

Uncertainty and Volatility in Macroeconomics (Freie Universität Berlin)

Teacher: [Céline Poilly](#) (Aix-Marseille School of Economics and CEPR)

Aim of the course

Over the last years, uncertainty has become a major challenge that private and public decision makers have to deal with. This course will give an overview of the recent developments in the macroeconomics of uncertainty.

We will first review the different empirical measures of economic uncertainty and examine its effects on macroeconomic outcomes. We will be particularly interested in the link between uncertainty and economic volatility. Then, we will discuss the theoretical mechanisms through which uncertainty affects individual decisions (precautionary behaviors, risk aversion, etc.) and the amplification mechanisms of uncertainty shocks through business cycle models.

By the end of the course, students are expected to (i) have a good knowledge about the transmission mechanisms of macroeconomics volatility shock, (ii) being able to conduct an independent research using empirical and theoretical models of macroeconomic volatility.

This course is at advanced M.Sc. and Ph.D. level.

Assessment

Students will present a research idea in class during the second block of the course that they will develop into a 4-5 page research proposal. Ph.D students are also expected to present a paper in class.

Schedule

Thursday	07.05.2026:	12.15-15.45
Friday	08.05.2026:	12.15-15.45
Monday	11.05.2026:	14.15-17.45
Tuesday	12.05.2026:	08.30-11.45
Wednesday	13.05.2026:	08.30-11.45
Monday	18.05.2026:	14.15-17.45
Tuesday	19.05.2026:	08.30-11.45
Wednesday	20.05.2026:	08.30-11.45

Reading List -- Non exhaustive and non compulsory --

- D. Altig, J. M. Barrero, N. Bloom, S. J. Davis, B. Meyer, and N. Parker. Surveying business uncertainty. *Journal of Econometrics*, 2020.
- I. Alfaro, N. Bloom and X. Lin. The Finance Uncertainty Multiplier. *Journal of Political Economy*, 132(2), 577-615, 2024.
- M. Andreasen, G. Caggiano, E. Castelnuovo, and G. Pellegrino. Does Risk Matter More in Recessions than in Expansions? Implications for Monetary Policy, *Journal of Monetary Economics*, 143, 2024.
- C. Arellano, Y. Bai, and P. J. Kehoe. Financial frictions and fluctuations in volatility. *Journal of Political Economy*, 127(5):2049–2103, 2019.
- G. Ascari, S. Fasani, J. Grazzini and L. Rossi. Endogenous uncertainty and the macroeconomic impact of shocks to inflation expectations. *Journal of Monetary Economics*, 140(S), pages 48-63, 2023.

- T. Atkinson, M. Plante, A. Richter and N. Throckmorton. Complementarity and Macroeconomic Uncertainty. *Review of Economic Dynamics*, 44, pages 225-243, 2022.
- R. Bachmann and C. Bayer. Wait-and-see business cycles? *Journal of Monetary Economics*, 60(6):704–719, 2013.
- R. Bachmann, G. Topa, W. van der Klaauw. *Handbook of Economic Expectations*, 2022. Elsevier, edition 1, volume 1, number 1.
- S. R. Baker, N. Bloom, and S. J. Davis. Measuring Economic Policy Uncertainty. *The Quarterly Journal of Economics*, 131(4):1593–1636, 07 2016.
- S. R. Baker, S. J. Davis and J. A. Levy. State-level economic policy uncertainty. *Journal of Monetary Economics*, 132(C), 81-99, 2022.
- S. Basu and B. Bundick. Uncertainty shocks in a model of effective demand. *Econometrica*, 85(3):937–958, 2017.
- S. Basu, G. Candian, R. Chahrour and R. Valchev. *Risky Business Cycles*, NBER Working Papers 28693, 2021.
- C. Bayer, R. Luetticke, L. Pham-Dao, and V. Tjaden. Precautionary savings, illiquid assets, and the aggregate consequences of shocks to income risk. *Econometrica*, 87(1), 2019.
- J. Bernstein, M. Plante, A. W. Richter and N. A. Throckmorton. A Simple Explanation of Countercyclical Uncertainty. *American Economic Journal: Macro*, forthcoming.
- F. Bianchi, H. Kung, M. Tirsikhh. The origins and effects of macroeconomic uncertainty. *Quantitative Economics*, Volume14(3), 855-896. 2023.
- N. Bloom. The impact of uncertainty shocks. *Econometrica*, 77(3):623–685, 2009.
- N. Bloom. Fluctuations in uncertainty. *Journal of Economic Perspectives*, 28(2):153–76, May 2014.
- N. Bloom, M. Floetotto, N. Jaimovich, I. Saporta-Eksten, and S. J. Terry. Really uncertain business cycles. *Econometrica*, 86(3):1031–1065, 2018.
- B. Born and J. Pfeifer. Policy risk and the business cycle. *Journal of Monetary Economics*, 68(C), 68-85, 2014.
- B. Born and J. Pfeifer. Uncertainty-driven business cycles: Assessing the markup channel. *Quantitative Economics*, 12(2), 587-623, 2021.
- C. Busch, D. Domeij, F. Guvenen, and R. Madera. Skewed idiosyncratic income risk over the business cycle: Sources and insurance. *American Economic Journal: Macroeconomics*, 14(2):207–42, 2022.
- M. Cacciatore and F. Ravenna. Uncertainty, wages, and the business cycle. *The Economic Journal*, vol. 131(639), pages 2797-2823, 2021.
- D. Caldara, M. Iacoviello, P. Molligo, A. Prestipino, and A. Raffo. The economic effects of trade policy uncertainty. *Journal of Monetary Economics*. 109(C), 38-59, 2020.
- A. Carriero, T. E. Clark, and M. Marcellino. Measuring Uncertainty and Its Impact on the Economy. *The Review of Economics and Statistics*, 100(5):799–815, 12 2018.
- D. Cascaldi-Garcia, C. Sarisoy, J. Londono, J. Rogers, D. Datta, T. Ferreira, O. Grishchenko,
- E. Castelnuovo. Uncertainty Before and During COVID-19: A Survey. *Journal of Economic Surveys*, 37(3), 821-864, 2023.
- M. R. Jahan-Parvar, F. Loria, S. Ma, M. Rodriguez, and I. Zer. What is certain about uncertainty? *Journal of Economic Literature*, American Economic Association, vol. 61(2), pages 624-654, 2023.
- A. Cesa-Bianchi and E. Fernandez-Corugedo. Uncertainty, Financial Frictions, and Nominal Rigidities: A Quantitative Investigation. *Journal of Money, Credit and Banking*, 50(4), 603-636, 2018.
- J. Fernandez-Villaverde and P. A. Guerron-Quintana. Uncertainty shocks and business cycle research. *Review of Economic Dynamics*, 37:S118–S146, 2020.
- J. Fernandez-Villaverde, P. Guerron-Quintana, J. Rubio-Ramirez, and M. Uribe. Risk matters: The real effects of volatility shocks. *American Economic Review*, 101(6):2530–2561, 2011.

- J. Fernandez-Villaverde, P. Guerron-Quintana, K. Kuester, and J. Rubio-Ramirez. Fiscal volatility shocks and economic activity. *American Economic Review*, 105(11):3352–84, 2015.
- L. Freund, H. Leeand P. Rendahl. The Risk-Premium Channel of Uncertainty: Implications for Unemployment and Inflation. *Review of Economic Dynamics*, 51, 117-137, 2023.
- P. Guerron-Quintana. Risk and uncertainty. *Business Review*, (Q1):9–18, 2012.
- K. Handley and N. Limão. Trade Policy Uncertainty. *Annual Review of Economics*, 14(1), 363-395, 2022.
- A. Johri, S. Khan, and C. Sosa-Padilla. Interest rate uncertainty and sovereign default risk. *Journal of International Economics*, forthcoming.
- K. Jurado, S. C. Ludvigson, and S. Ng. Measuring uncertainty. *American Economic Review*, 105(3):1177–1216, March 2015.
- A. Justiniano and G. E. Primiceri. The time-varying volatility of macroeconomic fluctuations. *American Economic Review*, 98(3):604–41, June 2008.
- F. H. Knight. *The Measurement of Durable Goods Prices*. Hart, Schaffner & Marx, Boston, 1921.
- S. Kumar, Y. Gorodnichenko and O. Coibion. The Effect of Macroeconomic Uncertainty on Firm Decisions. *Econometrica*, 91(4), 1297-1332, 2023.
- S. Leduc and Z. Liu. Uncertainty shocks are aggregate demand shocks. *Journal of Monetary Economics*, 82:20–35, 2016.
- S. Ludvigson, S. Ma, and S. Ng. Uncertainty and business cycles: Exogenous impulse or endogenous response? *Forthcoming American Economic Journal: Macroeconomics*.
- A. Piergiorgio, H. Mumtaz. Financial regimes and uncertainty shocks. *Journal of Monetary Economics*, 101(C), 31-46, 2019.
- S. Salgado, F. Guvenen, and N. Bloom. Skewed business cycles. *Technical report, National Bureau of Economic Research*, 2019.
- G. Segal and I. Shaliastovich. Uncertainty, risk, and capital growth. *SAFE Working Paper Series 388*, Leibniz Institute for Financial Research SAFE. 2023.
- E. Schaal. Uncertainty and unemployment. *Econometrica*, 85(6):1675–1721, 2017.
- H. D. Seoane. Time-varying volatility, default, and the sovereign risk premium. *International Economic Review*, 60(1):283–301, 2019.
- Ulbricht and L. Straub. Endogenous uncertainty and credit crunches. *Technical report, Boston College*, 2021.