

## ARTICLES

# INTRODUCTION TO THE SPECIAL ISSUE ON GROWTH, OPTIMAL FISCAL AND MONETARY POLICY, AND FINANCIAL FRICTIONS

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Since 1997, the Department of Economics of the University of Crete has organized an annual international conference on macroeconomic analysis and international finance. The articles included in this special issue are refereed versions of papers presented at the 17th International Conference on Macroeconomic Analysis and International Finance held at the University Campus, Rethymno, 30 May–1 June 2013, and submitted to *Macroeconomic Dynamics* in an open call for papers. The central theme of this Special Issue is *Growth, Optimal Fiscal and Monetary Policy, and Financial Frictions*. The topics discussed in this issue are endogenous growth and public investment and taxation; optimal inflation and fiscal and monetary policy; foreign reserve accumulation and China's exchange rate policy; and liquidity shocks and financial frictions. We begin the Special Issue with an overview of these papers.

In “Policy Games, Distributional Conflicts, and Optimal Inflation,” Alice Albonico and Lorenza Rossi show that limited asset market participation (LAMP) generates an extra inflation bias when the fiscal and the monetary authority play strategically. A fully redistributive fiscal policy eliminates the extra inflation bias, but at the cost of reducing Ricardian welfare. A fiscal authority that redistributes income only partially reduces the inflation bias but increases government spending. Although a fully conservative monetary policy is necessary to get price stability, it implies a reduction in liquidity-constrained consumers' welfare, in the absence of redistributive fiscal policies. Finally, under a crisis scenario, none of the policy regimes is able to avoid the fall in economic activity when the increase in the fraction of LAMP is coupled with a negative technology shock,

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whereas optimal policy can avoid recession when it responds to the increase in LAMP proportion alone.

Constantine Angyridis, in his paper “Endogenous Growth with Public Capital and Progressive Taxation,” considers an endogenous growth model with public capital and heterogeneous agents. Heterogeneity is due to differences in discount factors and inherent abilities that allow us to closely approximate the 2007 U.S. income and wealth distributions. Furthermore, it is assumed that government expenditures, including public investment, are financed through a progressive income taxation scheme, along with a flat tax on consumption. The analysis considers three revenue-neutral fiscal policy reforms: (i) an increase in the degree of progressivity of the tax schedule that reduces the after-tax income distribution Gini coefficient to its lowest value over the 1979–2009 period, (ii) a reduction in the progressivity ratio that causes the Gini coefficient of the wealth distribution to get close to 1, and (iii) an increase in the fraction of output allocated to public investment that has the same positive impact on the growth rate as reform (ii). The main findings of the paper show that increasing investment in public capital is the only type of policy that simultaneously enhances growth and reduces both types of inequality (income and wealth). Moreover, the analysis concludes that the public-investment-to-output ratio that maximizes social welfare crucially depends on the elasticity of the labor supply.

Gong Cheng, in “A Growth Perspective on Foreign Reserve Accumulation,” analyzes the relationship between productivity growth, financial underdevelopment, and foreign reserve accumulation in emerging market economies. The analysis is conducted based on a dynamic open-economy macroeconomic model. The demand for foreign reserves is derived from the interaction between positive productivity shocks, borrowing constraints, and the lack of domestic financial assets. Foreign reserve accumulation can thus be regarded as part of a catching-up strategy in an economy with an underdeveloped financial market. In fact, if domestic firms are credit-constrained, domestic saving instruments are necessary to increase their retained earnings in order to invest in capital. The central bank plays the role of a financial intermediary and provides domestic firms with liquid public bonds while investing the bond proceeds abroad in the form of foreign reserves. It is also shown that during the economic transition, the social welfare in an economy where the central bank accumulates foreign reserves and imposes capital controls is higher than in a financially liberalized economy. By controlling private capital flows, the central bank can not only provide sufficient domestic liquid assets by investing abroad in foreign reserves, but also adjust the domestic interest rate to cope with positive productivity shocks.

In “Firm Dynamics, Endogenous Markups, and the Labor Share,” Andrea Colciago and Lorenza Rossi argue that the recent U.S. evidence that suggests that the response of labor share to a productivity shock is characterized by countercyclicality and overshooting cannot be reconciled with existing business cycle models. The authors extend the Diamond–Mortensen–Pissarides model of search in the labor market by considering strategic interactions among an endogenous number

of producers, which leads to countercyclical price markups. Moreover, the analysis argues that although Nash bargaining delivers a countercyclical labor share, that countercyclical markups are fundamental to address the overshooting. Finally, they show that real wage rigidity does not seem to play a crucial role in the dynamics of the labor share of income.

Harris Dellas, Behzad Diba, and Olivier Loisel, in "Liquidity Shocks, Equity-Market Frictions, and Optimal Policy," study the positive and normative implications of financial shocks in a standard New Keynesian model that includes banks and frictions in the market for bank capital. They show how such frictions influence the effects of bank liquidity shocks and the properties of optimal policy materially. In particular, they limit the scope for countercyclical monetary policy in the face of these shocks. A fiscal policy instrument can complement monetary policy by offsetting the balance-sheet effects of these shocks, and jointly optimal policies attain the same equilibrium that monetary policy (alone) could attain in the absence of equity-market frictions.

In "U.S. Trend Inflation Reinterpreted: The Role of Fiscal Policies and Time-Varying Nominal Rigidities," Giovanni di Bartolomeo, Patrizio Tirelli, and Nicola Acocella provide a reinterpretation of the Fed's time-varying implicit inflation target, based on two considerations. The first is that the need to alleviate the burden of distortionary taxation may justify the choice of a positive inflation rate. The second is based on compelling evidence that the degree of price and wage indexation falls with trend inflation. The analysis leads to the conclusion that a proper characterization of the joint evolution of fiscal variables and nominal rigidities has a strong impact on the Ramsey optimal policies, implying optimal inflation dynamics that are consistent with the observed evolution of U.S. trend inflation. In contrast, tax policies have been too lax, especially at the time of the controversial Bush tax cuts.

Francesca D'Auria, in her paper "The Effects of Fiscal Shocks in a New Keynesian Model with Useful Government Spending," develops an extension of the standard dynamic general equilibrium model with price and wage rigidities in order to account for recent evidence on the response of macroeconomic variables to fiscal shocks. The model is augmented with two features: consumer preferences depend on government expenditures and public capital is productivity-enhancing. The model is based on a set of simulations considering alternative monetary policy rules and plausible assumptions on the degree of complementarity between private and public expenditures and on the output elasticity of public spending. The main finding of the analysis is that the effects of fiscal shocks predicted by the model are in line with the empirical evidence.

In "Fiscal Multipliers in a Monetary Union under the Zero-Lower-Bound Constraint," Stefanie Flotho analyzes government spending multipliers in a two-country model of a monetary union with price stickiness and home bias in consumption where monetary policy is constrained by the zero lower bound (ZLB) on the nominal interest rate. The analysis deals with the computation of government spending multipliers under this constraint and their comparison to fiscal multipliers

in normal times; that is, the central bank sets the nominal interest rate via a Taylor rule. Furthermore, the trade elasticity and the parameter measuring home bias in consumption play an important role in determining the size of the multiplier. The author argues that the multipliers are not necessarily large under the ZLB constraint. However, compared with the fiscal multipliers when the central bank sets the nominal interest rate according to a Taylor rule, the multipliers under the ZLB are bigger. Moreover, the persistence parameter of the binding ZLB plays a crucial role.

Cecilia García-Peñalosa and Stephen J. Turnovsky, in “Income Inequality, Mobility, and the Accumulation of Capital,” examine the determinants of income mobility and inequality in a Ramsey model with elastic labor supply and heterogeneous wealth and ability (labor endowment). Both agents with lower wealth and agents with greater ability tend to supply more labor, implying that labor supply decisions may have an equalizing or unequalizing effect, depending on the relative importance of the two sources of heterogeneity. Moreover, these decisions are central to the extent of mobility observed in an economy. The relationship between mobility and inequality is complex. For example, a reduction in the interest rate and an increase in the wage rate reduce capital income inequality and allow upward mobility of the ability-rich. However, the increase in the labor supply of high-ability agents in response to higher wages raises earnings dispersion and thus has an offsetting effect. As a result, high mobility can be associated with an increase or a decrease in overall income inequality.

In the final paper of this Special Issue, “Green Spending Reforms, Growth, and Welfare with Endogenous Subjective Discounting,” Eugenia Vella, Evangelos Dioikitopoulos, and Sarantis Kalyvitis study the effectiveness of optimal fiscal policy, in the form of taxation and the allocation of tax revenues between infrastructure and environmental investment, in a general-equilibrium growth model with endogenous subjective discounting. A green spending reform, defined as a reallocation of government expenditures towards the environment, can procure a double dividend by raising growth and improving environmental conditions, although the environment does not impact the production technology. Also, endogenous Ramsey fiscal policy eliminates the possibility of an “environmental and economic poverty trap.” Contrary to the case of exogenous discounting, green spending reforms are the optimal response of the Ramsey government to a rise in the agents’ environmental concerns.