Oil price shocks and current account imbalances within a currency union

Timo Baas[a] *and Ansgar Belke*[b]

Global current-account imbalances have been a vital issue in the international policy debate for over two decades. The IMF and the G7 countries repeatedly pointed out the risks of large imbalances to the world economy's stability. These seem to have materialized in the government debt crisis that hit the European Union, especially the Eurozone, after 2009 and may reemerge with the Covid health crisis after 2020 and the energy crisis after 2022. Imbalances between member states in the Eurozone seem even more worrying, as an adjustment of exchange rates that drives balances back to equilibrium is not available. Instead, real prices and wages have to adjust. The adjustment of wages, however, depends on labor market institutions. As these institutions differ among member states, even symmetric shocks, such as, for instance, oil price shocks, can have asymmetric consequences. In this paper, we focus on oil price shocks, which seem to be among the leading sources of macroeconomic fluctuations.

Essentially, we build a two-country DSGE model of a currency union and show the transmission of oil price shocks on the current account depending on two institutions, the monetary authority, and labor markets. With this approach, we get three major insights:

First, imperfect labor markets decrease the speed of adjustment to a common shock so that it takes more than ten quarters for half of the shock's impact on tradable production and five to eight quarters for half of the shock's impact on employment absorbed. As a result, the foreign country's foreign debt, which we use to measure imbalances, may increase for up to 10 years after the shock.

Second, targeting core inflation in the wake of oil price shocks is an inferior strategy of a currency union's central bank, decreasing the production of tradables twofold and shrinking employment by an additional one-third. However, the foreign country's foreign debt fluctuates one-fifth less, reducing current account imbalances within the currency union, which might benefit an asymmetric monetary union.

Third, labor market institutions can reduce the burden of real adjustments. The more flexible labor markets are, the fewer costs a core inflation monetary policy target imposes. For example, reducing firing and vacancy posting costs, which were the subject of the labor market reforms in a variety of European countries at the end of the 1990s and the beginning of the 2000s, reduces the impact of a positive oil price shock on production. Tradable production fluctuates less by one-sixth, employment by two-thirds, and foreign debt of the foreign country, indicating the sum of current account imbalances, by one-fourth.

According to these findings, oil price shocks could widen current account imbalances in the Eurozone. However, an increase in the flexibility of labor markets may reduce current account imbalances and improve the currency union's internal shock absorption mechanism, but only in small amounts making monetary policy reactions still desirable. In such a setting, the central bank can target either CPI inflation or core CPI inflation, an inflation rate without energy prices. A CPI

a Corresponding author. Department of Economics, Baden-Wuerttemberg Cooperative State University Stuttgart, Herdweg 23/1, D-70174 Stuttgart, Department of Economics, University of Duisburg-Essen, Universitaetsstraße 2, D-45117 Essen, Germany

b Department of Economics, University of Duisburg-Essen, Universitaetsstraße 2, D-45117 Essen, Germany and Institute for the Study of Labor (IZA), Schaumburg-Lippe-Strasse 5-9, D-53113 Bonn, Germany

inflation target is superior in terms of stability of prices, production, and employment but comes at the cost of higher current account imbalances. Instead, a core CPI target reduces the impact of the shock on the current account and debt but leaves higher fluctuations for the other three macroeconomic variables. More flexible labor markets may mitigate these variabilities. Therefore, if reducing internal imbalances is a policy target of the currency union, labor market reforms that increase flexibility should be imposed.