



CENTRE DE RECERCA  
EN ECONOMIA INTERNACIONAL  
GENERALITAT DE CATALUNYA  
UNIVERSITAT POMPEU FABRA

€ABCN  
Euro Area Business Cycle Network

# Euro Area Business Cycle Network Training School

## Monetary Policy Design in the New Keynesian Model

CREI and Universitat Pompeu Fabra, Barcelona

9-12 December 2008

The lectures will provide an overview of the recent literature on monetary policy design in the context of the New Keynesian framework. Different versions of the NK model and their implications for monetary policy will be analyzed in turn, including: (i) the basic NK model with sticky prices, (ii) extensions with labor market frictions, (iii) economies open to trade in goods and assets; (iv) economies featuring imperfections in credit markets.

### Daily Schedule:

**11:00-13:00 Lecture**

**13:00-14:30 Lunch**

**14:30-16:30 Lecture**

**17:00-18:30 Office hours (by appointment)**

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## 1. The Basic New Keynesian Model

A baseline model for monetary policy analysis. The new Keynesian Phillips curve. The output gap and the natural rate of interest. The effects of monetary policy shocks. The effects of technology shocks.

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Galí, Jordi (2008): *Monetary Policy, Inflation, and the Business Cycle: An Introduction to the New Keynesian Framework*, chapter 3.

Walsh, Carl E. (2003): *Monetary Theory and Policy*, Second Edition, MIT Press, chapter 5.

Woodford, Michael (2003): *Interest and Prices: Foundations of a Theory of Monetary Policy*, Princeton University Press, chapter 4.

Yun, Tack (1996): "Nominal Price Rigidity, Money Supply Endogeneity, and Business Cycles," *Journal of Monetary Economics* 37, 345-370.

King, Robert G., and Alexander L. Wolman (1996): "Inflation Targeting in a St. Louis Model of the 21st Century," *Federal Reserve Bank of St. Louis Review*, vol. 78, no. 3. (NBER WP #5507).

Fuhrer, Jeffrey C. and George R. Moore (1995): "Inflation Persistence" *Quarterly Journal of Economics*, No. 440, February, pp 127-159.

Galí, Jordi and Mark Gertler (1998): "Inflation Dynamics: A Structural Econometric Analysis," *Journal of Monetary Economics*, vol 44, no. 2, 195-222.

Galí, Jordi, Mark Gertler, David López-Salido (2001): "European Inflation Dynamics," *European Economic Review* vol. 45, no. 7, 1237-1270.

Special issue of the *Journal of Monetary Economics* on "The Econometrics of the Pricing Equation," September 2005.

Galí, Jordi (1999): "Technology, Employment, and the Business Cycle: Do Technology Shocks Explain Aggregate Fluctuations?," *American Economic Review*, vol. 89, no. 1, 249-271.

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## 2. Monetary Policy Design in the Basic New Keynesian Model

A benchmark case. Optimal monetary policy and its implementation. The Taylor Principle. Simple monetary policy rules. Second order approximation to welfare losses. Evidence on monetary policy rules.

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Galí, Jordi (2008): *Monetary Policy, Inflation, and the Business Cycle: An Introduction to the New Keynesian Framework*, Princeton University Press, chapter 4.

Woodford, Michael (2003): *Interest and Prices: Foundations of a Theory of Monetary Policy*, Princeton University Press, chapter 6.

Yun, Tack (2005): "Optimal Monetary Policy with Relative Price Distortions" *American Economic Review*, vol. 95, no. 1, 89-109

Blanchard, Olivier and Charles Kahn (1980), "The Solution of Linear Difference Models under Rational Expectations", *Econometrica*, 48, 1305-1311

Bullard, James, and Kaushik Mitra (2002): "Learning About Monetary Policy Rules," *Journal of Monetary Economics*, vol. 49, no. 6, 1105-1130.

Woodford, Michael (2001): "The Taylor Rule and Optimal Monetary Policy," *American Economic Review* 91(2): 232-237 (2001).

Rotemberg, Julio and Michael Woodford (1999): "Interest Rate Rules in an Estimated Sticky Price Model," in J.B. Taylor ed., *Monetary Policy Rules*, University of Chicago Press.

Clarida, Richard, Jordi Galí, and Mark Gertler (2000): "Monetary Policy Rules and Macroeconomic Stability: Evidence and Some Theory," *Quarterly Journal of Economics*, vol. 105, issue 1, 147-180.

Taylor, John B. (1998): "An Historical Analysis of Monetary Policy Rules," in J.B. Taylor ed., *Monetary Policy Rules*, University of Chicago Press.

Orphanides, Athanasios (2003): "The Quest for Prosperity Without Inflation," *Journal of Monetary Economics* 50, 633-663

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## 3. Extensions of the Basic NK Model (I): Monetary Policy Tradeoffs and Labor Market Frictions

Cost-push shocks. Nominal and real wage rigidities. Unemployment.

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Galí, Jordi (2008): *Monetary Policy, Inflation, and the Business Cycle: An Introduction to the New Keynesian Framework*, Princeton University Press, chapter 5-6.

Woodford, Michael (2003): *Interest and Prices: Foundations of a Theory of Monetary Policy*, Princeton University Press, chapters 6-8.

Clarida, Richard, Jordi Galí, and Mark Gertler (1999): "The Science of Monetary Policy: A New Keynesian Perspective," *Journal of Economic Literature*, vol. 37, no. 4, 1661-1707.

Erceg, Christopher J., Dale W. Henderson, and Andrew T. Levin (2000): "Optimal Monetary Policy with Staggered Wage and Price Contracts," *Journal of Monetary Economics* vol. 46, no. 2, 281-314.

Blanchard, Olivier J. and Jordi Galí (2007): "Real Wage Rigidities and the New Keynesian Model," *Journal of Money, Credit, and Banking*, supplement to volume 39, no. 1, 35-66.

Blanchard, Olivier J. and Jordi Galí (2008): "Labor Market Imperfections and Monetary Policy: A New Keynesian Model with Unemployment," mimeo.

Giannoni, Marc P., and Michael Woodford (2003): "Optimal Inflation Targeting Rules," in B. Bernanke and M. Woodford, eds. *The Inflation Targeting Debate*, Chicago, Chicago University Press. (also NBER WP# 9939).

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#### 4. Extensions of the Basic NK Model (II): Open Economies

A benchmark small open economy NK model. Incomplete pass-through. Optimal monetary policy: alternative approaches. Medium-scale open economy models.

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Galí, Jordi (2008): *Monetary Policy, Inflation and the Business Cycle: An Introduction to the New Keynesian Framework*, Princeton University Press 2008

Walsh, C. (2003): *Monetary Theory and Policy*, Second Edition, MIT Press.

Corsetti G. (2007), New Open Economy Macroeconomics (January 2007), *New Palgrave Dictionary of Economics*, 2nd edition.

J. Galí and T. Monacelli (2005), "Monetary Policy and Exchange Rate Volatility in a Small Open Economy," *Review of Economic Studies*, Volume 72, Number 3 (July 2005). (GM)

Faia E. and T. Monacelli, "Optimal Monetary Policy in a Small Open Economy with Home Bias (2007)," *Journal of Money Credit and Banking* (forthcoming) (FM)

Erceg C., C. Gust, and D. López-Salido (2007), "The Transmission of Domestic Shocks in Open Economies", Jordi Galí and Mark J. Gertler, editors, *International Dimension of Monetary Policy*, NBER and University of Chicago Press, forthcoming.

G. Corsetti and P. Pesenti. (2005), "International Dimensions of Optimal Monetary Policy", *Journal of Monetary Economics*, 52/2, pp 281-305.

T. Monacelli (2005), "Monetary Policy in a Low Pass-Through Environment", *Journal of Money Credit and Banking*, Vol. 37, N. 6. 1047-1066.

Bouakez H. and N. Rebei (2007) "Has Exchange Rate Pass-Through Really Declined? Evidence from Canada," *Journal of International Economics*, forthcoming.

Benigno G. and P.P. Benigno, "Price Stability in Open Economies," *Review of Economic Studies*, Volume 70, Number 4 (October 01, 2003).

De Paoli B., "Monetary Policy and Welfare in a Small Open Economy", CPS Discussion Paper, 2005.

Engel C. and M. Devereux (2003). "Monetary Policy in the Open Economy Revisited: Exchange Rate Flexibility and Price Setting Behavior," *Review of Economic Studies*, Volume 70, Number 4.

Adolfson, M., S. Laséen, J. Lindé, and M. Villani, Mattias (2007): "Bayesian Estimation of an Open Economy DSGE Model with Incomplete Pass-Through", *Journal of International Economics* 72, 481-511.

----- "Evaluating and Estimating a New Keynesian Small Open Economy Model", *Journal of Economic Dynamics and Control*, forthcoming.

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## 5. Extensions of the Basic NK Model (III): Durable Goods, Investment and Credit Market Imperfections

Sticky prices and durable goods. Credit frictions on the households' side.  
Credit frictions on the firms' side. Credit frictions and banking.

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Barsky Robert, C. House and M. Kimball (2007): Sticky Price Models and Durable Goods. *American Economic Review*, 97, June, 984-998

Campbell J. and Z. Hercowitz (2006): "The Role of Collateralized Household Debt in Macroeconomic Stabilization," NBER w.p. 11330.

Iacoviello, M. (2005), "House prices, borrowing constraints and monetary policy in the business cycle", *American Economic Review*, 95, 3 (June), pp. 739-764.

Monacelli T. (2008), "New Keynesian Models, Durables Goods, and Collateral Constraints", Mimeo Igiar Bocconi.

Monacelli T. (2007), "Optimal Monetary Policy with Collateralized Household Debt and Borrowing Constraints", in Campbell, John Y. (ed.), *Asset Prices and Monetary Policy*, NBER and University of Chicago Press (2007).

Bernanke, B., M. Gertler and S. Gilchrist, (1999), "The Financial Accelerator in a Quantitative Business Cycle Framework", in J.B. Taylor, and M. Woodford, eds., *Handbook of Macroeconomics*, Amsterdam: North-Holland

Carlstrom, C. and T. Fuerst (1997), "Agency Costs, Net Worth and Business Fluctuations: A Computable General Equilibrium Analysis", *American Economic Review*, 87, 893-910.

Faia E. and T. Monacelli (2007), "Optimal Interest Rate Rules, Asset Prices and Credit Frictions", *Journal of Economic Dynamics and Control*, Volume 31, Issue 10, Pag. 3228-3254.

Fuerst C. (1995), "Monetary and Financial Interactions in the Business Cycle", *Journal of Money Credit and Banking*, Vol. 27, N. 4, Part II, November.

Gertler M. (1995), "Comment on: Monetary and Financial Interactions in the Business Cycle", *Journal of Money Credit and Banking*, Vol. 27, N. 4, Part II, November.

Curdia V. and M. Woodford (2008), "Optimal Monetary Policy with Credit Frictions", mimeo, Federal Reserve Bank of New York and Columbia University.

Goodfriend, M. and McCallum, B. (2007), "Banking and Interest Rates in Monetary Policy Analysis: a Quantitative Exploration", *Journal of Monetary Economics*.

De Fiore F. and O. Tristani, "Credit and the Natural Rate of Interest", ECB WP Series, N. 889, April 2008.