# *Discussion*

Robert Hall began the discussion by raising concerns about the dependency of modern macroeconomics on the Calvo mode. He viewed the New Keynesian formulation of nominal rigidities as a mechanical and arbitrary set-up of price adjustment. He urged that more work be done on developing a workable model of inflation.

Olivier Blanchard disagreed with Robert Hall's comments about there not being a workable model of inflation. Instead, he argued that the Phillips curve is still present, but has changed over time. Specifically, he believed that the curve now has a very small slope, and there has also been a change in inflation expectation formation over time. He agreed with the general sentiment that it is important to have accurate models of inflation, and that inflation dynamics may not be fully captured by the Calvo model.

Moritz Schularick reiterated Harald Uhlig's discussion of the paper in which he raised concerns about political economy issues. Specifically, he noted that it is very difficult to increase fiscal spending in Germany. The German legislative constitution states that Germany must have a balanced budget, even at the peak of the crisis. Having a deficit to finance fiscal spending requires a declaration of national emergency, which may trigger uncertainty and undesirable political effects. He questioned whether a fiscal deficit in Germany is actually a feasible policy option.

Olivier Blanchard responded to Moritz Schularick's political economy concerns. He agreed that substantially larger fiscal spending in Germany is clearly a second- or third-best policy option, and is also politically infeasible. He believes that the first-best solution would be to have a fiscal union and institutions that would allow for a direct fiscal


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expansion in some other countries rather than Germany. He believes that the main issue is how to increase spending where it is needed without causing investors to become alarmed. This could be achieved via a fiscal union. However, even if it is not possible to establish a fiscal union, he believes it is still possible to do fiscal expansions in the periphery countries, in Italy and Spain for instance, without alarming investors if the expansion occurred via growth-enhancing measures rather than infrastructure investment.

Pierre-Olivier Gourinchas followed up with comments on the German constituent rule and debt brake, which was voted on in 2009 and came into effect in 2016. In the past, if a country's currency was pegged to the Germany currency, then the country would experience an appreciation in their real exchange rate if they did not meet the Germans' low inflation rates. The appreciation could eventually turn into a crisis. Therefore, the currency peg effectively forced non-German countries to adopt a low inflation regime. He believes that the constituent rule and debt brake in Germany plays a similar role, encouraging non-German countries to adopt a balanced budget or constituent rule because the debt brake effectively sends a signal that Germany will not bail out countries in the future. He believes that any deviations from this strategy by Germany would undo the signal, which he views as a real constraint on the set of feasible policies in Germany.

Christopher Erceg noted that the authors calibrate the New Keynesian model in a way that is consistent with other studies that have an extremely flat Phillips curve. As a result, the effects on inflation are muted—when the output gap rises by 1 percentage point, inflation rises by about 0.2 percentage points.

Lawrence Christiano questioned why the authors did not see a rise in welfare in their model following an increase in demand in periphery countries, since there is an inefficiently low level of output. He noted that net exports increased, which may be viewed as an investment in future consumption, and wondered if net exports are integrated into the welfare calculations.

Olivier Blanchard made the comment that welfare functions that are derived from the model itself often compound all the weaknesses of the assumptions in the model. However, he believes that there is still something to be learned from these calculations, since conceptually we care about consumption.

He noted that in the model, output and net exports rose in the short run, but consumption remained unchanged. He agreed with Lawrence

Christiano's comment that net exports may be thought of as investment in the future, and therefore affect future welfare. However, he observed that for welfare, it matters when the benefit arrives and agents' willingness to work at that moment. If higher consumption arrives when agents are very happy to work, then there may be welfare gains from shifting consumption to the future. However, if it comes at a time when the economy has nearly returned to steady state, then it is much less attractive because agents need to supply more labor at a time when they are relatively less willing to do so. The intertemporal structure of consumption, therefore, matters for welfare calculations.

Christopher Erceg further added that fiscal stimulus can have long-lasting impacts on welfare because the relative price effects on the core and periphery countries may be very long lived. Specifically, an increase in spending in core countries can result in higher prices in the core countries relative to the periphery countries. The price level in the periphery slowly converges over many years, which means that inflation remains high in the periphery for a while. High inflation results in low real interest rates in the periphery countries, which helps consumption to remain high for a while. As a result, the relative price effects can result in long-lasting welfare benefits for the periphery countries.

Paul Beaudry made the comment that the authors' model does not seem to rely on Keynesian features. He asked whether the model generates most of its results through the hand-to-mouth channel. Christopher Erceg agreed that the model relies more heavily on Keynesian multiplier effects than the response of inflation.

Mark Gertler noted that the authors' model suggests that the currency union is harmful and should be dissolved. However, as discussed already, doing so might not be politically feasible. Gertler instead suggested an intermediate policy, which might be more feasible. The idea is to have the objectives of the ECB vary over time. In normal times, the ECB would target inflation. However, in times of crises the ECB would focus on stimulating the periphery. If that policy led to overheating in the core countries, they could reduce spending.

Christopher Erceg agreed that the policy proposed by Mark Gertler may work well if it is a relatively short-lived liquidity trap. However he emphasized that in a long-run liquidity trap, it may be more complicated.

Fernando Alvarez observed that the discussions have focused on the political constraints in Germany, and wondered about the role of France. Olivier Blanchard noted that between Germany and France, it is clear that Germany is the country with the most political constraints and decision-making ability in terms of fiscal spending. Jesper Lindé agreed with Olivier Blanchard's comment that Germany has more fiscal space than France. France has no fiscal space, since they already have elevated spending levels.