

### THE IMPORTANCE OF AN INTERNATIONALLY COORDINATED FISCAL POLICY RESPONSE AND ITS INTERACTION WITH MONETARY POLICY

The impact of a specific discretionary fiscal measure depends on many factors, the foremost of which are the fiscal space of the economy deploying the measure, the fiscal policy reaction of other economies closely related to the first economy, and the response and available leeway in the monetary policy realm.<sup>1</sup> The purpose of this box is to illustrate the various channels through which these factors influence the effectiveness of fiscal policy. To this end, the stochastic general equilibrium model developed in Andrés et al. (2020)<sup>2</sup> is used and the economy's response to a temporary fiscal stimulus, such as that being implemented in most of the countries affected by the COVID-19 pandemic, is analysed under various scenarios.

The model considers a monetary union comprising two countries: one with a high public debt/GDP ratio and another with a more contained level of debt. In this outline of the euro area, the European Central Bank (ECB) sets monetary policy by adjusting the nominal interest rate based on developments in inflation and activity in the euro area as a whole. Each country decides its fiscal policy independently but follows a common budget rule. This rule is an automatic arrangement whereby deviations from each country's deficit and debt thresholds laid down in the EU's Stability and Growth Pact (of 3% of GDP and 60% of GDP, respectively) are corrected gradually over time. Lastly, the two countries cover their net borrowing in each period by issuing government debt.

A key aspect of the model is that issuance costs depend on the sustainability of public finances in each economy. For instance, if the public debt/GDP ratio of a country stands considerably above 60%, investors may consider that there is some risk that the State does not have enough funds to finance this debt and, consequently, they demand a risk premium that is higher than the interest

rate which would be compatible with the nominal policy rates set by the common monetary authority. Where, by contrast, the deficit and debt are relatively low, investors do not usually require a positive yield spread and the Treasury of said country can finance itself at the interest rate in keeping with the policy rate set by the central bank. According to the calibration used in the model, an economy has sufficient fiscal space to avoid paying a risk premium on its new issues when its debt/GDP ratio is below 70% of GDP.

In this model, a temporary increase in public spending, such as that arising from the measures adopted to combat the effects of the COVID-19 pandemic, in a country in the monetary union stimulates activity in the short term. Nevertheless, the scale and persistence over time of this stimulus crucially hinges on the monetary policy response, the available fiscal space (which affects the risk premium level) and the fiscal measures adopted in the rest of the union, as illustrated in the simulation exercises below. Bearing in mind that the model used constitutes a highly simplified representation of the various arrangements operating in a monetary union, these simulations should be assessed essentially from a qualitative standpoint.<sup>3</sup>

Chart 1.1 depicts the reaction of the GDP of a country with a small fiscal space to a temporary increase in public spending of around 2.5% of GDP, under two different scenarios of monetary policy response<sup>4</sup>. In particular, the solid line shows changes in GDP where monetary policy operates under normal circumstances (which differ from current circumstances in the euro area) in which the central bank reacts to any rise in inflation by raising its interest rates in line with its conventional rule. In this case, the expansionary effects of fiscal policy peter out relatively rapidly. This outcome is due to increased activity in the short term, on account of the effect of the fiscal stimulus,

1 At the theoretical level, see, for example, Christiano, L., M. Eichenbaum and S. Rebelo (2011). "When is the government spending multiplier large?", *Journal of Political Economy*, 119(1), 78-121, The University of Chicago. From an empirical standpoint, see, for example, 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, American Economic Association. The interactions between monetary and fiscal policies in the context of a monetary union with asymmetrical economies, such as the euro area, have been studied in Arce, O., S. Hurtado and C. Thomas "Policy Spillovers and Synergies in a Monetary Union", *International Journal of Central Banking*, 2016, Vol. 12, No 3, pp. 219-277.

2 Andrés, J., P. Burriel, and W. Shen (2020). "Debt sustainability and fiscal space in a heterogeneous monetary union: normal times vs the zero lower bound", *Working Paper*, No 2001, Banco de España.

3 In particular, the model does not contemplate the effects that the ECB's current sovereign debt purchase programme may have on the risk premium of each country, or on the fragmentation of the monetary policy transmission mechanism.

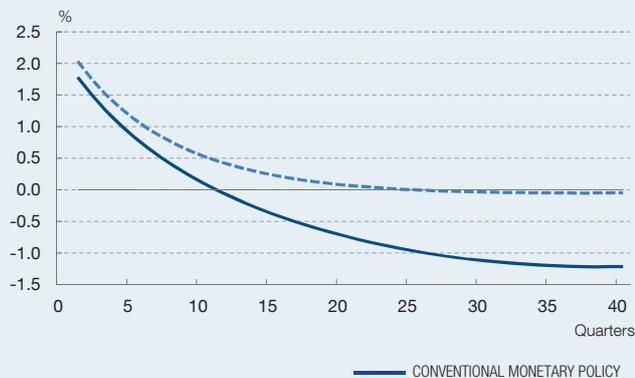
4 It is assumed that in these two years the other country, which is a member of the monetary union and has larger fiscal space, does not undertake any discretionary fiscal stimulus.

**THE IMPORTANCE OF AN INTERNATIONALLY COORDINATED FISCAL POLICY RESPONSE AND ITS INTERACTION WITH MONETARY POLICY** (cont'd.)

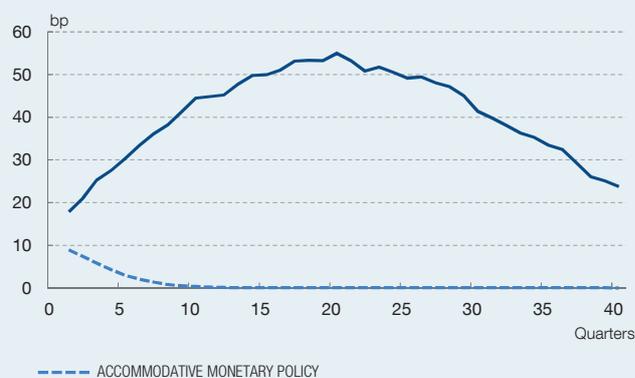
Fiscal stimulus has a greater impact on activity where it is implemented with a higher degree of international coordination and where the monetary policy reaction is accommodative and more fiscal space is available.

**Chart 1**  
RESPONSE OF A COUNTRY WITH A SMALL FISCAL SPACE TO A TEMPORARY INCREASE IN ITS PUBLIC SPENDING BASED ON MONETARY POLICY REACTION

1.1 GDP OF A COUNTRY WITHOUT FISCAL SPACE

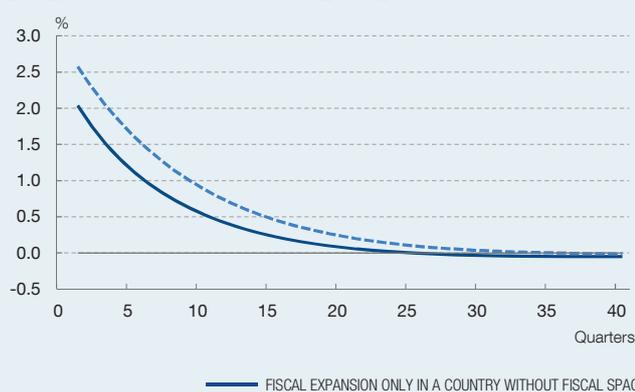


1.2 SOVEREIGN RISK PREMIUM OF A COUNTRY WITHOUT FISCAL SPACE



**Chart 2**  
RESPONSE OF A COUNTRY WITH A SMALL FISCAL SPACE TO A TEMPORARY INCREASE IN PUBLIC SPENDING IN THE EURO AREA AS A WHOLE

2.1 GDP OF A COUNTRY WITHOUT FISCAL SPACE

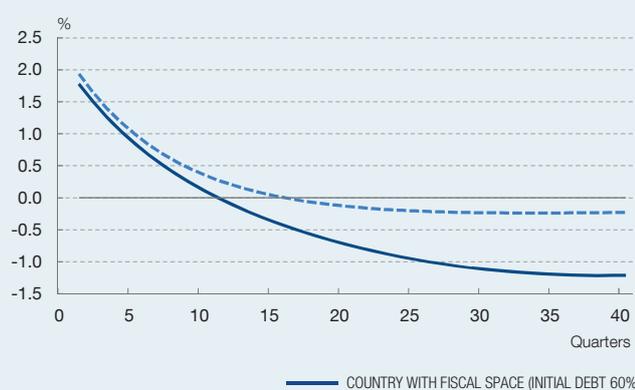


2.2 SOVEREIGN RISK PREMIUM OF A COUNTRY WITHOUT FISCAL SPACE

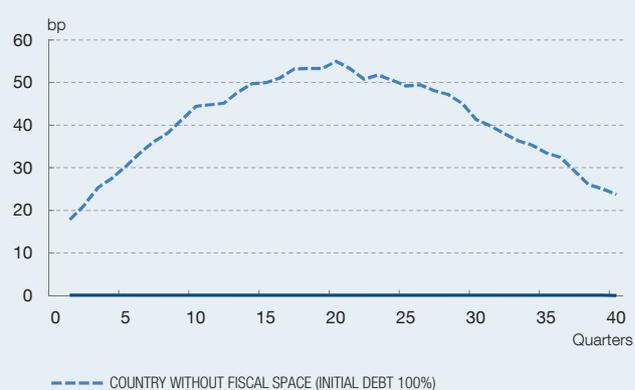


**Chart 3**  
RESPONSE OF A COUNTRY TO A TEMPORARY INCREASE IN ITS PUBLIC SPENDING BASED ON THE AVAILABLE FISCAL SPACE

3.1 GDP



3.2 SOVEREIGN RISK PREMIUM



**SOURCE:** Banco de España calculations using the model described in Andrés, Burriel and Shen (2020).

a The variables are presented as differences with respect to the baseline scenario.

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exerting upward pressure on prices, which leads the central bank to raise policy interest rates. This, in turn, causes inflation to ease but, at the same time, it acts as a drag on buoyant activity, resulting in tighter financial conditions for the public and private sectors. Furthermore, fiscal expansion significantly increases the – already high – deficit and public debt ratios. That prompts a rise in the risk premium required by investors, which has an additional adverse effect on activity (see the solid line in Chart 1.2).

The broken lines in Charts 1.1 and 1.2 show the reaction of the selected variables where monetary policy maintains an accommodative stance and does not react to greater inflationary pressure. The foregoing provides the best description of the current situation in the euro area, in the sense that the persistence of systematically lower inflation rates than the medium-term price stability target (represented by an inflation rate below, but close to, 2%) makes a response from the monetary authority unnecessary. Thus, higher prices would trigger a decline in the real interest rate, which would have a greater positive impact on activity in both the short and medium term. At the same time, maintaining policy interest rates unchanged would result in an easing of the real cost of financing the debt of the country with a small fiscal space, which in turn would limit the increase in the risk premium.

Charts 2.1 and 2.2 show how the responses of GDP and the risk premium change when the same temporary fiscal stimulus considered above is deployed in the rest of the monetary union. In particular, the solid lines depict the performance of the selected variables where the aggregate formed by the other euro area countries does not implement any discretionary fiscal stimulus, whereas the broken lines relate to a scenario in which the increase in public spending in these countries is similar to that implemented, on average, in the euro area during this crisis (3.5% of GDP according to the Eurosystem's estimate<sup>5</sup>). It is assumed that in these two years the ECB does not tighten monetary policy in response to these fiscal measures, as in the second case described above.<sup>6</sup> As can be seen in these charts, if public spending were to

be increased simultaneously across all the countries in the monetary union, its expansionary effect on the economy without fiscal space would be greater. First, coordinated fiscal stimulus would generate greater inflationary pressure, which, against a background of accommodative monetary policy, would lead to a sharper decline in real interest rates. Second, growth of activity in the rest of the euro area would also stimulate domestic activity through a rise in exports. Both aspects would improve the outlook for the public finances of this country, which would help to reduce the risk premium and, in turn, amplify the expansionary effect of this fiscal measure.

Lastly, Charts 3.1 and 3.2 show the extent to which the effectiveness of fiscal policy is influenced by the fiscal space available in each country. In particular, the solid lines in these charts match a scenario in which only a country with a small fiscal space (with a debt level of approximately 100% of GDP) implements a temporary fiscal stimulus and in which there is a conventional monetary policy response. Therefore, these lines coincide with the solid lines in Chart 1. By contrast, the broken lines show what the reaction of the economy would be to this fiscal impulse in a euro area Member State with a public debt/GDP ratio of 60%. As can be observed in Chart 3, as a result of the risk premium's endogenous response to public debt dynamics, fiscal policy is substantially more effective the lower the starting point of public debt and, consequently, the greater the fiscal space available.

In short, the results presented in this box underline the aggregate positive effects for the monetary union, as a whole, where a coordinated fiscal policy response is implemented across its economies. In a setting in which certain countries' fiscal space is relatively limited, international coordination may require supranational institutions to play a preeminent role. Furthermore, accommodative monetary policy, such as that deployed by the monetary authorities in the vast majority of countries affected by the pandemic, also contributes to increasing the effectiveness of the expansionary fiscal policy response.

<sup>5</sup> See Eurosystem staff macroeconomic projections for the euro area, June 2020.

<sup>6</sup> Therefore, the broken lines in Chart 1 coincide with the solid lines in Chart 2.