reminder, the GAFAMs are : Google (now Alphabet), Amazon, Facebook (Meta), Apple and Microsoft.

[4] The private sector corresponds to sectors with NACE codes from A to N.

[5] On this point, see the recent report by Fuest, D. Gros, P.-L. Mengel, G. Presidente and J. Tirole, "EU Innovation Policy: How to escape the middle technology trap", April 2024, A Report by the European Policy Analysis group.

Why – and how – to make Next Generation EU (NGEU)

sustainable

Frédéric Allemand, **Jérôme Creel**, **Nicolas Leron**, **Sandrine Levasseur** and **Francesco Saraceno**

The Next Generation EU (NGEU) instrument was created during the pandemic to finance the recovery and, above all, to ensure the resilience of the European Union (EU). Since then, with the war in Ukraine and its various consequences, the shocks hitting the EU continue to accumulate, in a context where it is also necessary to accelerate the ecological transition and the digitalization of the economy. Russia's invasion of Ukraine has put defence matters back on the front burner, while inflation is giving rise to heterogeneous reactions from member states, which is not conducive to economic convergence, not to mention the monetary tightening that is destabilizing some banks. The Biden administration's subsidies to US industry have all the hallmarks of a new episode in the trade war, to which the European Commission has responded by temporarily relaxing the rules on state aid. In this uncertain environment, where one shock is following another, the idea of making the NGEU instrument permanent instead of temporary has gained ground. European Commissioner P. Gentiloni, for example, mentioned the idea as early as 2021; it was raised at a conference of the Official Monetary and Financial Institutions Forum in 2022; it appeared at the conclusion of an article by Schramm and de Witte, published in the *Journal of Common Market Studies* in 2022; and it was mentioned publicly by Christine Lagarde in 2022. There is, however, little consensus on this issue, especially in Germany, where, after the Constitutional Court's decision in favour of the NGEU on 6 December 2022, the Minister of Finance, Christian Lindner, reminded us that the issuance of common debt (at the heart of the NGEU) must remain an "exception". As the debate remains open, in a recent study for the Foundation for European Progressive Studies (FEPS), we assessed the economic

and political relevance that the implementation of a permanent NGEU-type instrument would entail, as well as the technical and legal difficulties involved.

The implementation of the NGEU has already raised delicate questions of coordination between member states regarding the allocation of funds to the Commission's various structural priorities (how much to the ecological transition? how much to digitalization?) and between the countries themselves, since the question of a "fair return" never fails to resurface in the course of negotiations. Adding to these coordination difficulties, the first part of our study raises the question of the *democratic legitimacy* of EU policies when supranational priorities limit the autonomy of national parliaments, starting with fiscal policy, the "material heart" of democracy. The problem of democratic accountability is not new if one considers that supranational rules, such as the Stability and Growth Pact, impose limits on the power of parliaments to "tax and spend". In fact, the intrinsic logic of coordination is to force political power to conform to functional (macroeconomic) imperatives, which inevitably leads to a form of depoliticization of fiscal and budget policy. The perpetuation of the NGEU must therefore be seen as an opportunity to remedy the depoliticization of EU policies and to move towards a "political Europe" by establishing a supranational level for the implementation of a European fiscal policy.

This part of the study also reminds us that while the implementation of the NGEU has been of paramount importance in stimulating a post-pandemic recovery, the economic results are still uncertain since the funds were allocated only relatively recently[1]. It also reveals a change in the mindset of EU policymakers. For the first time, joint borrowing and some risk-sharing have become features of a European fiscal plan.

It would be wrong, however, at this stage to see the NGEU as a "Hamiltonian" moment or as the founding act of a federal Europe: the NGEU is limited in scope and duration; it does not take over the past debts of the member states; and it has not created a common spending (investment) capacity. And this is perhaps both its main weakness and its main area for improvement. The pandemic and the strong economic response to it by European states have indicated that they can share common, crucial goals: recovery, resilience, the ecological transition and digitalization. What is missing, however, is a central fiscal capacity to better link the long-term challenges with an instrument adapted to this kind of horizon. Hence the idea of making the NGEU permanent.

As a preamble to a possible long-term establishment of the NGEU, another part of the study raises the issue of determining the main task of a permanent central budgetary instrument. One obvious answer is the provision and financing of European public goods (broadly defined to include the areas of security and environmental protection) that member states may not provide in sufficient quantity, due to a lack of resources and/or externalities. Regarding the provision of public goods, it should be recalled that the preferences of EU citizens are fairly homogeneous within the Union, and that there is a growing demand for some needs to be met at the EU level. For example, 86% of EU citizens are in favour of making investments in renewable energy *at the EU level*. Even the production of military equipment by the EU is increasingly supported by citizens, with 69% "agreeing or strongly agreeing". The provision of public goods at the EU rather than the national level would also allow for very tangible economies of scale, for example in the field of infrastructure. Last but not least, this would be justified by the instrument's capacity to "make Europe" through concrete actions and strengthen the feeling of being European. Any debate on a central budgetary capacity would of course have to be conducted in parallel with that on the reform of the

Stability and Growth Pact in order to guarantee the creation of a fiscal space (or additional margins of manoeuvre) in the EU.

The study then points out that there are few options for creating a central budgetary capacity within the current institutional framework. The treaties define a budgetary framework (centred on the multi-annual financial framework, the MFF) for the EU that ties spending to the ability to raise funds, thus severely limiting the ability to raise debt in normal times. The creation of special financial instruments and the decision to spend beyond the MFF ceilings are explicitly linked to exceptional circumstances and cannot be a solution for the recurrent provision of public goods. The 0.6 percentage point increase in the own resources ceiling to 2 percent of GNI **[2]** ensured that the unprecedented level of borrowing respected the constitutional principle of a balanced budget.

However, this increase was approved only because of its exceptional and temporary nature, as the ceiling on own resources for payments is to be reduced to 1.40 percent of GNI once the funds are repaid and the commitments cease to exist. Even if permanent funding were to be allocated to the NGEU instrument, its capacity to intervene would remain limited. In accordance with its legal basis (Article 122 TFEU), the NGEU is a tool for crisis management whose activation is linked to the occurrence or risk of exceptional circumstances. As a matter of principle, European legislation prohibits the EU from using funds borrowed on the capital markets to finance operational expenditure.

The study examines other legal arrangements that could contribute to the financing of public goods, but whatever legal basis is chosen, (a) the EU does not have a general multi-purpose financial instrument that it could activate, in addition to the general budget, to finance actions and projects over the long term; and (b) the EU cannot grant funds

to finance actions outside its area of competence, i.e., it cannot substitute itself for member states in areas where the latter retain competence for their policies. Therefore, if a central budgetary capacity is to be created, it would be necessary to revise the treaties or establish new intergovernmental arrangements (along the lines of the European Stability Mechanism).

Based on the second option, the study proposes that a European public investment agency be created as a first step towards the creation of a central budgetary capacity. This agency would have the function of planning and implementing investment projects, in cooperation with the member states. Under EU legislation, the agency would not have full control over policy choices but would act mainly within the limits set by the roadmaps of the EU institutions. Nevertheless, it would have the administrative capacity to design public investment projects that the Commission currently lacks, and it could be given control over allocating grants, developing technical guidelines, monitoring cross-compliance, etc.

The last part of the study reminds us, nonetheless, that even substantial progress in developing a central budget capacity should not obscure the need for national budget policies to be implemented as well, and that close coordination between them is needed. While increasing powers are being transferred to the European level in the area of public goods, as can be seen for example with the European Green Pact and with the targeting of NGEU spending towards greening and digitalization, there is still a need to coordinate national governments' policies with each other and with the policies implemented at the central level. Policy coordination, which necessarily limits the autonomy of national parliaments, raises the question of the democratic legitimacy of EU policies and may lead to a form of depoliticization of fiscal policy. This would become even more problematic if the EU were to transfer to the supranational level some of the decisions

about which public goods to provide and from whom to finance them. To avoid delinking the strengthening of European macroeconomic policy on public goods with the democratic dimension of this orientation, nothing less than a quantum leap in the creation of a political Europe, with two democratic levels, is probably needed, with genuine *European democracy* —- because it would be based on a real European parliamentary fiscal power, which would in turn be linked to the preferences of the European electorate —- but fully *articulated with the national democracies* with their recovered fiscal margins.

---

[1] The inconsistency between the need to revive the European economy after the pandemic and a very gradual disbursement of funds is discussed by Creel (2020).

[2] GNI: Gross national income, defined as GDP plus net income received from abroad for the compensation of employees, property, and net taxes and subsidies on production.

How will US fiscal policy affect pressure on prices?

by Elliot Aurissergues, Christophe Blot and Caroline Bozou

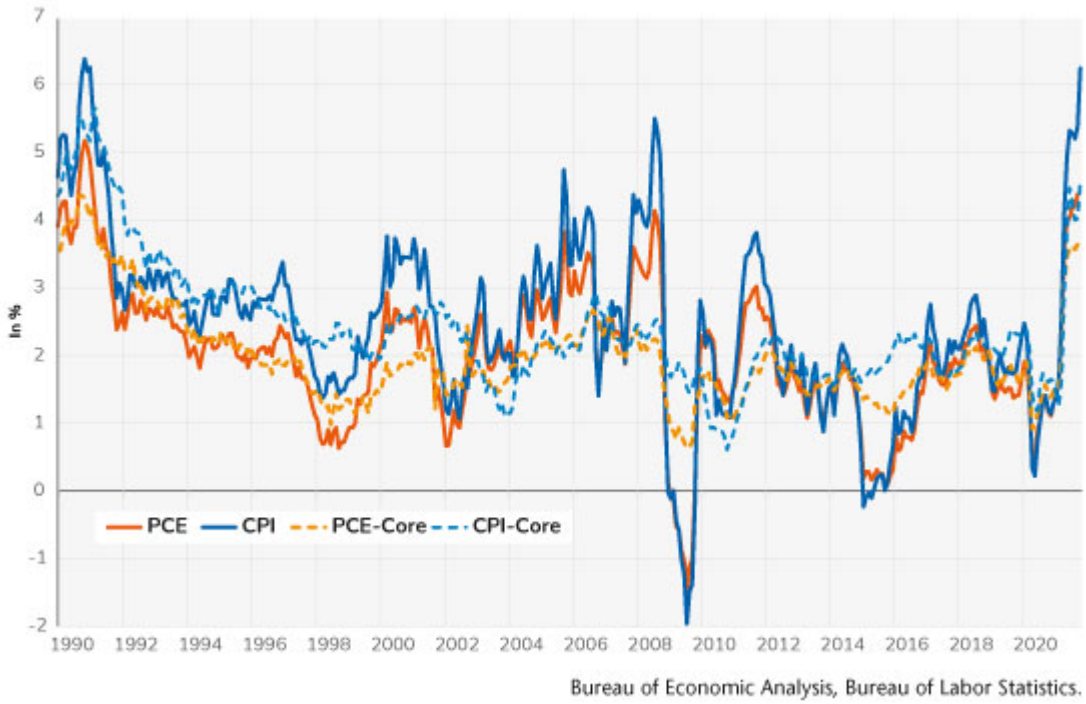
The latest inflation figures for the United States confirm the trends seen over the last few months. In October 2021, consumer prices rose by 6.2% year-on-year. While rising prices is a global phenomenon, among the industrialized countries this has been particularly marked

in the US. Inflation in the euro zone over the same period was 4.1%. This level of increase in inflation has not been seen since the late 1990s, so it is attracting considerable attention in the US policy debate, not least because it echoes a controversy that began early in Joe Biden's mandate over the fiscal stimulus passed in March 2021. Although inflation is being driven in part by rising energy prices, the fact remains that tensions have rapidly increased. Excluding energy and food components, inflation has exceeded 4% since June 2021, suggesting a risk of overheating for the US economy. While the European macroeconomic context does not allow us to identify an equivalent risk for the euro zone, the fact remains that a sustained rise in US inflation could have repercussions for the zone. Beyond the impact on competitiveness, the dynamics of US inflation could influence decisions on rate changes and the conduct of monetary policy by the Federal Reserve and the European Central Bank.

Regardless of the indicator – consumer price index or consumption deflator – prices have clearly accelerated since March 2021 (**see the figure**)[1]. The energy component is undoubtedly important, but it does not fully explain this dynamic, since the latest figures for the underlying indices, i.e. adjusted for energy and food prices,

show a
year-on-year increase of 4.6% for the CPI and 3.6% for the consumption deflator[2]. Note too that this development reflects a
catch-up from 2020, when inflation was particularly moderate in the context of
the pandemic and the sudden halt in activity. Thus, on average over 2020 and
2021, up to October, the consumption deflator has risen by 2.1%, in line with
the target adopted by the Federal Reserve[3]. The recent tensions obviously reflect the
dynamics of the post-lockdown global economic recovery, which the United States
is clearly part of, and which has led to strong pressure on energy prices, but
also on supplies, as evidenced by the supply difficulties for certain goods and
the soaring cost of maritime freight.

Figure 1. **Inflation in the United States**



Bureau of Economic Analysis, Bureau of Labor Statistics.

Beyond these global factors, there is the question
of an inflationary phenomenon that may be intrinsically linked to US economic

policy. Even before the recent discussions on the 2022 budget vote, the measures taken to deal with the Covid crisis first by the Trump administration and then by the Biden administration amount to a grand total of USD 5.2 trillion, representing more than 23 points of GDP for the year 2019. This spending over 2020 and 2021 represents an unprecedented level of stimulus over the last forty years. While there was undoubtedly a consensus on the need for the measures proposed by Biden and approved by Congress in March 2021, their magnitude nevertheless caused a great deal of debate, as the recovery was already underway and the economy was already benefiting, as it still is today, from the fiscal support measures voted in 2020 and from a highly expansionary monetary policy[4]. Could this expansionary economic policy – both fiscal and monetary – be causing the economy to overheat, fuelling the return of inflation, as economists such as Lawrence Summers and Olivier Blanchard fear, or, on the contrary, is the effect on inflation being overestimated, as other analyses suggest? We plunge into this debate in an *OFCE Policy Brief*, specifying in particular the conditions that could lead to a sustainable increase in inflation. The risk will depend on the size of the multipliers measuring the effect of the stimulus plans on activity and unemployment, the position of the US economy relative to its potential, and

changes in inflation expectations, all of which are subject to some uncertainty.

---

[1] The consumer price index (CPI) is calculated from a survey of the prices of a basket of average goods consumed by a representative household. The consumption deflator is derived from the national accounts and represents the price system that allows the transition from consumption in value to consumption in volume. See La désinflation importée [Imported Deflation] in *OFCE Review*, 2019, No. 162, for more details on the difference between these two measures of inflation.

[2] Unadjusted for energy and food prices, the consumption deflator rose by 4.4%. The data for the deflator refer to the month of September, while the publication of the consumer price indices is more rapid, the latest figures published being those for October.

[3] The consumer price deflator is the indicator used by the Federal Reserve to assess price stability in the United States.

[4] Two other projects were then announced: an infrastructure investment plan (*American Jobs Plan*) and a household package (*American Families Plan*). These are not crisis-specific measures, but measures that are supposed to mark the direction of fiscal policy over the next eight years. These plans are currently being discussed in Congress as part of the 2022 budget vote.

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.

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.

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

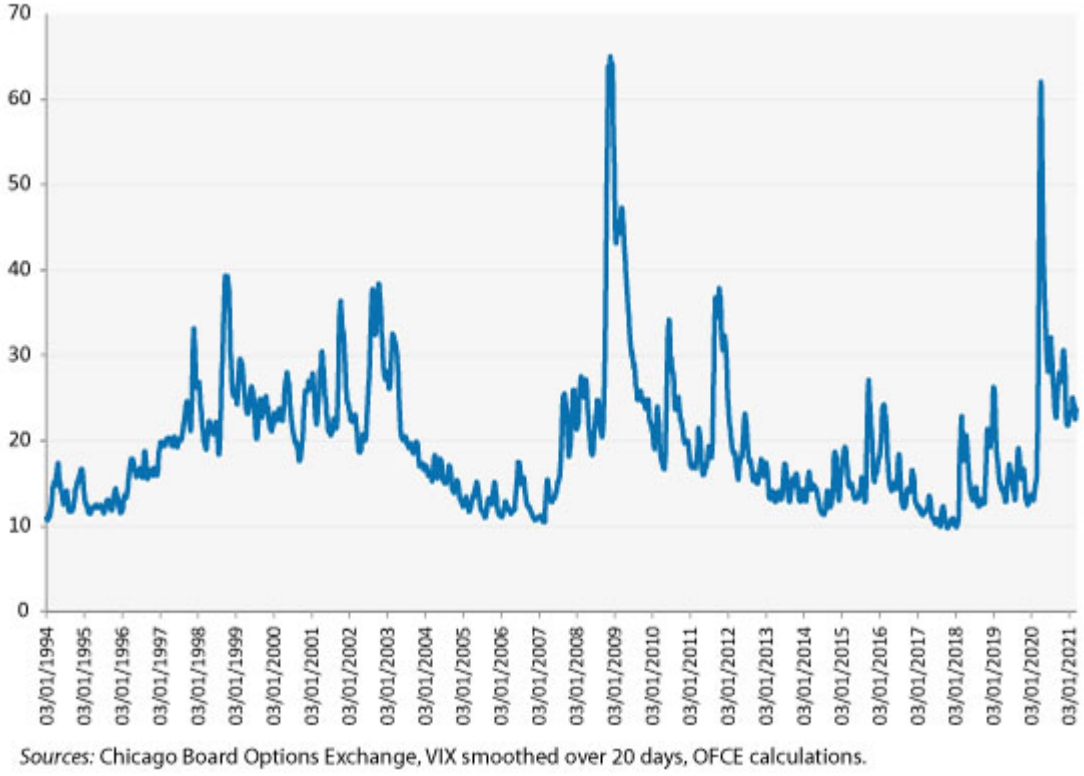
by their losses in 2020, companies may seek to restore or even increase their
margins, which could result in numerous restructurings and job losses. Economic
recovery could take place faster if business has real visibility beyond 2021. While
it is difficult for the current government to make strong commitments, 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

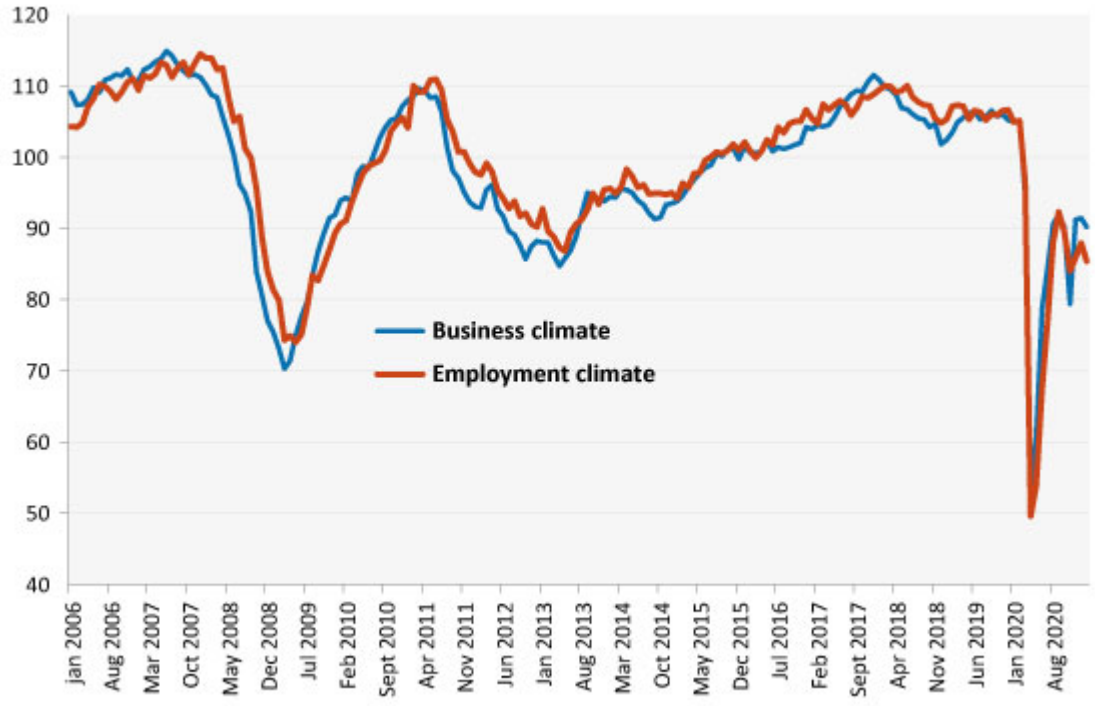
savings. Some indicators reflect this still high uncertainty. The VIX index, which captures market expectations for the volatility of US stock prices, remains twice as high as before the crisis and is comparable to the levels reached during the Dotcomcrisis (see Figure 1). In France, the business and 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].

Bibliography

Bachmann R., S. Elstner and E. Sims, 2013, "Uncertainty and Economic Activity: Evidence from Business Survey Data", *AEJ macroeconomics*, https://www.aeaweb.org/articles?id=10.1257/mac.5.2.217

Belianska A., A. Eyquem and C. Poilly, 2021, "The Transmission Channels of Government Spending Uncertainty", *working paper*, https://halshs.archives-ouvertes.fr/halshs-03160370

Bloom N., 2009, "The impact of uncertainty shocks", *Econometrica*, https://onlinelibrary.wiley.com/doi/abs/10.3982/ECTA6248

Dauvin M. and R. Sampognaro, 2021, "Behind the Scenes of Containment: Modelling Simultaneous Supply and Demand Shocks", *OFCE working papers*, https://www.ofce.sciences-po.fr/pdf/dtravail/OFCEWP2021-05.pdf

Fernandez-Villaverde J. and P. Guerron-Quintana, 2011, "Risk Matters: The Real Effects of Volatility Shocks", *American Economic Review*, https://www.aeaweb.org/articles?id=10.1257/aer.101.6.2530

Fernandez-Villaverde J. and P. Guerron-Quintana, 2015, "Fiscal volatility shocks and economic activity", *American Economic Review*, https://www.aeaweb.org/articles?id=10.1257/aer.20121236

Guerini M., L. Nesta, X. Ragot and S. Schiavo, 2020, "Firm liquidity and solvency under the Covid-19 lockdown in France", *OFCE policy brief*, https://www.ofce.sciences-po.fr/pdf/pbrief/2020/OFCEpbrief76.pdf

Heyer E., 2020,

“Défaillances d’entreprises et destructions d’emplois: une estimation de
la relation sur données macro-sectorielles”, *Revue de l’OFCE*, https://www.ofce.sciences-po.fr/pdf/revue/7-168OFCE.pdf

---

[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 x 480 x 4 or 196 billion euros. The EBITDA tax would under the
same assumptions yield 0.05 x 420 x 8 + 0.05 x 196 (5% of the subsidy will be
recovered viathe 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.

Europe/US: How has fiscal policy supported income?

By Christophe Blot, Magali Dauvin and Raul Sampognaro

The sharp fall in activity and its brutal social consequences have led governments and central banks to enact ambitious support measures to cushion the shock, which resulted in an unprecedented global recession in the first half of 2020, as discussed in Policy Brief 78 . Faced with a health crisis that is unprecedented in contemporary history, requiring forced shutdowns to curb the spread of the virus, governments have taken urgent measures to prevent the onset of an uncontrolled crisis that could permanently alter the economic trajectory. Three main types of measures have been taken: some aim to maintain consumer purchasing power in the face of the shutdowns; others seek to preserve the production system by targeting business; and some are specific to the health

sector. The quarterly national accounts, available at the end of the first half of the year, provide an update on the extent to which the disposable income of private agents has been preserved by fiscal policy at this stage of the Covid-19 crisis [2].

Fiscal policy has shot up Americans' household income and preserved Europeans' income

In the major advanced economies, the Covid-19 crisis generated losses in primary income (before cash transfers) ranging from 81 billion pounds in the United Kingdom to 458 billion dollars in the United States (Table 1). The initial income shock was thus larger in Spain and Italy – 6.5 and 6.7 GDP points respectively – and smaller in Germany (3.4 GDP points) and the United States (2.1 GDP points).

Table 1. Initial estimation of the fall during the first six months of 2020 of total primary income related to the Covid-19 crisis

	ITA	ESP	FRA	GBR	DEU	USA
In billions	-120 €	-81 €	-114 €	-81 £	-116 €	-458 $
In 2019 GDP pts	-6.7	-6.5	-4.7	-3.7	-3.4	-2.1

Note: At the end of the first six months of 2020, the Covid-19 crisis had led to a loss of 81 bn euros in primary income for the Spanish economy relative to the half-year 2019 average, corresponding to a loss of 6.5 GDP points.
Sources: National accounts, OFCE calculations.

Figure 1 breaks down the share of the primary income (PI) shock received by agents (first bar on the left for each country, labelled "PI"). In Spain and Italy, households suffered the majority of the losses, accounting for 54 percent and 60 percent, respectively, of the total income loss for the economy. In France and Germany, enterprises bore the lion's share of the income loss (48%). In the United Kingdom and the United States, enterprises incurred losses of £50 billion and

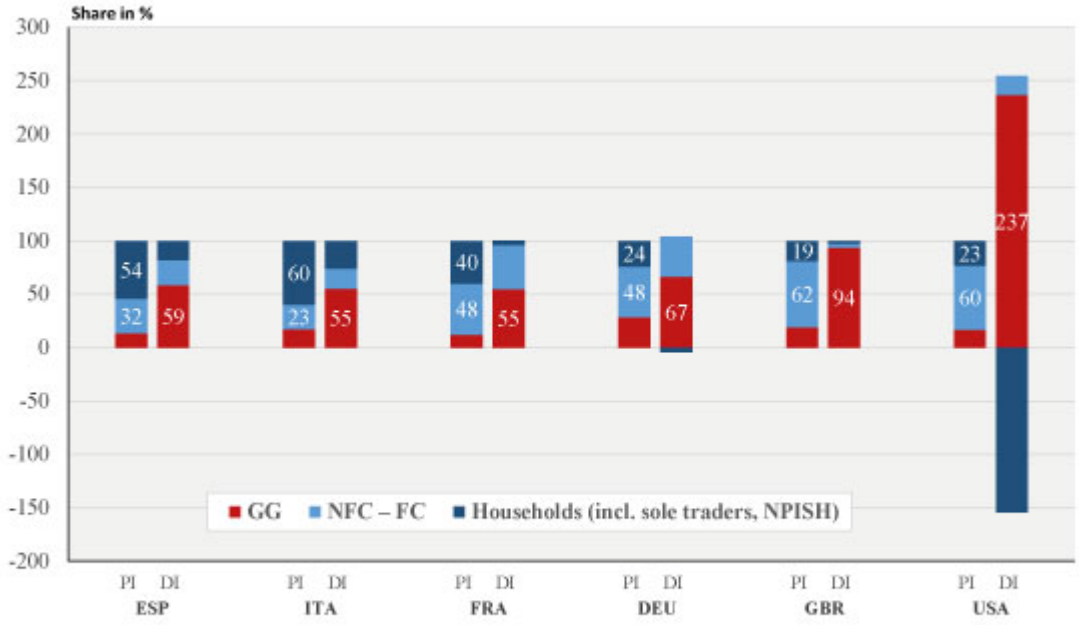
$275 billion, respectively, accounting for 62% and 60% of the total loss for the economy. General government (GG) experienced a smaller shock in all the countries, which is explained by the spontaneous changes in some of the automatic stabilizers, and by a relatively lower value added due to the restrictions on activity during lockdowns.

Turning to the breakdown in losses in disposable income (DI), which takes into account cash transfers, social contributions, and income tax, the story is rather different. The implementation of emergency measures made it possible to absorb some of these losses, as illustrated by the bar labelled “DI” in Figure 1. The introduction of short-time working in European countries thus shifted the burden of wages from enterprises to the government, thus preserving household incomes and avoiding the termination of job contracts. Similarly, reductions in social contributions and tax on income and corporate profits have shifted the cost of the crisis from private agents to government. In the face of the unforeseeable shock, the State has thus played the role of insurer of last resort of private agent income, although to different extents in different countries. Thus, while Spain’s government absorbed 13.5 percent of the primary income shock, support measures raised this share to 59 percent, a higher level than that of Italy (55.3 percent) and France (54.3 percent) in terms of disposable income. In comparison, the measures taken by the German government absorbed a higher share of the shock,

amounting to 67 percent of the loss of disposable income, compared with 28 percent of the fall in primary income.

In the United Kingdom, emergency measures absorbed the entirety of the shock. While business and households suffered primary income losses of £50 billion and £15 billion respectively, their disposable income fell by only £4 billion and £2 billion. As for disposable income, government absorbed 93.6 percent of the shock. The contrast is even more marked in Germany and the United States, where measures overcompensated the initial primary income shock, especially for households. The US figures are particularly impressive. Over the six-month period, primary income fell by $192 billion, while household disposable income rose by $576 billion, due in particular to the payment of a tax credit and an exceptional federal unemployment benefit of $600 per week that was paid to the unemployed, regardless of their initial income[3]. The various tax measures and subsidies to business reduced the loss by $210 billion. The US government thus absorbed 237 per cent of the shock, reflecting the magnitude of the support measures taken in March-April.

Figure 1. Share of the Covid-19 shock absorbed by each agent in the national accounts



PI : Primary Income; **DI** : Disposable Income.
Note: The share of losses in primary income resulting from the Covid-19 crisis in Italy suffered by private agents came to 83% (60% + 23%). Support from General Government, by compensating more than half of the losses in disposable income (55%) made it possible to ease the losses of households and business (100 – 55 = 45%).
Sources: National accounts, OFCE calculations.

Job losses and uncertainty about the future may hamper recovery across the Atlantic

As we have seen, fiscal policy has been mobilized massively across the Atlantic. Even if at this stage the macroeconomic shock has been weaker in the US than in the EU[4], the fiscal impulse is much larger. At the end of the first half-year, total transfers to households exceeded the immediate shock to their primary income. This has led to a 13% increase in the disposable income of US households, at the same time as their primary income fell by 4% in connection with job destruction. This situation is due in particular to a tax credit paid to households and an additional lump-sum allowance of $600 per week paid by the federal government to any person eligible for unemployment. Between Q4 of 2019 and Q2 of 2020, transfers to households leapt by 80%, now

representing 31%
of disposable income compared with 19% in 2019.

This difference in crisis management is undoubtedly
explained by the weakness of the social safety net in the United States, which
effectively reduces the role of automatic stabilizers while also limiting the
ability of citizens with little or no health insurance coverage to meet health
care expenses in the event of a fall in income. The use of counter-cyclical
measures is thus of greater importance, which probably explains why the
stimulus packages are more extensive than they were during the 2008-2009 crisis
as well as why the measures provide direct, substantial support to household
income. Moreover, in the US, the federal government is responsible for this
stimulus, while in the EU, the bulk of the support plans come from the Member states.

The sharp rise in unemployment across the Atlantic
– which peaked at 14.7% in April – contrasts with the situation in Europe,
partly due to the differentiated strategy in economic policy.
The United States carried out a positive, substantial
transfer of income to households to offset the fall in wages resulting from job
losses, which also helped to mitigate the shock on business margins.
Conversely, in the main European economies, contractual employment
relationships were maintained, but household incomes were not preserved quite
as much – they actually fell slightly, except in Germany. In

the main European economies, a decision was taken to use short-time working on a massive scale, while in the United States the response was to send cheques directly and immediately to households.

This situation, where income was propped up during a period when consumption was curtailed by the closure of non-essential shops, led to the accumulation of 76 billion euros in “Covid savings” in Germany (8 GDI points), 62 billion in France (9 GDI points) and 38 billion in Spain and Italy (10 and 6 GDI points respectively). In the United Kingdom and the United States, “Covid savings” were even greater: £89 billion in the UK (12 GDI points), while the sum reached $961 billion in the US (12 GDI points). How the epidemic develops and how these savings are used will be the two keys determining the extent of the rebound in activity starting in the second half of 2020.

This is precisely the moment when differences in approach can create divergences in economic trajectories. While it could be said that up to now household situations have been better preserved across the Atlantic, job contracts have been shredded. In this context, it may take some time to get the workforce back into employment, hindering the rapid redeployment of the production base. This could slow down the speed at which activity

returns to normal, helping to keep job losses up and limiting the restoration of company balance sheets. Furthermore, negotiations between Democrats and Republicans in Congress have hit the wall of the approaching November 3 elections. If the measures taken during the crisis are not – at least partially – renewed, the situation of American households is likely to become more critical, since weak US social safety nets will not be able to mitigate what threatens to be a long-term shock. This may have second-round effects on primary income and investment [5]. Following the elections, further measures are likely to be taken, but the time lag could be long, especially if Joe Biden wins, as he will have to wait until he takes office in January 2021. Continued high uncertainty about the extent of the recovery – accentuated by political uncertainty – may encourage American households to avoid spending "Covid savings" in order to have "precautionary savings" to face a probable long-term health, economic and social crisis.

Glossary

Primary income (PI): Primary income includes revenue directly related to participation in the production process. The bulk of primary household income consists of wages, salaries and property income.

Gross disposable income (GDI): Income available to agents to consume or invest,

after redistribution operations. This includes primary income plus social cash
benefits and minus social contributions and taxes paid.

* * *

---

[1] See "Evaluation de la pandémie de Covid-19 sur l'économie mondiale" [Evaluation
of the Covid-19 pandemic on the world economy], *Revue de l'OFCE* no. 166 for
an initial analysis of the various fiscal and monetary support measures
implemented.

[2] These results should be taken with a grain of
salt. While the quarterly national accounts are the most comprehensive,
consistent framework available, with data collected by official statistics
institutes, they are nevertheless provisional. These accounts are subject to
significant revisions that may significantly alter the final results when they
incorporate new data (company balance sheets, etc.); they are considered final
within two years.

[3] This allowance is in addition to that paid by
State-run unemployment insurance systems.

[4] The loss in 6-month GDP was 5% in the US,
compared with 8.3% in the EU.

[5] F. Buera, R. Fattal-Jaef, H. Hopenhayn, A.
Neumeyer, and J. Shin (2020), "The Economic Ripple Effects of COVID-19", *Working Paper*.

What more could the central banks do to deal with the crisis?

By Christophe Blot and Paul Hubert

The return of new lockdown measures in numerous countries is expected to slow the pace of economic recovery and even lead to another downturn in activity towards the end of the year. To address this risk, governments are announcing new support measures that in some cases supplement the stimulus plans enacted in the autumn. No additional monetary policy measures have yet been announced. But with rates close to or at 0% and with a massive bond purchase policy, one wonders whether the central banks still have any manoeuvring room. In practice, they could continue QE programmes and increase the volume of asset purchases. But other options are also conceivable, such as monetizing the public debt.

With the Covid-19 crisis, the central banks – the Federal Reserve, the Bank of England and the ECB – have resumed or amplified their quantitative easing (QE) policy, to such an extent that

some are viewing this as a de facto monetization of debt. In a recent *Policy Brief*, we argue that QE cannot strictly be considered as the monetization of public debt, in particular because the purchases of securities are not matched by the issuance of money but by the issuance of excess reserves. These are distinct from the currency in circulation in the economy, since they can be used only within the banking system and are subject to an interest rate (the deposit facility rate in the case of the euro zone), unlike currency in circulation.

Our analysis therefore makes it possible to look again at the characteristics of QE and to specify the conditions for monetizing debt. It should result in (1) a saving of interest paid by the government, (2) the creation of money, (3) being permanent (or sustainable), and (4) reflect an implicit change in the objective of the central banks or their inflation target. The implementation of such a strategy is therefore an option available to central banks and would allow the financing of expansionary fiscal policies.
The government, in return for a package of fiscal measures – transfers to households or health care spending, support for businesses – would issue a zero-coupon perpetual bond, purchased by commercial banks, which would credit the account of the agents targeted by the support measures. The debt would have no repayment or interest payment obligations and would then be

acquired by the central bank and retained on its balance sheet.

Monetization would probably be more effective than QE in stabilizing nominal growth. It would reduce the risk to financial stability caused by QE, whose effect depends on its transmission to asset prices, which could create asset-price bubbles or induce private agents to take on excessive debt.
Monetization has often been put off because of fears that it would lead to higher inflation. In the current environment, expansionary fiscal policy is needed to sustain activity and to prepare for recovery once the pandemic is under control. A pick-up in the pace of inflation would also satisfy the central banks, and insufficient demand should greatly reduce the risk of an out-of-control inflationary spiral. Monetization requires stronger coordination with fiscal policy, which makes it more difficult to implement in the euro area.

It seems like it's raining billions

Jérôme Creel, Xavier Ragot, and Francesco Saraceno

The second meeting of the Eurogroup did the trick. The Ministers of Finance, after

having once again laid out their divisions on the issue of solidarity between euro area Member States on Tuesday 7 April 2020, reached an agreement two days later on a fiscal support plan that can be put in place fairly quickly. The health measures taken by the Member States to limit the spread of the Covid-19 pandemic will enjoy better short-term financing, which is good news. The additions to Europe's tools for dealing with the crisis will be on the order of 500 billion euros – this is certainly not negligible, and note that this comes on top of the efforts already put in place by governments – but this corresponds mainly to a new accumulation of debt by the Member States. The net gain for each of them, as we shall see, is actually quite marginal.

The Eurogroup will propose the creation of a credit line (Pandemic Crisis Support) specifically dedicated to the management of the Covid-19 crisis within the framework of the European Stability Mechanism (ESM), without strict conditionality (meaning that recourse to the credit line will not imply any control on the part of the EMS over the future management of the Member State's public finances). The creation of the credit line was inspired by the proposal by Bénassy-Quéré et al. (2020), the advantages and disadvantages of which

we presented to the Eurogroup meeting on 9 April 2020. The amount allocated to this credit line represents around 2% of the GDP of each euro area Member State, or nearly 240 billion euros (in 2019 GDP).

The lending mechanism proposed by the European Commission to supplement the partial unemployment programmes of the Member States – it goes under the name of SURE – will clearly see the light of day and will be endowed with 100 billion euros. For the record, the three main beneficiaries of SURE cannot receive a combined total of more than 60 billion euros in loans.

Finally, the European Investment Bank (EIB) will grant an additional 200 billion euros, mainly to small and medium-sized enterprises in the EU Member States. In total, the euro area countries will have 480 billion euros in additional financing capacity.

Table 1 below presents a breakdown by country of the amounts in play. As part of the 240 billion euros of Pandemic Crisis Support, Germany will be able to benefit from a borrowing capacity of nearly 70 billion euros, France nearly 50 billion euros, and Italy and Spain 35 and 25 billion euros respectively. These amounts correspond to 2% of the 2019 GDP of each country. At this point, there is no indication of whether the Member States will draw on this capacity. The

advantage in doing so depends crucially on the difference between the interest rate at which they can finance their health and economic expenses without using the EMS and the interest rate on loans made by the EMS. The financing cost without going through the EMS is the interest rate on the country's public debt. The cost of financing through Pandemic Crisis Support is the interest rate at which this credit line is itself financed, that is to say, at the lowest rate on the market, i.e. the German rate. So it is obvious that Germany has no interest in using this credit line. Of the 240 billion euros allocated to Pandemic Crisis Support, the 70 billion euros for Germany is thus useless. For countries other than Germany, the use of Pandemic Crisis Support depends on the difference between their interest rate and Germany's rate, the infamous spread. If the spread is positive, using the EMS effectively reduces the cost of borrowing. But as shown in Table 1, the gain enabled by Pandemic Crisis Support is rather low. For Greece, whose spread vis-à-vis Germany is the highest in the euro zone, the gain would come to around 0.04% of GDP in 2019, i.e. a 215 basis point spread multiplied by the amount allocated to Greece for Pandemic Crisis Support (3.8 billion euros, which corresponds to 2% of its GDP of 2019), all relative to its 2019 GDP. For Italy, the gain is on the same order: 0.04% of its GDP. Expressed in euros, Italy stands to gain 700 million euros. For France,

whose spread
vis-à-vis Germany is much lower than that of Italy, the gain could be 200
million euros, or 0.01% of its GDP in 2019.

Assuming that the amounts allocated by the EIB are prorated to the country’s size (measured by its GDP in 2019), and that Spain, Italy and France benefit from 20 billion euros each under SURE, the total interest rate savings would reach, respectively, 680 million, 1.5 billion and 430 million euros (0.05%, 0.08% and 0.02% of GDP). At a time when it seems to be raining billions, these are not big savings. Unless you think of it as a metaphor. Like rain before it falls, the billions of euros are not really euros before they fall.

Table 1. Distribution of amounts allocated as part of Pandemic Crisis Support (PCS), and each country's potential gains, including from the use of additional EIB and SURE financing

	Max amount of PCS	10-year spreads	Max. gain from use of PCS and other additional financing				
			PCS	EIB*	SURE**	Total	Total
	Billion euros	Base points	Million euros				% of GDP
Germany	68,5	0	0	0	0	0	0
Austria	8	43	34,3	20,9	5,8	61,0	0,02
Belgium	9,4	52	49,1	30,0	8,3	8,8	0,02
Cyprus	0,4	204	9,0	5,5	1,5	16,0	0,07
Spain	24,8	113	280,7	171,3	226,0	678,0	0,05
Estonia	0,6	nd	nd	nd	nd	nd	nd
Finland	4,8	40	19,3	11,8	3,2	34,3	0,01
France	48,3	44	212,6	129,8	88,0	430,4	0,02
Greece	3,8	215	81,5	49,7	13,7	145,0	0,08
Ireland	6,9	55	38,0	23,2	6,4	67,5	0,02
Italy	35,5	195	693,1	423,1	390,0	1506,2	0,08
Latvia	0,6	nd	nd	nd	nd	nd	nd
Lithuania	1,0	nd	nd	nd	nd	nd	nd
Luxembourg	1,3	nd	nd	nd	nd	nd	nd
Malta	0,3	90	2,4	1,5	0,4	4,2	0,03
Netherlands	16,1	26	41,9	25,6	7,1	74,6	0,01
Portugal	4,2	124	52,3	31,9	8,8	93,0	0,04
Slovakia	1,9	77	14,5	8,9	2,4	25,9	0,03
Slovenia	1,0	107	10,3	6,3	1,7	18,3	0,04

* Assuming that the use of additional EIB financing is fully distributed in proportion to the country's relative GDP compared to that of the EU (in 2019).
** Assuming that Italy, Spain and France obtain 20 billion euros each and that the remaining 40 billion euros are distributed in proportion to the relative GDP of the countries compared to that of the euro zone (in 2019).
Sources: Ameco (PIB 2019), Financial Times (Spreads, 10 April 2020).

What do the fiscal stimulus strategies in the United

States and Europe reveal?

By Christophe Blot and Xavier Timbeau

In parallel with the decisions taken by the US Federal Reserve and the European Central Bank (ECB), governments are stepping up announcements of stimulus packages to try to cushion the economic impact of the Covid-19 health crisis, which has triggered a recession on an unprecedented scale and pace. The confinement of the population and the closure of non-essential businesses is leading to a reduction in hours worked and in consumption and investment, combining a supply shock and demand shock.

The responses to the crisis in both the US and Europe are unfolding over time, but the choices already made on either side of the Atlantic have lessons about their ideologies, the fundamental characteristics of their economies and the functioning of their institutions.

Federal budget: whether or not to have one

After several days of negotiations between Democrats and Republicans, the US Congress approved a plan to support the economy worth 2,000 billion dollars (9.3 points of GDP) [1]. It provides, in particular, for transfers to households, loans to SMEs and measures to support sectors in difficulty in the form of deadline extensions. On the other side of the pond, the European Commission has proposed the creation of a 37-billion euro fund as part of an investment initiative. The EU will also reallocate one billion euros "as a guarantee to the European Investment Fund to incentivise banks to provide liquidity to SMEs and midcaps" [2]. EU-wide, these sums represent 0.2 percentage point of GDP, which may seem all the more derisory since this does not involve allocating

additional funds but rather reallocating funds within the budget.

These major differences point out in the first place that, by construction, the European budget is limited, and that it is not set up to respond to an economic slowdown affecting all the Member States. Within the EU, fiscal prerogatives are the responsibility of the Member States, as are the main sovereign instruments for responding to a crisis.

It is the national budgets that are used to prop up economic activity. So turning to these and bringing together announcements made at the level of the EU's five largest countries, the total sum allocated exceeds 430 billion euros (3.3% of GDP), to which must be added guarantees, which could come to more than 2,700 billion euros, or more than 20 points of EU GDP [3]. The measures taken by the US and by European countries are thus on a comparable order of magnitude and are distinguished by the level at which they are taken as well as by the way in which the sums are allocated. In the United States, the federal budget represents 33% of GDP, which makes it possible to carry out a common, centralized action that benefits all households and businesses, based on decisions approved by Congress, in a way that implicitly ensures stabilization between the different States. In practice, the taxes paid by households and businesses in the States hit hardest will fall relatively, and these same States will also be able to benefit more from certain federal measures. Moreover, the US Congress can vote a deficit budget, which can be used to implement intertemporal stabilization measures [4].

In contrast, the EU does not have the capacity to go into debt, whereas the Member States can. Their stabilization capacity can be constrained by the difficulty of self-financing, which initially leads to a rise in interest rates or subsequently to the drying up of markets. The different Member States are not on an equal footing in the markets, due to their macroeconomic situation or to the level of their

debt, as in the case of Italy. But beyond these differences, the main issue is that savers, through the financial markets, can make trade-offs between the debts of different countries within a legal space (the EU) that guarantees the free movement of capital, so interest rate movements can amplify small macroeconomic differences and fuel self-actuating dynamics. The 2012 sovereign debt crisis showed that a contagion by sovereign rates, which, after Greece, sucked Italy and Spain into a whirlpool of doubt in the financial markets, could lead to substantial transfers from countries in difficulty to countries considered virtuous. The counterpart of the trade-off was the lowering of rates for Germany and France. These transfers can amount to several points of GDP, a level that is creating a risk of the break-up of the euro zone: it might be preferable to end the free movement of capital, so as to capture national savings to finance the public debt (and therefore monetize the public deficit) rather than letting the debt load soar and having to submit to a humiliating recovery plan in exchange for European aid.

The surge in Italian sovereign rates, prior to the clarification by the ECB's announcement, then logically enough relaunched the debate about the possibility of issuing euro-bonds (called "corona-bonds"), which would make it possible to pool part of the budgetary expenditures of the euro zone States so as to avoid this wholly unjustified spiral of trade-offs between sovereign debts, whose impact could be sufficient to lead to the break-up of the euro zone.

As long as these common debt securities are not set up or the ECB is reluctant to intervene to buy back this or that European public debt, the role of Europe's institutions will be on another scale. First of all, what is needed is to promote the coordination of decisions taken by the Member States and to encourage governments to take strong measures to avoid stowaways who expect to benefit from measures taken by their neighbours [5]. These effects are likely to be limited,

however, and it is hard to imagine that a country will not take the steps necessary to directly help households and businesses cope with the shock.

More than coordination, it is essential to soften the fiscal rules announced and in force in order to give the Member States the manoeuvring room they need by invoking the exceptional circumstances clause. Furthermore, beyond a short-term response, it is important that the crisis does not provide an opportunity to exert pressure for greater fiscal discipline. The legitimacy of the Member States in the crisis and the relevance of their responses will be closely scrutinized after the crisis. The EU must not engage in an untimely debate that could lead only to compromising its political legitimacy definitively.

Since there is no tool for pooling debt, the ECB plays a crucial role in maintaining a low level of interest rates for all the States of the Union, both today and tomorrow.

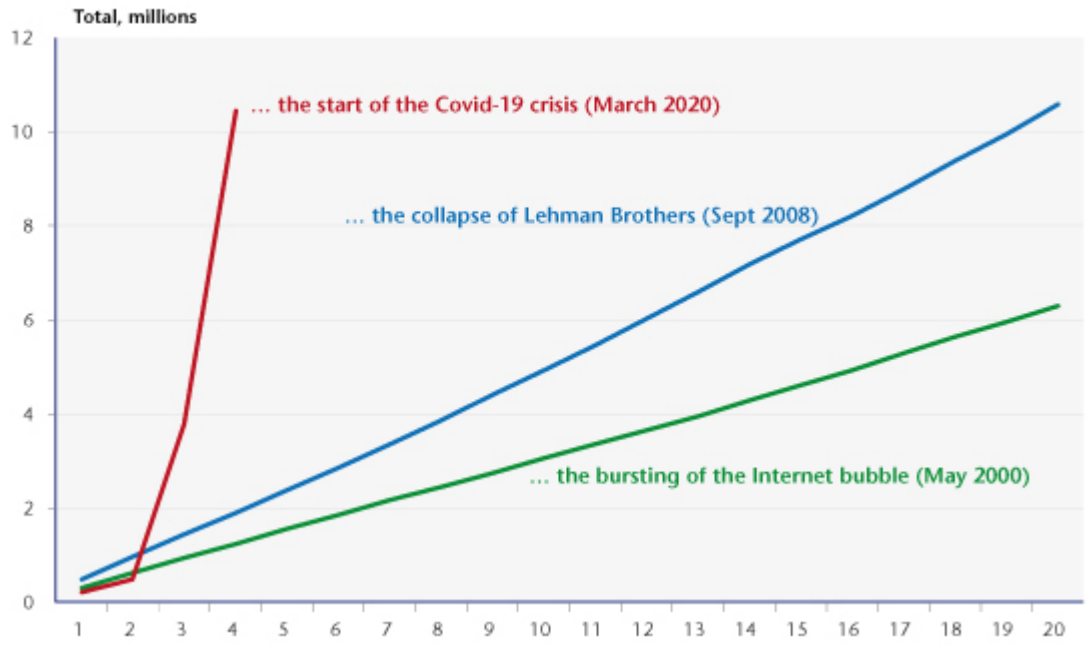
Adapting plans to the way the labour market function

Beyond the sums committed and the institutional level at which decisions are taken, the content of the respective plans is a reminder that the labour markets function very differently on the two sides of the Atlantic. The euro zone Member States have favoured the use of short-time working, or partial unemployment, which keeps workers employed and socializes the loss of income at source. The productive fabric is preserved because there is no breach of the employment contract, and the States offer, based on existing mechanisms, partially to make up lost wages in order to maintain consumer purchasing power. These mechanisms, already in wide use in Germany and Italy, have recently been expanded in France and developed in Spain. This approach should provide better conditions for the economy to re-start once the recession is over, since companies will already have a workforce, thus avoiding the costs of recruitment and training.

In the United States, these mechanisms are not widespread, and the American labour market is very flexible. Notice times for dismissing employees are very short, so that companies can quickly adjust their demand for work. The drop-off in activity will quickly translate into a higher unemployment rate, as is indicated by the initial increases recorded by the federal employment agency (see the figure). In two weeks, the cumulative number of registered unemployed exceeded 10 million, much more than what was observed after the bankruptcy of Lehman Brothers in September 2008 or following the burst of the Internet bubble in 2000. Furthermore, the duration of unemployment benefits, set at the State level [6], is generally shorter, which quickly puts households at risk of a loss of income. This is why a large part of the measures enacted in the aid plan approved by Congress provide for direct support to households through transfers or tax cuts, based on their income level. The measures also provide for the extension of benefit periods and additional assistance to laid-off workers, which may be added to the benefits received under standard unemployment insurance. But rather than directly targeting those losing their jobs, these are broad spectrum measures. A vigorous recovery plan will no doubt be necessary after the health crisis. But here, too, the windfall effects will consume a large part of the stimulus, and it will be very expensive to get the economy back on its pre-crisis footing.

As the November elections approach, these choices also probably explain why Donald Trump sometimes seems reluctant to prolong the confinement of Americans, arguing that the economic crisis could do more damage than the health crisis [7]. But by letting the virus spread, the number of people infected with a serious illness risks exploding and exposing the United States to a major health crisis. It is not certain that the US President’s record will prove to be more favourable, or the US strategy more effective, whether in terms of health or economics.

Figure. Weekly registrations for unemployment benefits in the US after ...



Source: U.S. Employment and Training Administration.

[1] This plan builds on previous measures, whose value totalled just over USD 100 billion. This includes all measures for households and businesses (loans and liquidity support).

[2] See https://ec.europa.eu/commission/presscorner/detail/en/IP_20_459

[3] It should also be noted that certain measures were taken based on an assumed duration of confinement, and that these could therefore be recalibrated depending on how the situation evolves.

[4] The vast majority of States, however, have deficit or debt constraints. Faced with the scale of the crisis, some of them are also freeing up spending which can therefore be adjusted to the federal support plan.

[5] If country A decides to increase its spending, country B can hope to partially benefit by the increase induced in

country A's imports from B, particularly if B is small compared to A.

[6] The US unemployment insurance system is specific to each of the States. The federal government plays its role in managing the costs of the system as a whole. See Stéphane Auray and David L. Fuller (2015): "L'assurance chômage aux Etats-Unis".

[7] See here for an analysis of the economic and health risks.