## Organizers' Introduction: Twenty-Five Years of Study Center Gerzensee

The papers contained in this issue of the *JMCB* were written to commemorate the 25th anniversary of the opening of the Study Center Gerzensee, a foundation of the Swiss National Bank. The Study Center is an international teaching and research institution. In collaboration with leading international academics, it offers courses for central bank staff from all over the world, runs a doctoral program in economics, and organizes academic conferences.

All papers contained in the issue were contributed by academics with a long-standing teaching association with the Center and were presented at a conference in Gerzensee in October 2011. The papers are in the area of macroeconomics and are quite representative of the diversity of the interests of the teaching staff of the Center.

Job creation in the U.S. following the trough of the great recession has been weak. In "Slow Recoveries: A Structural Interpretation," Jordi Galí, Frank Smets, and Rafael Wouters examine to what extent this pattern characterizes post war recessions (as identified by the NBER) and whether it is associated with a particular pattern of recovery of GDP. Their main empirical finding is that while employment has recovered more slowly during the post-1990 recessions relative to the previous ones, this has gone hand in hand with a slow recovery of output too. On the basis of this evidence, they claim that the main feature of the recent recessions is not that the economy does not create enough jobs as it grows out of a recession (jobless recovery), but rather that growth itself is anemic.

Galí et al. then use the Galí–Smets–Wouters estimated, New Keynesian macro-economic model in order to evaluate alternative hypotheses regarding the causes and nature of the recent slow recoveries, thus providing a structural interpretation of them. As the main cause of the difference in recovery growth rates across recessions, the authors identify the divergent pattern in the behavior of shocks during the recovery itself (the "recovery shocks"), rather than structural change in the U.S. economy. For instance, Galí et al. argue that negative risk premium and investment-specific technology shocks contributed to the significantly slower recovery during the recent Great Recession. Whether this reflects financial factors (such as the S&L crisis in the early 1990s and the subprime mortgage crisis in 2007–08) is an open and intriguing question that deserves further investigation.

It is widely accepted that the impact of business cycle shocks on employment and total hours worked varies across groups in the labor market. Does this differential matter for the properties of business cycle fluctuations? In "Screening and Labor Market Flows in a Model with Heterogeneous Workers," Federico Ravenna and Carl Walsh study the role of endogenously changing heterogeneity in the pool of unemployed for aggregate employment and the business cycle. In their model, workers are heterogeneous in terms of skill, and skill is unobserved but can be revealed when a job candidate is screened following a job posting. The incentive to post a vacancy depends on the skill composition of the pool of unemployed. Consequently, an aggregate shock that affects the share of low skilled in the pool of unemployed alters the incentives of firms to post vacancies and has an additional effect on the aggregate job finding and unemployment rates. This additional effect (the composition effect) has the potential to enhance the model's ability to account for the volatility and persistence of aggregate labor market variables.

A central contribution of the paper lies in its characterization of the conditions under which this composition effect is quantitatively significant. Ravenna and Walsh show that in an economy with large steady-state flows between employment and unemployment (such as in the U.S.), the skill composition of the unemployed does not change much over the business cycle and the composition effect is a minor contributor to the volatility of unemployment. Recessions associated with more persistent shocks trigger a larger composition effect and thus exhibit a slower recovery of employment. A fall in productivity has a stronger composition effect and consequently, effect on unemployment if it hits disproportionately low-skill workers (such as a skill-biased technology shock).

"Aggregate Investment Externalities and Macroprudential Regulation" by Hans Gersbach and Jean-Charles Rochet presents a model of excessive fluctuations in bank-financed investment over the business cycle. In the model, banks invest too little during recessions, and somewhat more during expansions. When a bad shock in a sector financed by banks reduces the rate of return on capital in that sector banks respond by trying to sell their capital in the adversely affected sector and to relocate capital to other sectors. Fire sales exert a negative pecuniary externality on other banks and the original shock is amplified by the behavior of the intermediation sector. As a consequence, investment is excessively volatile, the competitive equilibrium is inefficient and macroprudential regulation can improve welfare.

The authors discuss specific policy measures that could mitigate this problem. One option is to impose a regulatory lower bound on short-term debt, that is, a constraint on the liquidity ratio as envisaged by Basel III. Another, less direct approach involves the imposition of a binding capital requirement that would only be enforced during booms. Both measures have the effect that they limit the relocation of capital across sectors, and thus the movements in asset prices and the severity of the associated pecuniary externality.

In "Inflation and Unit Labor Cost," Robert King and Mark Watson try to shed light on the determinants of inflation in the U.S. through the lens of two popular

specifications of the New Keynesian Phillips curve (NKPC). The first specification involves the "hybrid" version of NKPC in which inflation depends on lagged and expected future inflation, real unit labor cost, and a residual (the standard cost-push term). The second specification relates inflation to fundamental inflation (the present discounted value of expected future real unit labor costs) and a residual. King and Watson show that the DSGE model of Smets and Wouters (SW) produces a realistic relationship between inflation and transitory shocks to marginal costs and expected inflation. At the same time, the SW model produces a series for fundamental inflation that differs markedly from that of actual inflation. The mismatch arises because the measure of real unit labor cost employed by Smets and Wouters has a strong downward trend; mimicking actual inflation thus requires the introduction of large price markup shocks that are negatively correlated with real unit labor cost. But as the authors find that all measures of real unit labor costs display major downward trends that are not accompanied by similar trends in inflation, they argue that the behavior of labor costs (or, equivalently, of labor share in national income) is influenced by real factors that have little to do with inflation. Tracing the sources of these changes and their implications for the specification of the Phillips curve seems to be an important research question.

In "The Federal Reserve, the Emerging Markets, and Capital Controls: A High-Frequency Empirical Investigation," Sebastian Edwards examines two important empirical questions regarding the international transmission of monetary policy (and thus, to the extent that monetary policy is an important determinant of economic activity and inflation, of business cycles): To what extent are changes in the Federal Funds Rate transmitted to interest rates in emerging markets economies? And, do capital controls temper this transmission and insulate countries from changes in world interest rates, as predicted by standard theory? Edwards estimates a series of panel vector error correction models using a novel high-frequency data set spanning the 2000s for seven emerging countries, four in Latin America and three in Asia. The analysis examines the effect of a change in the U.S. interest rate on the domestic rate, holding constant inflation expectations and risk premia. The findings indicate considerable asymmetry across world regions: A permanent 50 bp hike in the U.S. federal funds rate raises domestic interest rates upon impact by 5.3-6.3 bp in Asia but only by 1.5-3.0 bp in Latin America, and in the long-run by 48-58 bp in Asia but only by 28–32 bp in Latin America. Remarkably, the existence of capital controls does not seem to make a difference for the transmission of world interest rate shocks. This finding is intriguing and requires further scrutiny, both on the empirical and theoretical front as it contradicts conventional wisdom in international monetary economics.

In "Withering Government Spending Multipliers," Matthew Canzoneri, Fabrice Collard, Harris Dellas, and Behzad Diba address a focal point of current policy debates, namely, the effectiveness of fiscal policy. Governments routinely pursue countercyclical fiscal policy as a means of stabilizing economic activity. The latest massive—stimulus package in the U.S. as well as large fiscal interventions in other countries at the height of the Great Recession are typical examples. Standard economic theory suggests that the multipliers associated with government spending are rather small. But the empirical evidence suggests that multipliers used to be larger and have declined in size only during the last couple of decades. Canzoneri et al. propose an explanation for this time evolution that relies on a model with imperfect information where agents face a signal extraction problem. They argue that, as in the standard IS-LM model, multipliers can be high (exceed unity) under a fixed exchange rate regime due to accommodative monetary policy but are much smaller under a flexible exchange rate system, even when monetary policy is accommodative. The authors argue that the observed reduction in the size of multipliers over time can mostly be explained by the change in the international monetary arrangement and that greater globalization (an increase in the degree of trade openness as well as higher capital mobility) has also contributed to this decline. The authors also give an explanation for another hard-to-reproduce feature associated with fiscal policy, namely, the positive association between fiscal shocks and consumption.

In "Asymmetries in Price-Setting Behavior: New Microeconometric Evidence from Switzerland," Bo Honoré, Daniel Kaufmann, and Sarah Lein propose a new estimation strategy to identify (S, s)-type pricing rules. The new strategy accommodates unobserved heterogeneity and relaxes distributional assumptions on the adjustment thresholds that characterize (S, s) rules. Applying their strategy to Swiss microprice data, the authors ask whether asymmetries in the frequency of price changes can be explained by aggregate inflation, sectoral relative price trends, or asymmetries in sector-specific shocks. The findings suggest an important role for the former two explanations. In spite of low aggregate inflation in Switzerland, the rising price level significantly contributes to the asymmetries in price setting and together with relative price trends, explains a substantial share of the asymmetries. The authors also find evidence of large sectoral heterogeneity in relative price trends. In contrast, there are no indications for major asymmetries as far as the reactions to positive and negative sector-specific shocks are concerned.

The paper "Macroeconomic Shocks and Banking Regulation" by Mathias Dewatripont and Jean Tirole discusses Basel I/II/III banking regulation measures when bank manager actions are noncontractable and there is a role for outside investors in disciplining management. In Dewatripont and Tirole's model, a managerial moral hazard problem renders it optimal to discipline managers through performance contingent bank control rights. The model offers a justification for debt and outside equity as contingent control devices. After bad performance, control shifts from equity holders to debt holders unless equity holders recapitalize the bank

The authors use their model to evaluate the properties of actual banking regulations. They argue that Basel I/II regulation fails to cope with macroeconomic shocks as it is too tough during recessions but rather soft during booms. Similarly, forbearance (allowing banks to move required capital ratios in a procyclical fashion) is problematic because it leaves banks with little skin in the game and encourages them to gamble for resurrection. Dewatripont and Tirole view Basel III as more promising and argue that capital insurance or CoCos, both conditioned on the macroeconomic environment,

constitute appropriate instruments for dealing with macroshocks. Who could provide such an insurance, and how remains an important, open issue.

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