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Could the Euro Area Benefit From the US Stimulus Packages?

Policy Department for Economic, Scientific and Quality of Life Policies
Directorate-General for Internal Policies
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Abstract

The recent US fiscal packages have raised some concerns on their magnitude, but also their spillovers to the euro area economy. After discussing US fiscal measures and reviewing the literature on international spillovers, we show that the US policy mix may have rather positive macroeconomic effects on the euro area. We conclude though that these effects need to be balanced against growing financial risks.

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LIST OF ABBREVIATIONS

ARPA	American Rescue Plan Act
BLS	Bureau of Labor Statistics
CARES	Coronavirus Aid, Relief, and Economic Security Act
DSGE	Dynamic stochastic general equilibrium
ECB	European Central Bank
EP	European Parliament
EU	European Union
FOMC	Federal Open Market Committee
GDP	Gross domestic product
MBS	Mortgage-backed securities
NAWN	New Area-Wide Model
OECD	Organisation for Economic Co-operation and Development
PCE	Personnal consumption expenditures
QE	Quantitative easing
SME	Small and medium-sized enterprise
US	United States
VAR	Vector autoregression
ZLB	Zero lower bound

EXECUTIVE SUMMARY

- **The pandemic has led governments and central banks to implement expansionary fiscal and monetary policies all over the world and quite substantially so in the United States (US).** One would expect some international spillover effects from the US policies in the euro area.
- **Expansionary monetary policy is generally viewed as a beggar-thy-neighbour policy since a cut in the US interest rate is expected to lead to a depreciation of the US dollar**. However, the literature shows that the exchange rate channel may be dominated by a financial channel and by the increase of demand stemming from the US economy, both generating positive spillovers.
- **International spillovers from fiscal policy are expected to be positive as well**. However, their magnitude will depend on the exchange rate reaction.
- **In this paper, simulations from a large-scale macroeconomic model and the empirical analysis confirm the positive effects of an expansionary monetary policy in the US on the euro area GDP.** However, there is uncertainty concerning the timing and the length of these positive spillovers.
- **As for fiscal policy, empirical evidence suggests positive spillovers from the US measures implemented since the outbreak of the COVID-19 crisis**, at least in the short term (over the first two years). Considering the size of the fiscal impulse, these spillovers are not negligible.
- **The global spillover effects of US macroeconomic policies are consequently expected to be positive**. There is more uncertainty beyond 2022.
- **However, one should keep in mind that the euro area will first benefit from its own policy mix.** Consequently, it should not only rely on US policies to consolidate and accelerate the recovery. The contrasted fiscal impulses in 2020 and 2021 between the US and the euro already point to a **risk of growing divergence between the two regions**.
- **We also discuss briefly that the main spillover effects from the US may not stem from macroeconomic policies but from financial risks**. Asset prices have sharply increased in 2020 raising concerns about a risk of a financial bubble, at least in the US. This risk may have a profound impact on the euro area at the mid- to long-term horizon.

1. INTRODUCTION

The pandemic has led governments and central banks all over the world to implement expansionary fiscal and monetary policies. This unprecedented shock called for strong policy responses whatever their cost. This has been the case, quite substantially, in the United States (US). The fiscal response to the crisis has been further strengthened soon after Joe Biden was appointed President. There was consensus on the need for a new package of measures, but its magnitude has sparked a debate and renewed the fear of a return of inflation. Beyond the effect of these policy decisions on the US economy, one may also expect some international spillover effects on the euro area, not only because of the size of the US economy but also because of the sizable cumulative fiscal impulse, which amounts to almost 10 percentage points of the potential GDP.

Expansionary monetary policy is generally viewed as a beggar-thy-neighbour policy since a cut in the US interest rate is expected to lead to a depreciation of the US dollar, i.e. an appreciation of local currencies, e.g. the euro. However, when the shock stems from a large country like the US, there is more uncertainty since the exchange rate channel may be dominated by a financial channel – positive capital flows towards the US reduce financing conditions elsewhere – and by the increase of demand stemming from the US economy. Turning to fiscal policy, international spillovers are expected to be positive according to a standard textbook model. However, their magnitude will depend on the exchange rate regime and on the exchange rate reaction. A few puzzles have emerged from the empirical literature where fiscal stimuli have been shown to produce a currency depreciation, and not an appreciation.

In this paper, simulations from a large-scale macroeconomic model and the empirical analysis confirm the positive effects of an expansionary monetary policy in the US on the euro area GDP. There is, however, uncertainty concerning the timing and the length of these positive spillovers. They would last almost 4 years according to model's simulations while empirical evidence suggests a short-term positive effect or a delayed positive effect. Regarding fiscal policy, while the effects are ambiguous according to the theoretical literature and model's simulations, empirical evidence suggests positive spillovers from the US measures implemented since the outbreak of the COVID-19 crisis, at least in the short term (over the first two years). Considering the size of the fiscal impulse, these spillovers are not negligible.

The global spillover effects of US macroeconomic policies are consequently expected to be positive. There is more uncertainty beyond 2022. Besides, we should keep in mind that the euro area will first benefit from its own policy mix. Consequently, it should not rely on US policies and should consider additional stimulus, notably fiscal, to consolidate and accelerate the recovery and avoid a risk of growing divergence with the US.

However, we also discuss briefly that the main spillover effects from the US may not stem from macroeconomic policies but from financial risks. Asset prices have sharply increased in 2020 pointing to the risk of financial bubbles at least in the US. It is therefore key to the optimal policy management of the euro area to keep in mind that the positive macroeconomic spillovers are also potentially accompanied by higher financial risks. While we focus more on the former in this document, the latter may have a profound impact on the euro area at the mid- to long-term horizon.

2. THE US MACROECONOMIC POLICY RESPONSE TO THE COVID-19

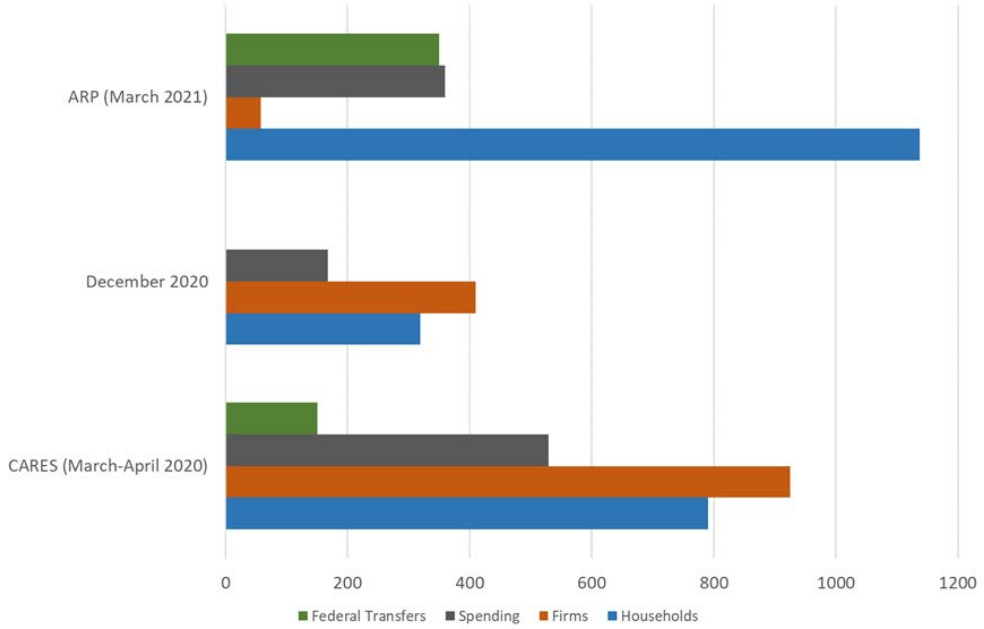
From the very beginning of the pandemic, the Trump Administration took various emergency measures. The bulk of those measures were enacted in the Coronavirus Aid, Relief, and Economic Security (CARES) Act voted and signed into law on 27 March 2020 and completed with additional measures in April.[1] The total amount of those measures reached USD 2.4 trillion, or 11% of GDP, and aimed to provide a rapid economic stimulus to help firms, households and communities to deal with the pandemic and related economic shock. A significant share of those measures benefited US firms (Figure 1) notably through the Paycheck Protection Program, which consisted in USD 700 billion loans to small and medium-sized enterprises (SMEs) to be used to cover production costs for a period of 8 weeks. Subject to the maintenance of the wage bill, these loans can turn into subsidies. Other tax credit and loan deferral measures complement this measure for total aid to businesses reaching USD 925 billion. Measures for households amounted to nearly USD 800 billion, including a direct transfer of USD 1,200 per adult, and USD 500 per child under 17, for anyone with an annual income below USD 75,000. The amount of the tax credit then decreases and becomes zero for an individual income of USD 99,000. The federal government also paid an additional flat-rate allowance of USD 600 per week to anyone eligible for unemployment over the period from 27 March to 26 July 2020. Public spending and transfers to states have also increased. In a federal state, part of the effects of the crisis actually weigh on the state budget since tax revenues are reduced and expenditure requirements are increased. To the extent that states' debt capacity is limited by their own fiscal rules, federal transfers play an essential stabilising role.

As the pandemic situation had not come to an end, there was a need to implement additional support measures. It was done in December 2020, after long weeks of negotiations between Republicans and Democrats. The Congress struck a deal on a USD 900 billion plan, which was viewed as a provision on measures to be taken after Joe Biden would take his position. Soon after, he proposed a new plan (the American Rescue Plan Act, ARPA) to the Congress, which then was passed in March 2021. Contrary to the CARES Act, this time it was households that benefited from the bulk of measures. They notably received a new check of USD 2,000 per adult plus USD 2,000 per dependent child, with conditions related to the level of income.[2] Unemployment benefit of USD 300 per week was also being extended and is expected to support the income of people losing their jobs until the summer. Accounting for other measures - sick leave, food and housing assistance, other tax cuts - households would receive USD 1,375 billion (6.4% of GDP) in 2021. The Biden plan also includes increasing federal transfers (USD 350 billion) and funding new health care - screening and vaccination campaign - and education. The cumulative amount of the new measures voted in December 2020 and March 2021 then amounts to USD 2.8 billion (10.3% of GDP).

[1] Actually, the first measures were passed on 5 March and 18 March with the Families First Coronavirus Response Act. These measures amounted to USD 27 billion - far less than the USD 2.2 trillion passed with the CARES Act.

[2] This amount includes the USD 600 checks voted by the Congress in December 2020 (Tax Relief Act of 2020).

Figure 1: Allocation of fiscal measures, USD billion



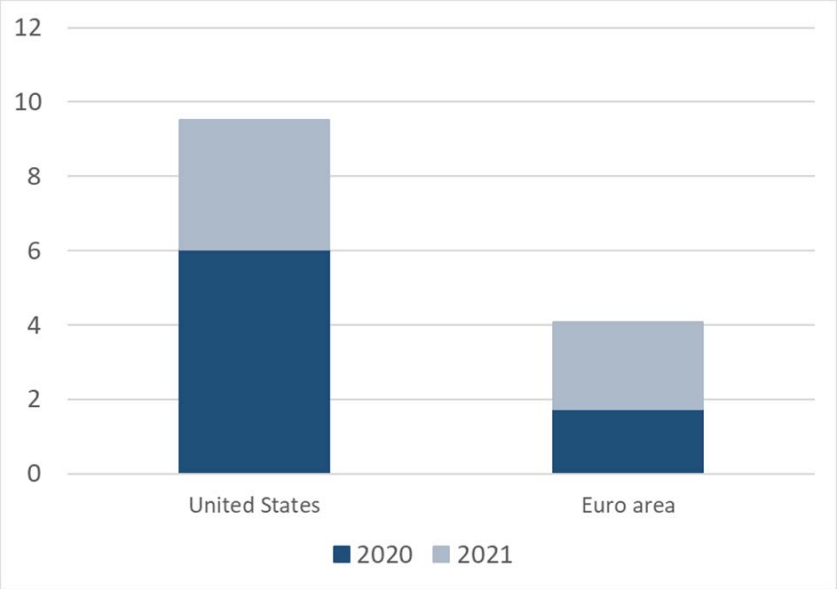
Sources: Congressional Budget Office, White House and authors' calculations.

If we account for all the measures that have been voted for since March 2020, the cumulative fiscal impulse in the US amounts to almost 10% of the potential GDP according to the Organisation for Economic Co-operation and Development (OECD), much more than the cumulated fiscal measures implemented in the euro area (Figure 2)[3]. Beyond the magnitude of the fiscal impulse, its decomposition may also matter for assessing the effect on the US economy as well as the spillover effects to the euro area. The effect of these measures on the US activity will depend on the size of the multipliers and the current output gap. Empirical literature generally suggests that fiscal multipliers are different according to the instrument of fiscal policy (public spending, transfers, taxes or public investment). The reduction of mobility and the measures taken to foster social distancing have constrained spending and certainly disrupted the effectiveness of measures that have already been taken. It is likely that some of the measures taken under the Donald Trump Administration have already benefited the economy, but the main impact would materialise in 2021. In that context, even if there was consensus on the need for a new stimulus, its magnitude has opened a new wave of debates because the stimulus occurs during the recovery process and while the economy is still benefiting from the support measures voted in 2020. Some economists like Olivier Blanchard and Lawrence Summers have indeed expressed their concerns: is Biden's stimulus package likely to overheat and fuel the return of inflation?[4] The issue of inflation is surely important for the US. It may also influence the spillover effect to the euro area.

[3] The fiscal impulse is different from the sum of the measures voted in the stimulus packages. It corresponds to new spending, tax or transfer measures for a given year. Thus, a measure voted in one year (t) and carried out identically in the next (t + 1) only creates an additional budgetary stimulus in the year (t) and is therefore not counted as an impulse in (t + 1). The yearly fiscal impulse may be calculated by taking the change in the cyclically-adjusted primary balance.

[4] See Summers, L. H. (2021). "The Biden stimulus is admirably ambitious. But it brings some big risks, too", Opinion, The Washington Post, 4 February and Blanchard, O. (2021). "In defense of concerns over the $1.9 trillion relief plan". Peterson Institute for International Economics Realtime Economic Issues Watch, 18.

Figure 2: Fiscal impulse in the United States and the euro area, in % of potential GDP



Source: OECD Economic Outlook n°199.

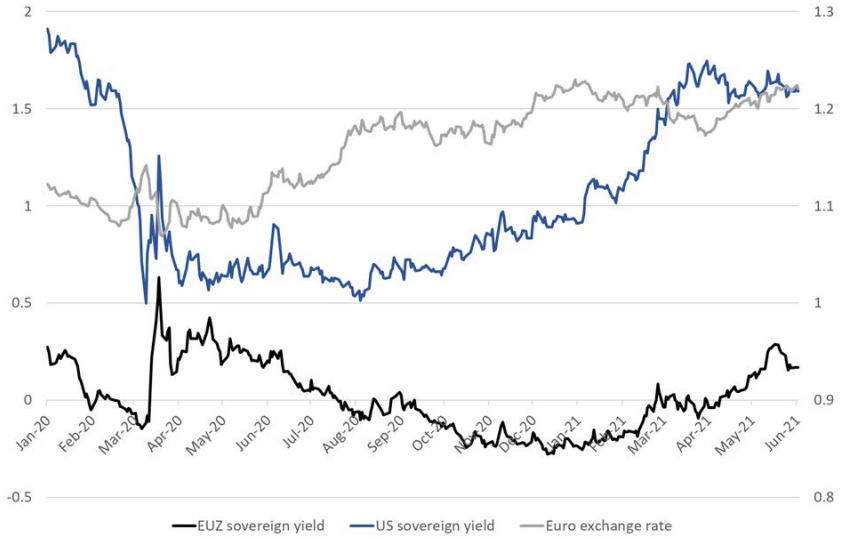
Besides, soon after the ARPA was enacted, Joe Biden has made two fiscal proposals that may also induce additional fiscal impulse to the US. He notably aims to stimulate public investment through a USD 2.7 trillion plan (American Jobs Plan) over 8 years, which would represent 1.6% of GDP per year. The precise stimulus that would be triggered by this package would not be that high as the investment plan would be partly offset by a rise in the corporate tax rate and by raising the tax rate on foreign profits. In addition to the American Jobs Plan, Joe Biden also proposed the American Families Plan which would increase spending for paid parental, family and personal illness leaves, invest to create free preschool for all three-and four-year-olds, provide tax credits to lower insurance premiums and promote a childcare reform. Here again, spending would be partly offset by an increase in the income tax rate for high incomes. Besides, it may be noted that those proposals will be discussed by the Congress, which may bring some changes in the size of the plans and their funding. Yet, all those plans, voted or expected to be voted, signal that fiscal policy will be strongly expansionary in 2021. For 2022 and after, there is more uncertainty depending on the future debates in the Congress but also on the end of measures enacted in the CARES Act or ARPA.

Regarding monetary policy, central banks have rapidly reacted by loosening the stance of monetary policy since the outbreak of the crisis. The Federal Reserve has lowered the federal funds rate target range to 0-0.25%. Then, it has reactivated unconventional measures, and notably quantitative easing (QE). The Federal Reserve resumed asset purchases of Treasuries and mortgage-backed securities (MBS). This has resulted in a significant rise of the Federal Reserve's balance sheet. The ECB has also resorted to a package of unconventional measures to amplify the loosening of monetary stance in the euro area.[5] It has also resulted in an increase of the Eurosystem's balance sheet, which is comparable to the one observed for the Federal Reserve. It may therefore be argued that, compared to fiscal policy, there is no strong difference in the monetary policy stance in the euro area and in the US even if the long-term sovereign yields remain lower in the euro area (Figure 3). The difference in the level of

[5] The policy rate was already at the effective lower bound.

sovereign yields may not only reflect the transmission of monetary policy but also inflation and growth expectations. Besides, the euro has appreciated against the dollar after June 2020.

Figure 3: Sovereign yields and exchange rate, in %, EUR 1=USD...



Source: Datastream Eikon.

The potential surge of inflation in the US caused by fiscal policy would surely be a concern for the Federal Reserve. We would consequently expect an increase in the interest rate and the exit from unconventional measures if those inflation pressures materialised. According to the minutes of the April 2021 meeting, Federal Open Market Committee (FOMC) members considered that this risk was limited. This is also consistent with the forecasts of the FOMC members released in March. The median inflation forecast stood indeed at 2.4% for 2021, but would return to 2% in 2022. The next meeting, scheduled for 16 June, will show whether FOMC members have changed their view after the publication of the inflation figure for April, which indicates a rapid increase of inflation over a couple of months.[6] Based on recent estimates, Ball et al. (2021) expect inflation to remain close to 3% by 2023 even if the unemployment rate hit an all-time low of 1.5%. Their calculations therefore plea for not overestimating the inflationary risk even if the Biden plan is successful. In such a scenario, the Federal Reserve might not tighten monetary policy. According to its latest review of monetary policy strategy, the FOMC would now tolerate inflation moderately above 2% for some time as long as inflation has been running persistently below 2% in previous years, which is actually the case.[7] Despite uncertainty, risk of inflation is higher in the US than in the euro area and consequently, there is a higher probability that monetary policy stance would be less expansionary in 2021-2022 in the US than in the euro area.

[6] According to the Bureau of Labor Statistics, inflation, measured by the yearly change of the personal consumption expenditures (PCE) index, jumped to 3.6% whereas it was 1.2% in December 2020.

[7] This strategy is called average inflation targeting. The objective is now clearly to reach a 2% inflation rate on average over time. Consequently, if the inflation average is 1.3% for 2 years, as was the case in 2019-2020, the Federal Reserve would theoretically tolerate a 2.7% inflation in average in 2021 and 2022.

3. MACROECONOMIC SPILLOVERS TO THE EURO AREA

3.1. A literature review on the transmission channels of policy spillovers

3.1.1. Monetary spillovers

In standard international economics textbooks, an expansionary monetary policy in the US reduces the US interest rate and, with flexible exchange rates, leads to a depreciation of the US dollar. It is the so-called beggar-thy-neighbour effect of expansionary policy according to which a monetary policy in one country is detrimental to the other countries. However, when the shock stems from a large country like the US, the negative effect through a loss of competitiveness can be offset by the positive demand shock and by a reduction in the world interest rate as highlighted by Kim (2001).

In a recent contribution, Degasperi et al. (2020) have shown that US monetary policy has important spillover effects to a group of 30 countries. A restrictive monetary policy produces a decline in foreign output despite the appreciation of the US dollar[8]. Degasperi et al. (2020) report a stronger financial channel, via higher yields and funding costs of banks in the foreign economies, than the real (via industrial output) and nominal (via the exchange rate) channels that may have mitigated each other. They also highlight an oil price channel that emerges from the lower international demand for oil after the US monetary shock that transmits to lower headline inflation. They finally show that the choice of a flexible exchange rate regime does not help isolate the foreign economies from US monetary shocks. Their results are pretty much consistent with the international dilemma put forth by Rey (2013) according to whom monetary policy can be autonomous if and only if there are some controls or regulations on financial flows. Under Robert Mundell's former trilemma, monetary autonomy and full capital mobility were possible under a flexible exchange rate regime.

These findings are consistent with Dedola et al. (2017) who shed light on local vs international currency pricing and their impact on the sign of spillover effects. If exporters set their price in US dollars, they do not benefit from the exchange rate depreciation while higher import prices increase inflation and bring the central bank to tighten monetary policy. In this case, the spillover of the foreign monetary policy on the local economy is negative.

Ca' Zorzi et al. (2020) report monetary spillovers between the US and the euro area that would also work mainly via a financial channel. They also show an asymmetry between the two regions/countries: while Fed policies impact significantly on the euro area, ECB policies do not affect the US economy or to a much lower extent. They conclude that there is limited scope for monetary coordination between US and euro area economies, except after large shocks that require substantial monetary reactions.

In the literature on spillovers, there is growing importance attributed to global value chains in spreading the international spillovers of either monetary policy (see Di Giovanni and Hale, 2021) or fiscal policy (see Devereux et al., 2020). In both cases, it appears that spillovers are amplified by the introduction of these global value chains in the modelling methodology. According to Di Giovanni and Hale (2021), 70% of the total impact of US monetary policy shocks on foreign stock returns are due to the network effect of global production linkages.

[8] The impact of a monetary policy shock on the exchange rate remains a widely debated issue where predictions from models are not easy to reconcile with event studies (see Gürkaynak et al., 2021).

3.1.2. Fiscal spillovers

The impact of fiscal policy in the open economy can be related to the canonical Mundell-Fleming-Dornbusch macroeconomic framework. According to this framework, the size of international fiscal spillovers depends on the exchange rate regime between the country that implements a fiscal stimulus and the rest of the world. In both cases though, the spillovers are expected to be positive. Under a fixed regime, the fiscal stimulus would spark an accommodative monetary policy that would raise the domestic fiscal multiplier (the impact of a change in public spending on the change of output) while inducing a rise in domestic demand for foreign goods. Under a flexible regime, a fiscal stimulus would produce a currency appreciation (absent from the former case) that would ultimately crowd out net exports. Whether the spillovers are larger in one of the two regimes depend on the price and volume effects of fiscal policy. In the first regime, there is no price effect and the volume effect is quite large (large multiplier effect) whereas in the second regime, the price effect works in addition to the volume effect but there, the multiplier effect is expected to be smaller than under the first regime. To validate these arguments, one can refer to Ilzetzki et al. (2013) who show that domestic fiscal multipliers were larger under fixed exchange rates than under flexible exchange rates and were larger the less open the economy was (hence lower the foreign leakage of the domestic stimulus). They also report (real) appreciation on impact after a fiscal shock under a flexible exchange rate regime. All in all, one should therefore expect positive spillovers from expansionary fiscal policy implemented in a large country like the US.

Quite recently though, a few puzzles have emerged from the literature about fiscal spillovers. First, the trade linkages that are at the heart of fiscal spillovers are more complex than initially envisioned in the canonical open economy model and may be either positive or negative. Second, fiscal stimuli have been shown to produce a currency depreciation, and not an appreciation. Third, and in accordance with the previous point and with the recent literature on monetary spillovers discussed above, the trade linkage has been shown to be of second-order to explain fiscal spillovers. For the sake of comprehensiveness, we report and discuss these arguments in the following. Then we turn to recent empirical investigations to help disentangle the different and opposing arguments on the theoretical size of fiscal spillovers. We conclude with a few simulations to disentangle the effects in the recent context.

Cacciatore and Traum (2021) show that "following an increase in government spending that raises world demand for domestic goods, trade linkages increase domestic multipliers provided that the positive wealth effect stemming from the favourable relative price movement more than offsets its negative substitution effect." They add that "larger domestic multipliers can coexist with a trade deficit". Their line of reasoning is the following: if prices of domestic goods increase relatively to imported goods, households are wealthier as they "give up fewer imports to consume one unit of the domestic good" and they may tend to consume more overall rather than simply substituting domestic for "cheaper" imported products. While the trade balance may well decline, the multiplier effect of the domestic policy would tend to increase. Differently stated, the exchange rate appreciation and the rise of the trade deficit are not the enemy of fiscal effectiveness. Cacciatore and Traum therefore show, in contrast with previous analyses, that policy effectiveness (the fiscal multiplier) rises with trade openness. What does it mean in terms of fiscal spillovers? Cacciatore and Traum argue that the trade linkages that will generate the spillovers will be larger the higher the relative import shares in the private sector vis-à-vis the public sector, for it is only in the private sector that the wealth effect may arise. Whatever may raise the price of domestic goods relatively to imported goods (e.g., a tax rise to fund higher public spending or when export invoicing is made in the currency where the fiscal stimulus occurs [international currency pricing]), it will produce positive fiscal spillovers. Then, fiscal policy effectiveness (the fiscal multiplier) and trade deficit (fiscal spillovers) go hand in hand.

The expected impact of a fiscal stimulus on the nominal and real exchange rate has been highly debated though. While the canonical modelling approach predicted an appreciation, some empirical results emerge that showed that fiscal expansions were followed by a depreciation (see Monacelli and Perotti, 2010; Ravn et al., 2012), therefore inducing smaller, if not negative, fiscal spillovers. However, and according to Auerbach and Gorodnichenko (2016), the former result disappears when one evaluates the impact of fiscal announcements on the economy. Auerbach and Gorodnichenko claim that ex post data on fiscal policy may not identify the precise timing of decisions. Drawing on ex ante fiscal data (fiscal announcements), they show that US fiscal policy is followed on impact by a dollar appreciation. Ferrara et al. (2020) use military narrative series constructed by Ramey (2011) to identify fiscal shocks in the US. They conclude in the same direction as Auerbach and Gordonichenko (2016): US fiscal policy produces a real exchange rate appreciation, hence positive fiscal spillovers.

Finally, Corsetti et al. (2010) and Corsetti and Müller (2013) show that fiscal spillovers emerge only after they introduce a reversal spending rule in their estimations. Without such a rule, they find negligible fiscal spillovers with only small changes in the trade balance. But once they introduce the expectation of spending cuts after a positive spending shock (their reversal spending rule), they find consistent results with the literature: fiscal policy is expansionary in the originating country and its spillovers are positive. They conclude that the financial channel of a fiscal shock, via a decline in long-term interest rates, is more important than the trade linkage to highlight fiscal spillovers (see also Faccini et al., 2016, and the literature on monetary spillovers).

3.2. Lessons from the empirical literature and from a macroeconomic model

In light of the various effects that fiscal policy may have abroad – trade linkages, terms of trade effects, real exchange rate effects, financial channels -, the existence of fiscal spillovers is most and foremost a matter of empirical evidence. Auerbach and Gorodnichenko (2013) draw empirically on trade linkages and show that fiscal spillovers are positive and significant across OECD countries when fiscal policy is most effective, hence during recessions, whereas fiscal spillovers tend to be negative or non-significant in upturns. Popescu and Shibata (2017) concentrate exclusively on US fiscal policies and show that pre-announced public spending shocks produce substantial fiscal spillovers *via* the US dollar appreciation and the trade balance deterioration. In a similar exercize, Blagrave et al. (2017) study the fiscal spillovers of fiscal policy in five countries (France, Germany, Japan, UK, US) on 55 advanced and emerging economies. They show that spillovers are substantial during recessions and when monetary policy is accommodative (see also Auerbach and Gorodnichenko, 2016). They also report higher spillovers between countries under a fixed exchange rate regime that they attribute to the higher trade integration that may accelerate the cross-effects. Finally, Cacciatore and Traum (2021) find positive spillovers between the US and Canada, and between the US and the euro area.

Regarding monetary spillovers, it is straightforward that in the current context both central banks implement an expansionary monetary policy. It is therefore difficult to disentangle the direct effects from a local monetary policy from the spillover effects from a foreign policy. Actually, during the pandemic, the policy rates have been set or remained at the zero lower bound (ZLB). The ECB and the Federal Reserve have resorted to large assets purchase programmes triggering a similar increase in the size of their balance sheets that makes the investigation of US monetary policy effect on the euro area economy certainly less sensitive than US fiscal policies.

Besides the empirical literature, we shed light on the impact of the US policy response to the COVID-19 pandemic in a comprehensive macroeconomic framework that will therefore include most of the transmission channels that we discussed earlier.

To conduct this analysis, we use the New Area Wide Model (NAWM) available on the Macromodel database, which is a dynamic stochastic general equilibrium (DSGE) model of euro area and US whose structure and calibration are based on Coenen et al. (2008). This model has been largely used to conduct forecasting and policy analysis and this justifies exploiting it to evaluate spillovers of a large fiscal stimulus in US on the euro area[9]. Given the calibration described in Coenen et al. (2008), we proceed to illustrate the dynamic response of main economic variables through a US monetary policy shock and two types of fiscal shocks (government spending and transfer shock) that embed the different features of the recent plans of the Biden Administration (see Section 2).

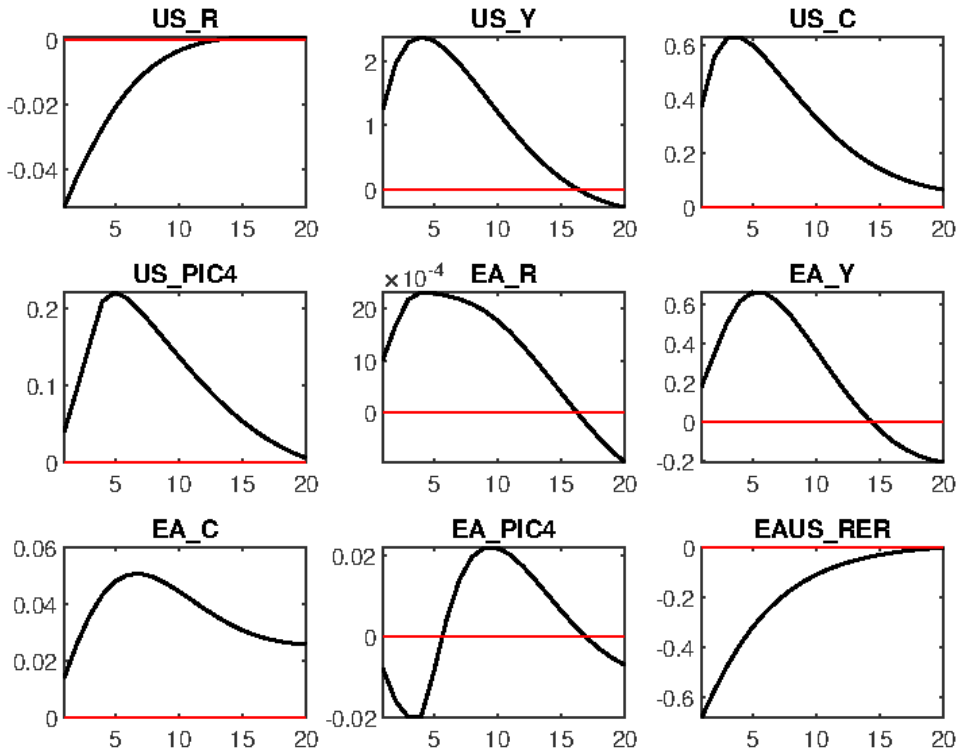
The monetary policy shock is an expansion and is interpreted as a 100-basis point *decrease* in the annualised nominal interest rate. The government spending and the transfer shocks are worth a 1% *increase* in steady state output respectively. All dynamic responses are reported in percentage deviation from the steady state, except for the interest rate and inflation which are reported in percentage point deviation.

3.2.1. Dynamic responses to a monetary policy shock in the US

Figure 4 below shows the quarterly response of the US and euro area economies to a monetary expansion in the US. Results for the US are as expected: there is a boost to demand, a depreciation of the US dollar (that produces an improvement in the US trade balance), and a rise in consumption inflation. All these dynamics give rise to positive spillovers to the euro area economy, despite the trade balance effect and the (small) rise in the interest rate to dampen inflation in the euro area. As a matter of fact, the euro area benefits from the sharp increase in US demand (volume effects) that leads to a positive effect on euro area GDP. These positive effects last almost 4 years.

[9] The model consists of two "countries": the euro area and the US. Each country contains four types of agents: households, firms, a fiscal authority, and a monetary authority. Two sets of households are differentiated, some liquidity-constrained and some with an ability to access financial markets and smooth their consumption on their entire life horizon. There are also two types of firms, some producing the tradable intermediate goods and some producing the non-tradable final goods. NAWM includes several nominal and real frictions such as sticky prices and wages, habit persistence in consumption and adjustment costs on investment. In the model, the fiscal authority stimulus works through public consumption or transfers and the monetary policy shock works on a standard Taylor-type interest rate rule.

Figure 4: Monetary policy expansion in the US: effects on the US and euro area



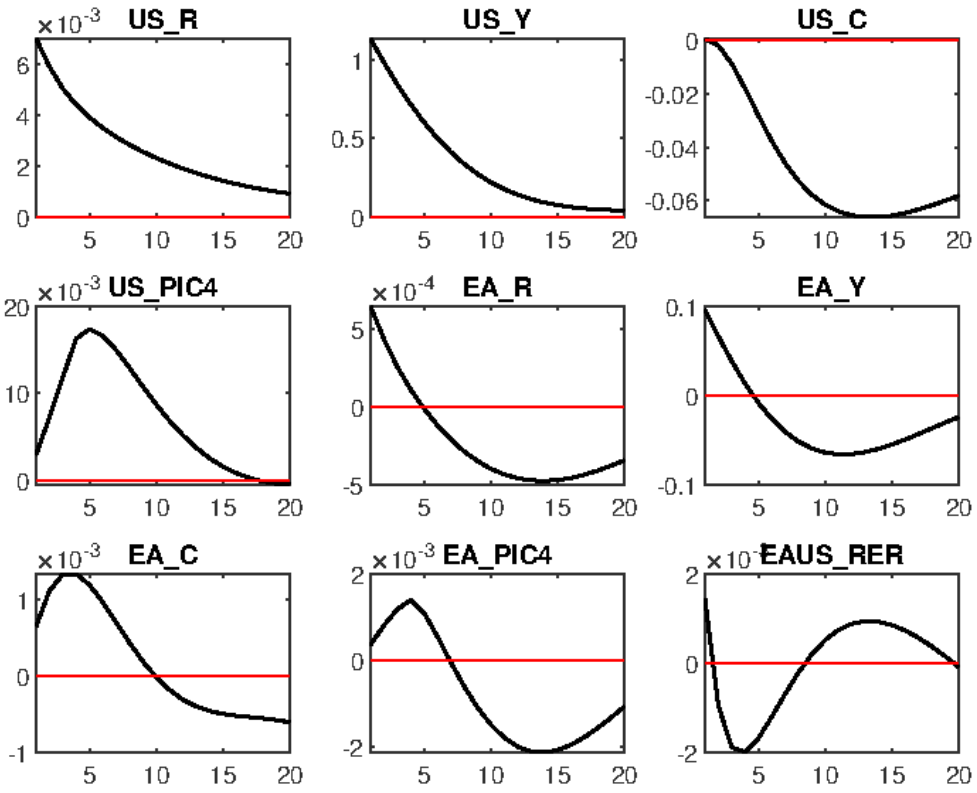
Notes: R: interest rate, Y: output; C: consumption; PIC4: consumer inflation; RER: real exchange rate. Vertical axis: responses reported in percentage (output, consumption, real exchange rate) or percentage point (interest rate, inflation) deviation from the steady state. Horizontal axis: number of quarters.

Source: Authors' simulations based on the New Area Wide Model (NAWM).

3.2.2. Dynamic responses to a government spending shock in the US

The same exercise is then conducted for a US public spending and fiscal transfer shock. NAWM model implies a weak crowding out effect following a government spending shock thanks notably to the presence of frictions and liquidity-constrained households (Figure 5). Beyond that, the open economy setting prevents private consumption from falling more sharply, because it allows households to borrow from abroad and therefore to smooth consumption more effectively. There is therefore a high multiplier of government spending which implies a high US GDP response. The increase in output leads to higher inflation and the monetary policy is tightening due to inflationary pressures. On the side of the trade balance, imports increase. This increase is accompanied by a drop in the terms of trade which induces a prolonged shift in expenditure from national goods to foreign goods. Thus, the negative effect generated by the government spending shock is offset by the positive wealth effect due to the improvement in the terms of trade.

Figure 5: Increase of public spending in the US: effects on US and euro area



Notes: R: interest rate, Y: output; C: consumption; PIC4: consumer inflation; RER: real exchange rate. Vertical axis: responses reported in percentage (output, consumption, real exchange rate) or percentage point (interest rate, inflation) deviation from the steady state. Horizontal axis: number of quarters.

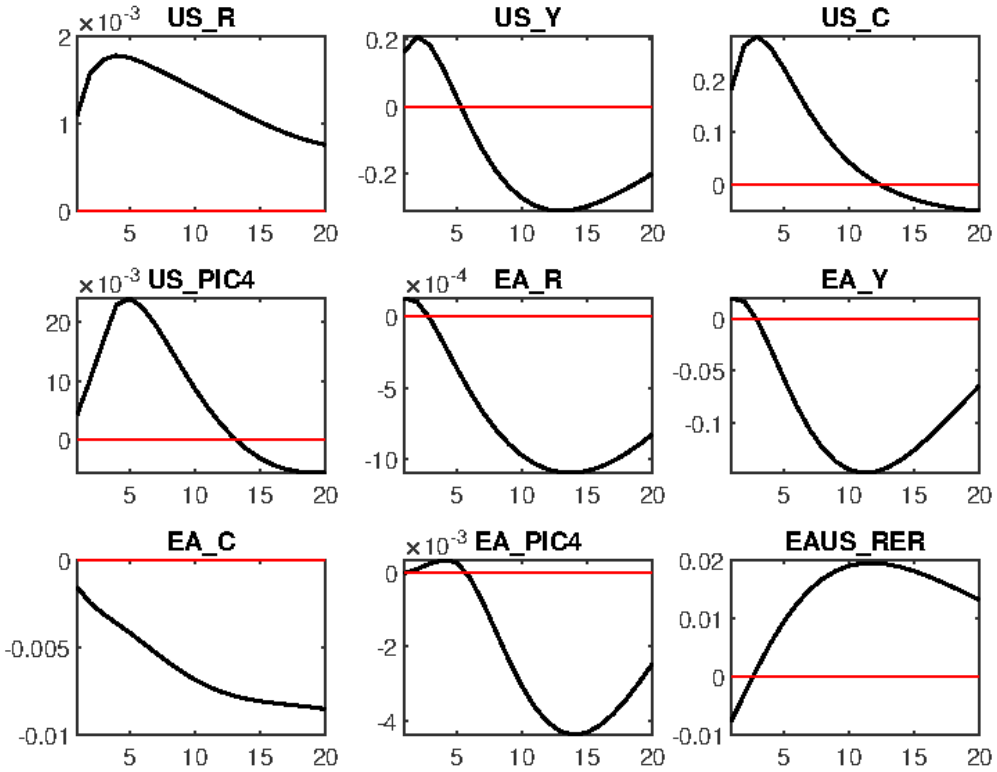
Source: Authors' simulations based on the New Area Wide Model (NAWM).

As for the euro area, it would immediately benefit (and up to a year) from the rise in US GDP through an increase in net exports. Prices adjust in response to increased aggregate demand, and monetary authorities in the euro area respond to inflationary pressures. Two effects can then occur to explain the drop in GDP in the euro zone after one year. First, the price effect makes exports less attractive and worsens the trade balance. Second, the rise in the interest rate in response to inflationary pressure reduces private investment. A longer lasting positive spillover from the US government spending shock on the euro area economy would require a more accommodative monetary policy by the ECB.

3.2.3. Dynamic responses to a transfer shock in the US

The model permits to separate public spending from transfers and to highlight the differentiated expected impacts on the euro area economy of the US fiscal stimuli. While we have just shown that a US boost to public spending in a general equilibrium framework would have positive (but short-lived) spillover effects to the euro area economy, a shock on US transfers would have almost none (Figure 6). This is simply the consequence from a small and very short-lived positive real effect of the fiscal shock on the US economy that would only mildly transmit to the euro area economy. This simulation recalls that all fiscal packages are not alike.

Figure 6: Increase of public transfers in the US: effects on the US and euro area



Notes: R: interest rate, Y: output; C: consumption; PIC4: consumer inflation; RER: real exchange rate. Vertical axis: responses reported in percentage (output, consumption, real exchange rate) or percentage point (interest rate, inflation) deviation from the steady state. Horizontal axis: number of quarters.

Source: Authors' simulations based on the New Area Wide Model (NAWM).

One should keep bearing in mind that these simulations are only illustrative of the general equilibrium dynamics of policy shocks. After the COVID-19 crisis and during the recovery period, the lower output gap than at the so-called "steady state of the economy" that NAWM does embed may generate different sizes of the fiscal multipliers. Empirical literature since the global financial crisis has indeed suggested that fiscal multipliers would be higher during recessions or at the zero lower bound. This line of research is challenged by Ramey (2019) and has not been extended to fiscal spillovers. It would suggest that if fiscal expansion in the US triggers a higher effect on the US GDP since the output gap is negative and monetary policy rate is at the ZLB, then the demand effect would be magnified suggesting more positive spillovers in the euro area.

4. MACROECONOMIC AND FINANCIAL EFFECTS OF US POLICIES

4.1. Are US fiscal and monetary spillovers to the euro area significant?

To assess the potential effects of US policy decisions taken in 2020 and 2021, we turn to a more direct empirical analysis. Since the global financial crisis, there has been a renewed interest in the literature devoted to the fiscal multiplier questioning notably whether the fiscal multiplier is higher during recessions, at the zero lower bound or during financial crises. The aim here is not to review this literature but to give insight on the potential effect of US policies on the euro area. To that end, we use a simple vector autoregressive (VAR) model common in the assessment of the effect of US fiscal policy on the US GDP and we extend it to account for the response of the euro area GDP. Ramey (2019) discusses the value of fiscal multipliers in the US with a standard VAR including general government consumption and investment expenditures per capita, federal government receipts per capita, US GDP per capita, inflation measured by the GDP deflator and the interest rate on the 3-month Treasury Bill.[10] Even if monetary policy is not discussed by Ramey (2019), the inclusion of the 3-month Treasury Bill may be used to estimate a response to a monetary policy shock if we assume that the 3-month rate can proxy the monetary policy instrument .[11]

The dataset is extended until 2019 Q4 and completed to account for euro area data: GDP per capita, inflation and the 3-month interbank interest rate.[12] All euro area variables enter after the US variables, which implies that US variables and notably US monetary policy does not react contemporaneously to unexpected shocks to euro area variables. The US variables are therefore "more exogenous" than the euro area variables.[13]

With this model, we can compute the reaction function of the euro area GDP per capita to US policy shocks (Figure 7). The estimations indicate that fiscal spillovers depend not only on the nature of shock but may also change over time. After an increase in public spending – consumption or investment – the response of GDP in the euro area is significantly positive during the first year. It may suggest that the increase in demand resulting for the rise of US GDP would dominate initially. After two years, the effect becomes negative, which may stem either from an exchange rate effect or from an increase in the world interest rate. The response to a tax shock is less ambiguous since an increase in US taxes – here a restrictive policy – reduces GDP in the euro area.

Regarding the composition of the US fiscal impulse in 2020 and 2021, we may expect positive spillovers as there is indeed a large share of tax cuts and transfers increase in the fiscal packages voted up to now. In 2021, spillovers would be magnified since spending has also increased.

Turning to monetary policy, the dynamic response of GDP per capita in the euro area exhibits a significant positive effect the second year after a *restrictive* shock. However, this effect is short-lived and becomes negative after 15 quarters. The initial effect may reflect the exchange rate depreciation of the euro, which is expected after a restrictive monetary policy in the US. Considering that monetary policy also takes time to be fully transmitted to the US GDP, the decline in the GDP in the euro area may be

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[10] Data and codes are available on Valerie Ramey's website: https://econweb.ucsd.edu/~vramey/research.html#govt. Estimations are realised over a long sample starting in 1939. All variables except the interest rate and the inflation rate are expressed in logarithm. Nominal variables are deflated by the GDP deflator.

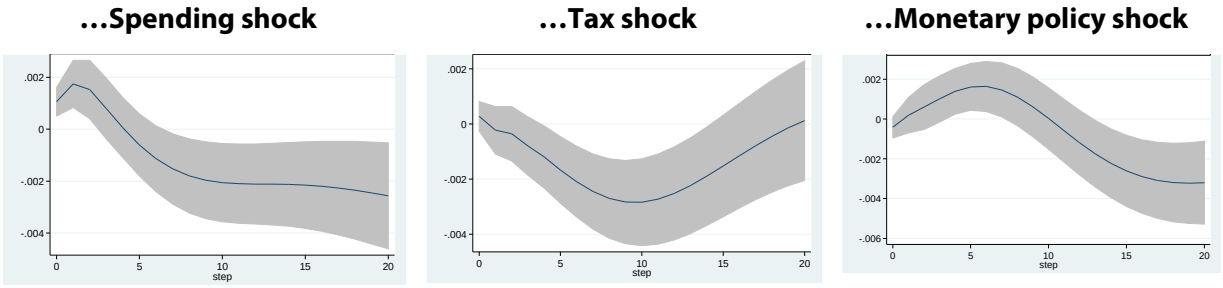
[11] VAR models may suffer from critical identification issues and may not provide the best quantification of the effects of fiscal policy and monetary policy. We have considered here that this approach may be suitable as we do not aim to precisely quantify the effect of US policies but rather to provide some insights on the *sign* of spillovers.

[12] Due to the lack of data for the euro area over a long period, we estimate the full (US-euro area) model from 1995. Transformations applied to the euro area data are the same as those used by Ramey (2019) for the US.

[13] The impulse reaction functions are not sensitive to the order of euro area variables in the VAR.

related to the decline in demand in the US. Besides, we show in Table 1 that those shocks account for a non-negligible share of the variance of GDP in the euro area.

Figure 7: The response of euro area GDP to a US…



Sources: Authors' estimation, Ramey (2019).

Table 1: Variance decomposition: share of euro area GDP explained by US shocks, in %

After … quarters	Spending	Taxes	GDP	Monetary policy	Inflation
4	9.9	1.2	2.1	2.2	2.1
8	7.7	10.7	2.0	7.6	1.3
12	11.8	20.2	2.0	5.7	1.3
16	15.2	21.4	1.7	9.8	1.2
20	17.1	16.9	1.5	17.4	2.4

Source: Authors' estimation, Ramey (2019).

This empirical exercise highlights potential significant effects of US policies on the GDP in the euro area. However, the total effect depends on the nature of the policy mix. If the Federal Reserve decides to tighten monetary policy in 2021, we expect more positive spillovers in the euro area in 2021-2022 after the European countries will have also benefited from the effect of US fiscal policies. There is more uncertainty beyond 2022. These results should not be misinterpreted as giving a blessing to euro area countries for not implementing expansionary policies to accelerate the recovery. Spillovers from US policies may be positive, but they are uncertain and they may be short-lived. Besides, the effect of US policies will first provide stimulus in the US, which may amplify differences between the US and the euro area. All economic forecasts for 2021 entail diverging recovery since, according to the IMF World Economic Outlook, the US GDP would grow at 6.4 % against 4.4 % in the euro area, whereas the 2020 euro area recession has been stronger.

4.2. Did financial variables in the euro area react to US fiscal news?

We extend the analysis of the spillovers of recent US policies on financial variables. As Section 3 pointed out, the literature on fiscal and monetary spillovers highlights the role of the exchange rate. As illustrated in Figure 3, the euro has appreciated against the dollar after June 2020. It is, however, not clear whether this change is related to news on fiscal and monetary policies. Considering the forward-looking behaviour of exchange rates, Auerbach and Gorodnichenko (2016) show that the euro-dollar rate should react to new information related to fiscal policy.

Since the beginning of the pandemic, there have been several announcements reflecting the measures taken by governments to deal with the crisis. We therefore analyse the reaction of the euro-dollar exchange rate and of other financial variables in the euro area around US fiscal policy announcements. According to the event-study methodology, changes in forward-looking financial variables reflect the flow of new information. On a short window around the policy announcement, the changes of the variable may be attributed to the new information assuming that there is no other economic information inside the window. However, it may be objected that contrary to monetary policy, fiscal policy decisions are not taken in one-day meetings, that are generally scheduled and followed by a statement. US fiscal policy is first discussed by the Congress, based on a proposal made by the President. Then, plans are voted by the Senate and the House of Representatives before being signed by the President. In order to assess for the reaction of financial variables, we account for this timing of information. To that end, we consider whether key financial variables in the euro area – exchange rate, stock prices, sovereign yield – have been affected by this flow of information in 2020. We consider five announcements and disentangle each of them between the date when the plan was voted by the Congress and the date when it was signed by the US President (Table 2).

Table 2: Timing of fiscal policy announcement during the COVID-19 crisis

	Voted by the Congress	Signed by the President
Families First Coronavirus Response Act	14 March 2020*	18 March 2020
Coronavirus Aid, Relief, and Economic Security Act	25 March 2020	27 March 2020
Paycheck Protection Program and Health Care Enhancement Act	21 April 2020	24 April 2020
Consolidated Appropriations Act	21 December 2020	28 December 2020
American Rescue Plan Act	6 March 2021*	11 March 2021

Notes: The Families First Coronavirus Response Act was voted by the House of Representatives on 14 March 2020. As it was on Saturday, the dummy variable (see equation below) takes the value 1 on 16 March 2020. It may be noted the last vote occurred in the Senate on 18 March, the same day that it was signed by the US President. The American Rescue Plan Act was voted by the Senate on 6 March 2021. As it was a Saturday, the dummy variable takes the value 1 on 8 March 2020.

Source: Ballotpedia.org.

We estimate alternatively and separately the following equation for four dependent variables: the euro-dollar exchange rate, the 3-month forward euro-dollar exchange rate, the euro area stock price index (Euro Stoxx 50) and the euro area average sovereign yield:

$$y_t = \alpha + \beta_1 . Congress_t + \beta_2 . President_t + \gamma . Z_t + \mu_t$$

Where y_t is either the change of the logarithm of the respective dependent variable except for the sovereign yield. *Congress* and *President* are dummy variables taking a value of 1 when the policy was either voted or signed, 0 otherwise. $Z_t$is a vector of control variables including 3-month interest rates in the euro area and in the US, and the Chicago Board Options Exchange Volatility Index (VIX) index capturing financial volatility. We consider a one-day window. The results are displayed in Table 3 and show that exchange rates, spot or forward rates, have not reacted after policy announcements. However, the responses of stock prices and the euro area sovereign rates are significant and positive. The reaction occurred after the vote in the Congress. The President signature does not bring additional information to investors. The fiscal packages adopted in 2020-2021 were perceived as good news in the euro area since policy announcements have triggered a positive reaction of stock prices. Interest rates have also increased which may capture a rise in global interest rates following US expansionary fiscal policies.

Table 3: Financial effects of US fiscal news

	Δ.leuro	Δ.leuro	Δ.leuro-forward3m	Δ.leurofor ward3m	Δ.leurostoxx	Δ.leurostoxx	euz_sov	euz_sov
Congress (t)	0		-0.002		-0.006		**0.045****	
	[0.89]		[0.39]		[0.64]		[0.01]	
Congress (t-1)	0.001		-0.001		**0.017***		0.042	
	[0.84]		[0.69]		[0.03]		[0.11]	
President (t)		0		0		-0.012		-0.035
		[0.95]		[0.93]		[0.16]		[0.39]
President (t-1)		-0.002		-0.001		0.015		-0.02
		[0.30]		[0.78]		[0.07]		[0.46]
US 3-month rate	-0.001	-0.001	0.037**	0.037**	-0.007**	-0.007**	-0.003	0.031
	[0.21]	[0.21]	[0.00]	[0.00]	[0.01]	[0.01]	[0.97]	[0.78]
EUZ 3-month rate	0.005	0.005	0.018**	0.018**	0.037*	0.036*		
	[0.13]	[0.14]	[0.01]	[0.01]	[0.02]	[0.02]	-0.013	-0.022
VIX	0	0	0	0	0	0	[0.87]	[0.80]
	[0.13]	[0.19]	[0.73]	[0.53]	[0.06]	[0.08]	0	0.001
euz_sov (t-1)							[0.30]	[0.07]
							0.972***	0.984***
							[0.00]	[0.00]
Constant	0.005	0.004	-0.034**	-0.033**	0.031*	0.031*	-0.015	-0.065
	[0.08]	[0.09]	[0.00]	[0.00]	[0.02]	[0.02]	[0.88]	[0.50]
N	356	356	356	356	356	356	356	356
r2	0.024	0.027	0.038	0.036	0.1	0.099	0.962	0.961

Source: Authors' estimations. Estimations are based on daily data (5 days per week) over the period from 1 January 2020 to 14 May 2021. The p-values are in square brackets. Estimations account for potential heteroscedasticity.

High-frequency reactions to large and mediatised events like a major US fiscal stimulus require much caution in the interpretation[14]. The lack of significant effects on the exchange rates may hide the possibility that the effects were already integrated by market participants. The vote by the Congress was therefore not considered as a *surprise* to them. If this is true, it would imply that the reaction of stock prices and sovereign yields on the day when the Congress adopted the measures do not grasp the full effect of the policy: at least part of the spillovers might have been embedded in prices some days *before* the vote. It remains that, on the voting days, financial prices in the euro area did react.

[14] Debates and discussions in Congress are often largely accounted for by the media.

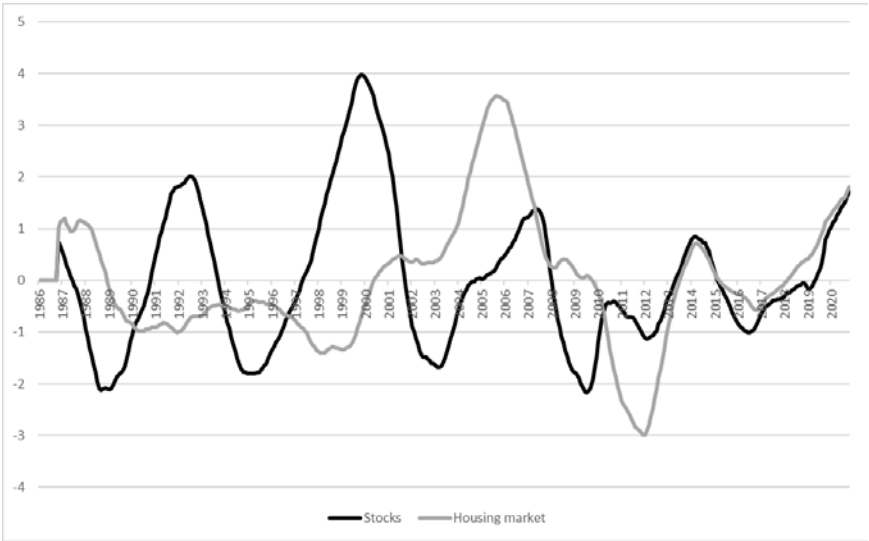
5. CONCLUDING REMARKS: SMALL GAINS BUT HIGHER FINANCIAL RISKS?

The empirical evidence suggests that macroeconomic effects of US macroeconomic policies may be significant and positive in 2021. Beyond 2021, there is more uncertainty. On the one hand, higher demand may stem from the rapid growth expected in the US. The euro area may also benefit from an improvement of competitiveness if US inflation increases. If this risk materialises, the Federal Reserve might consider a policy tightening that would reduce demand after a lag but could reinforce euro area competitiveness if the dollar appreciates. Up to now, such a scenario has not materialised: the euro has appreciated against the dollar in 2020. The outcomes from the event-study do not suggest that this appreciation results from US fiscal policies.

Current estimations do not really point to a significant risk of a surge of inflation in the US. The main risk may stem from financial markets as the combination of a very expansionary fiscal policy and a loose monetary policy may fuel a boom of asset prices. The updated estimations of stocks and housing bubbles based on Blot, Hubert and Labondance (2020) suggest that the size of the bubble components has grown in 2020 (Figure 9).

The main and yet-to-come spillover effect from the US policies may consequently not stem from macroeconomic policies but from financial risks since financial markets are strongly internationalised. The breaking of those bubbles may hurt the euro area financial system and trigger renewed tensions on sovereign yields in fragile countries. The expected, though uncertain, positive macroeconomic spillovers from US policies should not blur the necessity for the euro area to accompany the recovery with an adequate policy mix and to continue preventing the rise of a new wave of financial turmoil.

Figure 8: Asset price bubbles in the US, standardised deviations for the fundamental



Source: Authors' estimations based on Blot, Hubert and Labondance (2020).

REFERENCES

- Auerbach, A.J. and Gorodnichenko, Y. (2013). "Output Spillovers from Fiscal Policy." *American Economic Review*, 103 (3): 141-46.
- Auerbach, A.J. and Gorodnichenko, Y. (2016). "Effects of Fiscal Shocks in a Globalized World," *IMF Economic Review*, 64(1), 177-215, May.
- Ball, L., Gopinath, G., Leigh, D., Mishra, P. and Spilimbergo, A. (2021). "US inflation: Set for take-off?". *VOX, CEPR Policy Portal*, 7(05).
- Blagrave, P., Ho, G., Koloskova, K. and Vesperoni, E. (2017). "Fiscal spillovers: the importance of macroeconomic and policy conditions in transmission", *IMF Spillover Notes* 11. https://www.imf.org/en/Publications/Spillover-Notes/Issues/2017/10/18/Fiscal-Spillovers-The-Importance-of-Macroeconomic-and-Policy-Conditions-in-Transmission-45268
- Blot, C., Hubert, P. and Labondance, F. (2020). "The asymmetric effects of monetary policy on stock price bubbles". *Sciences Po OFCE Working Paper* n° 12/2020. https://www.ofce.fr/pdf/dtravail/OFCEWP2020-12.pdf
- Cacciatore, M. and Traum, N. (2021). "Trade Flows and Fiscal Multipliers", *Review of Economics and Statistics*, forthcoming.
- Ca' Zorzi, M., Dedola, L., Georgiadis, G., Jarociński, M., Stracca, L. and Strasser, G. (2020). "Monetary policy and its transmission in a globalised world", *ECB Working Paper Series* No 2407, May. https://www.ecb.europa.eu/pub/pdf/scpwps/ecb.wp2407~586c50e03f.en.pdf
- Coenen, G., McAdam, P. and Straub, R. (2008). "Tax reform and labour-market performance in the euro area: A simulation-based analysis using the New Area-Wide Model," *Journal of Economic Dynamics and Control*, Elsevier, 32 (8), pages 2543-2583, August.
- Corsetti, G., Meier, A. and Müller, G.J. (2010). "Cross-Border Spillovers from Fiscal Stimulus." *International Journal of Central Banking* 6:5– 37.
- Corsetti, G. and Müller, G. J. (2013). "Multilateral Economic Cooperation and the International Transmission of Fiscal Policy", in Feenstra, R.C. and Taylor, A.M. (eds), *Globalization in an Age of Crisis: Multilateral Economic Cooperation in the Twenty-First Century*, University of Chicago Press, 257-297.
- Dedola, L., Rivolta, G. and Stracca, L. (2017). "If the Fed sneezes, who catches a cold?". *Journal of International Economics*, 108, S23-S41.
- Degasperi, R., Hong, S. S. and Ricco, G. (2021). "The global transmission of US monetary policy", *Sciences Po OFCE Working Paper* n°09/2021. https://www.ofce.sciences-po.fr/pdf/dtravail/OFCEWP2021-09.pdf
- Devereux, M. D., Gente, K. and Yu, C. (2020). "Production networks and international fiscal spillovers", *NBER Working Paper* 28149, November. https://www.nber.org/papers/w28149
- Di Giovanni, J. and Hale, G. (2021). "Stock Market Spillovers via the Global Production Network: Transmission of U.S. Monetary Policy", *NBER Working Paper* 28827, May. https://www.nber.org/papers/w28827
- Faccini, R., Mumtaz, H. and Surico, P. (2016). "International fiscal spillovers", *Journal of International Economics*, 99 (March), 31-45.

- Ferrara L., Metelli, L., Natoli, F. and Siena, D. (2020). "Questioning the puzzle: fiscal policy, exchange rate and inflation", Banque de France Working Paper No 752, January. https://publications.banque-france.fr/en/questioning-puzzle-fiscal-policy-exchange-rate-and-inflation
- Gürkaynak, R. S., Hakan Kara, A., Kısacıkoğlu, B. and Lee, S. S. (2021). "Monetary policy surprises and exchange rate behavior", *Journal of International Economics*, 130.
- Ilzetzki, E., Mendoza, E. G. and Vegh, C. A. (2013). "How big (small?) are fiscal multipliers?" *Journal of Monetary Economics*, 60, 239-254.
- Kim, S. (2001). "International transmission of US monetary policy shocks: Evidence from VARs". *Journal of Monetary Economics*, 48(2), 339-372.
- Monacelli, T. and Perotti, R. (2010). "Fiscal Policy, the Real Exchange Rate and Traded Goods," *Economic Journal* 120(544), 437-461.
- Popescu, A. and Shibata, I. (2017). "Spillovers from US Government spending shocks: impact on external positions", *IMF Spillover Notes* 10. https://www.imf.org/en/Publications/Spillover-Notes/Issues/2017/10/18/Spillovers-from-US-Government-Spending-Shocks-Impact-on-External-Positions-45267
- Ramey, V. A. (2011). "Identifying Government Spending Shocks: It's all in the Timing", *Quarterly Journal of Economics*, 126, 1–50.
- Ramey, V. A. (2019). "Ten years after the financial crisis: What have we learned from the renaissance in fiscal research?". *Journal of Economic Perspectives*, 33(2), 89-114.
- Ravn, M. O., Schmitt-Grohé, S. and Uribe, M. (2012). "Consumption, government spending, and the real exchange rate," *Journal of Monetary Economics* 59(3), 215-234.
- Rey, H. (2013). "Dilemma not Trilemma: The global financial cycle and monetary policy independence", paper presented at the Jackson Hole Symposium, August 2013.

The recent US fiscal packages have raised some concerns on their magnitude, but also their spillovers to the euro area economy. After discussing US fiscal measures and reviewing the literature on international spillovers, we show that the US policy mix may have rather positive macroeconomic effects on the euro area. We conclude though that these effects need to be balanced against growing financial risks.

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