

Project Proposal:

The Interaction of Monetary Policy and Wage Bargaining in the EMU Determination of Employment and Output in an Endogenous Money System

1. Theory

I am going to research how monetary policy and wage contracts interact and jointly determine employment, output and inflation. This question is politically highly significant given the still high level of unemployment in the Euro-area and the public discussion about labour market deregulation. My research project tries to enlighten several important questions: What are the macroeconomic causes of unemployment? In how far would changes in wage bargaining structures caused by labour market reforms influence growth, output and employment? How should monetary policy be conducted in order to maximise growth and employment while keeping prices stable given the Euro-area wage bargaining structures?

Standard macroeconomic textbooks picture a monetary economy as a system that attains full employment equilibrium as long as frictions are absent. In this world, unions and collective bargaining agreements are imperfections which lead to real wages higher than in full employment equilibrium. These excessive real wages are the main cause of unemployment and loss in output. The higher union power, the more excessive is the real wage – and the higher the equilibrium rate of unemployment.

However, a broad strand of literature is more differentiated than this approach. Following the seminal work of Lars Calmfors and John Driffill¹, interest in wage bargaining structures increased. Nowadays, there is a broad range of theoretical and empirical work on the effects of bargaining structures on macroeconomic outcome, modelling an interest of unions in variables such as growth and employment. While these works are excellent in modelling the interaction of different unions, the effects of fragmentation, bargaining level etc., in my opinion they still have a fundamental flaw: They rely on the standard neoclassical macroeconomic model. As I will show in my thesis, both the transmission mechanism of monetary policy as well as the mechanism causing the system to adjust to full employment are not capable to depict real world developments in the Euro-zone as the neoclassical's

¹ CALMFORS, LARS AND JOHN DRIFFILL (1988), "Centralization of Wage Bargaining", *Economic Policy*, 6, pp. 14-61.

assumptions about the nature of money and monetary policy transmission are in stark contrast to reality.

In my work, I will show how the role of wage bargaining structures and monetary policy changes if one works with a macroeconomic model with endogenous money² instead of the standard neo-classical or New classical approach.

As in this approach the central bank does not have the sole responsibility for price stability, but can also influence growth and output while wage bargainers share responsibility for low inflation, a closer co-operation could lead to a higher growth path. This co-operation could be integrated in the EU's macroeconomic policy dialogue. Furthermore, as unions are not only frictions in the way to full employment anymore, labour market deregulation must be seen with different eyes. In a world with endogenous money, an atomic labour market is not necessarily the best solution as it is in the standard textbook approach.

2. Methodology

As in my opinion the main flaw of previous work on my topic stems from questionable basic assumptions in modelling macroeconomic causal chains, my thesis will try to model these chains differently.³ After criticising the standard approach by questioning the basic mechanisms by which the neo-classical world attains equilibrium via the real balance effect and by which monetary policy in this model transmits to the real economy, I will try to present an alternative model based on endogenous money. Since several Post-Keynesian approaches of Anglo-Saxon, French and Italian origin incorporate endogenous money not being net wealth, I will draw heavily from these works in order to construct a macroeconomic framework.

Against this background, I will then try to model the behaviour of unions and the central bank, given their specific aims: The central bank tries to keep inflation low while the unions care for both employment and wages of their members. As both wage bargainers and central bank share responsibility both for inflation and employment, both parties have to take the

² The term *endogenous money* here describes a money which is a) not net wealth to the private sector as it is created by private agents being willing to enter into credit contracts and b) the stock of which cannot be exogenously determined by the central bank without the co-operation of the private and banking sector.

³ That is, in the EPIC-terminology, I chose approach "2.1.4. Modelling" for my work.

other side's reaction into account and signal their behaviour to the other party. Consequently, a game theoretic approach seems to be best suited in order to model the interaction.

I will also try to collect econometric evidence for my theoretical results. As in a system of endogenous money, high nominal wage increases threaten the central bank's goal of maintaining price stability, the central bank is interested in keeping the unions' wage demands low. I will test for post-war Germany whether wage demands (not actual wage contracts) are significant in explaining the Bundesbank interest rate decisions. I chose Germany and the Bundesbank not only because time series for the whole EMU are still too short, but also since Germany is the European Monetary Union's largest economy. With German GDP being roughly a third of EMU-GDP, wage hikes in Germany have a decisive influence on EMU macroeconomic aggregates. Furthermore, the ECB has been constructed with an independence and with monetary policy instruments closely resembling the pre-EMU Bundesbank. Thus conclusions drawn for the Bundesbank can at least within limits and with caution be used to learn about the ECB's behaviour and interaction with wage bargainers in EMU.

I will also conduct the standards tests trying to gather further evidence of money being endogenous. I will use the Granger-approach in order to test whether changes in the money supply "cause" changes in output, prices and interest rates or the other way around. As far as series for EMU are available, I will use them. As far as they are not, I will again use German time series.

Data on monetary and real aggregates can be easily obtained by the Bundesbank or the ECB. Getting data on wage demands might be harder. However, the German WSI⁴, a union-run economic research institute, has a "Tarifarchiv" (archive on wage negotiations and settlements), in which wage bargaining processes and results are well documented so that it should be relatively easy to construct a data series on wage demands and wage settlements.

⁴ Wirtschafts- und Sozialwissenschaftliches Institut, Düsseldorf.