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*International Seminar  
on  
Macroeconomics  
2004*

*edited by Richard H. Clarida, Jeffrey A. Frankel,  
Francesco Giavazzi, and Kenneth D. West*

National Bureau of Economic Research



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**NBER International Seminar  
on Macroeconomics 2004**



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# **NBER International Seminar on Macroeconomics 2004**

Richard H. Clarida, Jeffrey A. Frankel, Francesco Giavazzi,  
and Kenneth D. West, editors

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8. Unless otherwise determined by the Board or exempted by the terms of paragraphs 6 and 7, a copy of this resolution shall be printed in each NBER publication as described in paragraph two above.

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# Abstracts

## **1 The Source of Historical Economic Fluctuations: An Analysis using Long-Run Restrictions**

*Neville Francis and Valerie A. Ramey*

This paper investigates the source of historical fluctuations in annual U.S. data extending back to the late 19<sup>th</sup> century. Long-run identifying restrictions are used to decompose productivity, hours, and output into technology shocks and nontechnology shocks. A variety of models with differing auxiliary assumptions are investigated. The preferred model suggests that the Great Depression was a period in which both types of shocks were very negative. On the other hand, our estimates support the microeconomic evidence of historically large positive technology shocks from 1934 to 1936. Finally, both types of shocks are responsible for the reduction in the variance of output in the post-WWII period.

## **2 Optimal Monetary and Fiscal Policy in a Liquidity Trap**

*Gauti B. Eggertsson and Michael Woodford*

In previous work (Eggertsson and Woodford, 2003), we characterized the optimal conduct of monetary policy when a real disturbance causes the natural rate of interest to be temporarily negative, so that the zero lower bound on nominal interest rates binds, and showed that commitment to a history-dependent policy rule can greatly increase welfare relative to the outcome under a purely forward-looking inflation target. Here we consider in addition optimal tax policy in response to such a disturbance, to determine the extent to which fiscal policy can help to mitigate the distortions resulting from the zero bound, and to consider whether a history-dependent monetary policy commitment

continues to be important when fiscal policy is appropriately adjusted. We find that even in a model where complete tax smoothing would be optimal as long as the zero bound never binds, it is optimal to temporarily adjust tax rates in response to a binding zero bound; but when taxes have only a supply-side effect, the optimal policy requires that the tax rate be *raised* during the “trap,” while committing to lower tax rates below their long-run level later. An optimal policy commitment is still history-dependent, in general, but the gains from departing from a strict inflation target are modest in the case that fiscal policy responds to the real disturbance in an appropriate way.

### **3 Rule-Based Monetary Policy under Central Bank Learning**

*Kosuke Aoki and Kalin Nikolov*

The paper evaluates the performance of three popular monetary policy rules when the central bank is learning about the parameter values of a simple New Keynesian model. The three policies are: (1) the optimal non-inertial rule; (2) the optimal history-dependent rule; (3) the optimal price-level targeting rule. Under rational expectations rules (2) and (3) both implement the fully optimal equilibrium by improving the output-inflation trade off. When imperfect information about the model parameters is introduced, it is found that the central bank makes monetary policy mistakes, which affect welfare to a different degree under the three rules. The optimal history-dependent rule is worst affected and delivers the lowest welfare. Price level targeting performs best under learning and maintains the advantages of conducting policy under commitment. These findings are related to the literatures on feedback control and robustness. The paper argues that adopting integral representations of rules designed under full information is desirable because they deliver the beneficial output-inflation trade-off of commitment policy while being robust to implementation errors.

### **4 The Comovement of Returns and Investment within the Multinational Firm**

*Mihir A. Desai and C. Fritz Foley*

Can financial integration, particularly the cross-border investments of multinational firms, help explain the synchronization of business

cycles? This paper presents evidence on the comovement of returns and investment within U.S. multinational firms to address this question. These firms constitute significant fractions of economic output and investment in most large economies, suggesting that they could create significant economic linkages. Aggregate measures of rates of return and investment rates of U.S. multinational firms located in different countries are highly correlated across countries. Firm-level regressions demonstrate that rates of return and investment rates of affiliates are highly correlated with the rates of return and investment of the affiliate's parent and other affiliates within the same parent system, controlling for country and industry factors. The evidence on these interrelationships and the importance of multinationals to local economies suggests that global firms may be an important channel for transmitting economic shocks. This evidence also sheds light on asset pricing puzzles related to the diversification benefits provided by multinational firms.

## **5 How Do Monetary and Fiscal Policy Interact in the European Monetary Union?**

*Matthew B. Canzoneri, Robert E. Cumby, and Behzad T. Diba*

Formation of the Euro area raises new questions about the coordination of monetary and fiscal policy. Using a New Neoclassical Synthesis (NNS) model, we show that a common monetary policy, responding to area-wide aggregates, has asymmetric effects on countries within the union, depending on whether they are large or small, or whether they have high or low debts. We analyze the implications of these asymmetries for the various countries' welfare and for their fiscal policies. We also study rules for setting national tax and spending rates, rules that constrain movements in the deficit to GDP ratio. We ask whether these rules are necessary for the common monetary policy to be able to harmonize national inflation rates, and we analyze their effects on national welfare. We also discuss some potential failings of our model (and perhaps NNS models generally); in particular, our model's variance decompositions suggest that productivity shocks may play an inordinately large role, while fiscal shocks (or demand shocks generally) may play too small a role (even when "rule of thumb" spenders are added).

## **6 Does it Cost to be Virtuous? The Macroeconomic Effects of Fiscal Constraints**

*Fabio Canova and Evi Pappa*

We study whether and how fiscal restrictions alter the business cycle features of macrovariables for a sample of 48 U.S. states. We also examine the “typical” transmission properties of fiscal disturbances and the implied fiscal rules of states with different fiscal restrictions. Fiscal constraints are characterized with a number of indicators. There are similarities in second moments of macrovariables and in the transmission properties of fiscal shocks across states with different fiscal constraints. The cyclical response of expenditure differs in size and sometimes in sign, but heterogeneity within groups makes point estimates statistically insignificant. Creative budget accounting is responsible for the pattern. Implications for the design of fiscal rules and the reform of the Stability and Growth Pact are discussed.

## **7 Can Endogenous Changes in Price Flexibility Alter the Relative Welfare Performance of Exchange Rate Regimes?**

*Ozge Senay and Alan Sutherland*

A dynamic general equilibrium model of a small open economy is presented where agents may choose the frequency of price changes. A fixed exchange rate is compared to inflation targeting and money targeting. A fixed rate generates more price flexibility than the other regimes when the expenditure switching effect is relatively weak, while money targeting generates more flexibility when the expenditure switching effect is strong. These endogenous changes in price flexibility can lead to changes in the welfare performance of regimes. But, for the model calibration considered here, the extra price flexibility generated by a peg does not compensate for the loss of monetary independence. Inflation targeting yields the highest welfare level despite generating the least price flexibility of the three regimes considered.

## **8 Saving and Cohabitation: The Economic Consequences of Living with One’s Parents in Italy and the Netherlands**

*Rob Alessie, Agar Brugiavini, and Guglielmo Weber*

The paper deals with the effects of cohabitation of grown children with their parents on household saving, using data from Italy and the

Netherlands. It presents a two-period game-theoretical model where the child has to decide whether to move out of the parental home. This decision is affected by transaction costs, the child's preference for independence, and by the consumption loss induced by the move (consumption is a public good while the child lives in the parental home). We show that the child's income share affects the household saving decision, in contrast with predictions of the standard unitary model of household decision making. Empirical results from both countries are supportive of the key model predictions. We find strong positive effects of the child income share on the saving rate in Italy, where we calculate saving as the difference between disposable income and consumption but cannot distinguish children who will leave from those who will stay. We also find some significant effects of the child income share on household saving rate in the Netherlands, where saving is computed as the change over time in financial wealth. In the Dutch data we distinguish between children who stay and children who leave. The effect of the child's income share is significantly negative for those who stay, positive for those who leave.

## **9 Is Poland the Next Spain?**

*Francesco Caselli and Silvana Tenreyro*

We revisit Western Europe's record with labor-productivity convergence and tentatively extrapolate its implications for the future path of Eastern Europe. The poorer Western European countries caught up with the richer ones through both higher rates of physical capital accumulation and greater total factor productivity (TFP) gains. These (relatively) high rates of capital accumulation and TFP growth reflect convergence along two margins. One margin (between industries) is a massive reallocation of labor from agriculture to manufacturing and services, which have higher capital intensity and use resources more efficiently. The other margin (within industries) reflects capital deepening and technology catch-up at the industry level. In Eastern Europe the employment share of agriculture is typically quite large, and agriculture is particularly unproductive. Thus, there are potential gains from sectoral reallocation. However, quantitatively, the between-industry component of the East's income gap is quite small. Therefore, the East seems to have only one real margin to exploit: the within-industry one. Coupled with the fact that within-industry productivity gaps are enormous, this suggests that convergence will take a long time. On the

positive side, however, Eastern Europe already has levels of human capital similar to those of Western Europe. This is good news because human capital gaps have proved very persistent in Western Europe's experience. Hence, Eastern Europe does start out without the handicap that is harder to overcome.