KATHRYN HOLSTON

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Education	**Harvard University**
	Ph.D. in Economics, 2024
	Dissertation: Measuring Macroeconomic Conditions
	Committee: Kenneth Rogoff (Chair), Karen Dynan, Ludwig Straub
	M.A. in Economics, 2020
	University of Pittsburgh
	B.S. in Economics and Mathematics, *Summa Cum Laude*, 2015

Research Fields

Primary fields: Macroeconomics, Monetary Economics
Secondary fields: Finance, International Economics

Employment

Council of Economic Advisers, Senior Economist, 2024-Present
Bank for International Settlements, Senior Associate, Monetary and Economics Department, 2022
World Bank, Economist, Office of the Chief Economist, 2020-2022
Federal Reserve Board, Research Assistant, Monetary Studies Section, 2015-2017

Publications

Measuring the Natural Rate of Interest: International Trends and Determinants
with Thomas Laubach and John C. Williams
Journal of International Economics, 2017
JIE Bhagwati Award for Best Paper

U.S. estimates of the natural rate of interest – the real short-term interest rate that would prevail absent transitory disturbances – have declined dramatically since the start of the global financial crisis. For example, estimates using the Laubach-Williams (2003) model indicate the natural rate in the United States fell to close to zero during the crisis and has remained there into 2016. Explanations for this decline include shifts in demographics, a slowdown in trend productivity growth, and global factors affecting real interest rates. This paper applies the Laubach-Williams methodology to the United States and three other advanced economies – Canada, the Euro Area, and the United Kingdom. We find that large declines in trend GDP growth and natural rates of interest have occurred over the past 25 years in all four economies. These country-by-country estimates are found to display a substantial amount of co-movement over time, suggesting an important role for global factors in shaping trend growth and natural rates of interest.

Working Papers

Measuring the Natural Rate of Interest after COVID-19
with Thomas Laubach and John C. Williams
Federal Reserve Bank of New York Staff Reports, no. 1063, 2023

We estimate the natural rate of interest—the real short-term interest rate consistent with economic output equaling its natural rate and constant inflation—for the United States, the Euro Area, and Canada following the COVID-19 pandemic. To do so, we introduce time-varying volatility and add a persistent supply shock to the Holston-Laubach-Williams and Laubach-Williams models of the natural rate of interest to address the extraordinary effects of the COVID-19 pandemic on the economy. These two extensions are necessary to account for the extreme magnitude and nature of the demand and supply shocks associated with the pandemic, which violate key model assumptions. This problem is not unique to our models, and we propose a general solution that can be applied to estimate other unobserved variables after extreme shocks. Resulting estimates of the natural rate of interest in the second quarter of 2023 are close to their respective levels estimated directly before the pandemic; that is, we do not find evidence that the era of historically low estimated natural rates of interest has ended. In the context of our model, the main consequence from the pandemic period was a reduction in estimated natural rates of output.

Uncertainty in Economic Slack in Times of Crisis

The COVID-19 pandemic increased uncertainty around estimates of the output gap. I use the Kalman filter to obtain estimates from a set of unobserved components models that infer the natural level of output from data on output, inflation, interest rates, unemployment, and hours worked. I show that estimates of the output gap from theoretically similar macroeconomic models diverge dramatically not just following the COVID pandemic, but also over the past fifteen years following the global financial crisis. Differences between measures from similar models exceed 5 percentage points and paint a markedly different picture of macroeconomic conditions during the global financial crisis and subsequent recovery. The specification of labor market dynamics and the inclusion of the real interest rate gap in the output gap dynamics are each consequential for estimation of the output gap. In models that are identical except with regard to labor market dynamics, the output gap either becomes positive in 2011 or remains negative through 2023. There is not a consistent wedge between estimates from competing models. This dispersion acts as a source of uncertainty for central bankers and translates directly to large dispersion in the policy rates prescribed by simple monetary policy rules.

The Timing of Banking Crises

The canonical banking crisis is one that erupts around a peak in economic activity and coincides with an economic contraction, following a credit boom or asset bubble. I provide new evidence that banking crises originate all throughout the economic cycle, including during the rebound in economic activity from a contraction that precedes the banking crisis. Banking crises that occur more than two years after a peak in economic activity are particularly prevalent in low and middle-income countries. This poses a challenge when estimating the effects of banking crises on the macroeconomy. Estimates of the aftermath of banking crises over a fixed horizon mask substantial heterogeneity in the dynamics of economic activity, which is due in part to the timing of crises within economic cycles. Alternative measures of crisis severity based on an analysis of output cycles for which the peak in economic activity occurs around the onset of a banking crisis exclude the large share of crises that do not follow this pattern. I document substantial uncertainty about the timing and frequency of banking crises based on twelve cross- country datasets covering 467 episodes of financial distress, spanning from 1800 to 2017. The high incidence of banking crises throughout all phases of the economic cycle prevails despite this uncertainty around their identification.

Policy Contributions	**World Development Report 2022: Finance for an Equitable Recovery**, World Bank Member of core author team
Fellowships	Stone Ph.D. Scholar in Inequality and Wealth Concentration, Harvard, 2019-2024 Jain Family Institute, Guaranteed Income Initiative, 2019-2020

Teaching Experience	International Financial and Macroeconomic Policy, Harvard University, 2020
	    Teaching fellow for Professor Kenneth Rogoff
	    Special Commendation for Extraordinary Teaching
	The Political Economy of Globalization, Harvard University, 2019
	    Teaching fellow for Professor Robert Lawrence and Professor Lawrence Summers

Referee Service	American Economic Review, Economica, Economics Letters, Journal of Empirical Finance, Journal of International Economics, Journal of Macroeconomics
Software Skills	R, Python, Matlab, Dynare, Stata