Research Summary

Jiri Slacalek*

1 Dynamics of Consumption and Saving

The first strand of my research explores various aspects of the dynamics of consumption and saving, *both from the aggregate point of view and focussing on household heterogeneity.*

My new work on the US personal saving rate is motivated by its persistent rebound in the past three years and by considerations about its expected future path. In particular, Carroll and Slacalek (2009), Carroll, Slacalek, and Sommer (in progress) and Slacalek and Sommer (in progress) use theoretical and empirical models of saving to estimate the effects of three factors: a substantial drop in asset prices, an extraordinary increase in financial and macroeconomic uncertainty and a considerable tightening of credit supply. The results suggest that the first two factors played an important role during the Great Recession and that the U.S. personal saving rate will likely remain for a considerable time in the neighborhood of the 5–7 percent range.

Carroll, Slacalek, and Tokuoka (2011b) solve, simulate and estimate a model with aggregate and idiosyncratic uncertainty and (modest) heterogeneity in discount factors, which can realistically match the observed wealth distribution in the U.S. In contrast to much of the previous theoretical literature, the model implies substantially higher and substantially more plausible average marginal propensity to consume out of transitory income shocks of roughly 0.3. The model can be used to answer questions about e.g. the distributional effects of an economic stimulus program.

While consumption growth in *macro* data has a substantial positive autocorrelation, in *micro* data it is close to a white noise. Carroll, Slacalek, and Tokuoka (2011c) propose a model that reconciles this stylized fact by introducing consumers with sticky expectations about macroeconomic developments. These people have individually random walk consumption similarly to Hall (1978). However, aggregating these consumers results in substantial autocorrelation in aggregate consumption growth.

Carroll, Slacalek, and Sommer (forthcoming) estimate the degree of 'stickiness' in aggregate consumption growth for thirteen advanced economies. We find that, after controlling for measurement error, consumption growth has a high degree of autocorrelation, with a stickiness parameter of about 0.7 on average across countries. The sticky-consumption-growth model outperforms the random walk model of Hall (1978), and typically fits the data better than the popular Campbell and Mankiw (1989) model, though in a few countries the sticky-consumption-growth and Campbell–Mankiw models work about equally well.

*Directorate General Research, European Central Bank, jiri.slacalek@ecb.europa.eu, www.slacalek.com, this version: November 25, 2011.

2 Housing and the Wealth Effect on Consumption

In a series of papers I estimate the effect of changes in wealth on personal consumption in the US and international data, using a new econometric methodology based on the stickiness of aggregate consumption growth.

Carroll, Otsuka, and Slacalek (2011a) estimate in US data that the immediate marginal propensity to consume from a $1 change in housing wealth is about 2 cents, with an eventual effect of 9 cents, substantially larger than the effects of shocks to financial wealth. Slacalek (2009) finds in a panel of 16 countries that the eventual marginal propensity to consume out of total wealth is typically around 5 cents. There are substantial differences among individual countries: the wealth effects are more powerful in market-based, Anglo–Saxon and non-euro area economies. The effect of housing wealth is somewhat smaller than that of financial wealth for most countries, but not the US and the UK. The housing wealth effect has risen substantially after 1988 as it has become increasingly easier to borrow against housing wealth.

3 Expectations

Finally, my research investigates the behavior of expectations of various economic agents about macroeconomic variables.

Döpke, Dovern, Fritsche, and Slacalek (2008b) estimate the sticky information Phillips curve model of Mankiw and Reis (2002) using survey expectations of professional forecasters from four major European economies. Our estimates imply the inflation expectations in France, Germany and the United Kingdom are updated about once a year, in Italy about once each six months.

In Döpke, Dovern, Fritsche, and Slacalek (2008a) we use survey data to estimate a simple model of household inflation expectations in four major European economies. We argue that household inflation expectations are adequately captured with a model of Carroll (2003) in which households occasionally update information about inflation using experts' predictions. The learning intensity is estimated to be about once in 12–18 months.

Dovern, Fritsche, and Slacalek (forthcoming) investigate determinants of disagreement (cross-sectional dispersion of forecasts) about six key economic indicators in the Consensus Economics dataset with individual expert forecasts from G7 countries. Disagreement about real variables (GDP, consumption, investment and unemployment) has a distinct dynamic from disagreement about nominal variables (inflation and interest rate). Disagreement about real variables intensifies strongly during recessions, including the current one (by about 40 percent in terms of the interquartile range). Disagreement about nominal variables rises with their level, has fallen after 1998 or so (by 30 percent), and is considerably lower under independent central banks (by 35 percent). These findings suggest that more credible monetary policy can substantially contribute to anchoring of expectations about nominal variables; its effects on disagreement about real variables are moderate.

References

Campbell, John Y., and N. Gregory Mankiw (1989), "Consumption, Income and Interest Rates: Reinterpreting the Time Series Evidence," in Olivier J. Blanchard and Stanley Fischer, editors, *NBER Macroeconomics Annual*, MIT Press, Cambridge, MA.

Carroll, Christopher D. (2003), "Macroeconomic Expectations of Households and Professional Forecasters," *Quarterly Journal of Economics*, 118(1), 269–298.

Carroll, Christopher D., Misuzu Otsuka, and Jiri Slacalek (2011a), "How Large Are Financial and Housing Wealth Effects? A New Approach," *Journal of Money, Credit, and Banking*, 43(1), 55–79.

Carroll, Christopher D., and Jiri Slacalek (2009), "The American Consumer: Reforming, or just Resting?" working paper 12, Center for Financial Studies, Goethe University, Frankfurt.

Carroll, Christopher D., Jiri Slacalek, and Martin Sommer (forthcoming), "International Evidence on Sticky Consumption Growth," *The Review of Economics and Statistics*.

Carroll, Christopher D., Jiri Slacalek, and Martin Sommer (in progress), "Dissecting Saving Dynamics: Measuring Credit, Wealth and Precautionary Effects," mimeo, European Central Bank and International Monetary Fund.

Carroll, Christopher D., Jiri Slacalek, and Kiichi Tokuoka (2011b), "Digestible Microfoundations: Buffer-Stock Saving in a Krussel–Smith World," mimeo, Johns Hopkins University.

Carroll, Christopher D., Jiri Slacalek, and Kiichi Tokuoka (2011c), "Sticky Expectations and Consumption Dynamics," mimeo, Johns Hopkins University.

Döpke, Jörg, Jonas Dovern, Ulrich Fritsche, and Jiri Slacalek (2008a), "The Dynamics of European Inflation Expectations," *The B.E. Journal of Macroeconomics (Topics)*, 8(37), Article 12.

Döpke, Jörg, Jonas Dovern, Ulrich Fritsche, and Jiri Slacalek (2008b), "Sticky Information Phillips Curves: European Evidence," *Journal of Money, Credit, and Banking*, 40, 1513–1520.

Dovern, Jonas, Ulrich Fritsche, and Jiri Slacalek (forthcoming), "Disagreement among Forecasters in G7 Countries," *The Review of Economics and Statistics*.

Hall, Robert E. (1978), "Stochastic Implications of the Life Cycle–Permanent Income Hypothesis," *Journal of Political Economy*, 86(6), 971–987.

Mankiw, N. Gregory, and Ricardo Reis (2002), "Sticky Information Versus Sticky Prices: A Proposal to Replace the New Keynesian Phillips Curve," *Quarterly Journal of Economics*, 117, 1295–1328.

Slacalek, Jiri (2009), "What Drives Personal Consumption? The Role of Housing and Financial Wealth," *The B.E. Journal of Macroeconomics*, 9(1), article 37.

Slacalek, Jiri, and Martin Sommer (in progress), "What Drives U.S. Household Saving? Examining the Role of Wealth and Credit Availability," mimeo, European Central Bank and International Monetary Fund.