

[Home](#) > [IMF Economic Review](#) > [Article](#)

Macro Risk Premium and Intermediary Balance Sheet Quantities

Published: 03 August 2010

Volume 58, pages 179–207, (2010) [Cite this article](#)[Save article](#)[View saved research](#) >[IMF Economic Review](#)[Aims and scope](#) →[Submit manuscript](#) →[Tobias Adrian](#), [Emanuel Moench](#) & [Hyun Song Shin](#)[1157](#) Accesses [97](#) Citations [15](#) Altmetric [Explore all metrics](#) →

Abstract

The macro risk premium measures the threshold return for real activity that receives funding from savers. The balance sheet conditions of financial intermediaries provide a window on the macro risk premium. The tightness of intermediaries' balance sheet constraints determines their "risk appetite," which in turn, determines the set of real projects that receive funding, and hence determines the supply of credit. Monetary policy affects risk appetite by changing intermediaries' ability to leverage their capital. This paper estimates the time-varying risk appetite of financial intermediaries for the United States, Germany, United Kingdom, and Japan, and studies the joint dynamics of risk appetite with

macroeconomic aggregates for the United States. The paper argues that risk appetite is an important indicator for monetary conditions.

 This is a preview of subscription content, [log in via an institution](#)  to check access.

Access this article

[Log in via an institution](#) →

Subscribe and save

Springer+

from €37.37 /Month

- Starting from 10 chapters or articles per month
- Access and download chapters and articles from more than 300k books and 2,500 journals
- Cancel anytime

[View plans](#) →

Buy Now

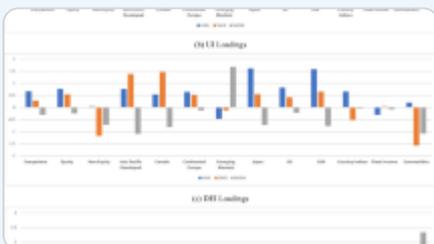
[Buy article PDF 39,95 €](#)

Price includes VAT (Poland)

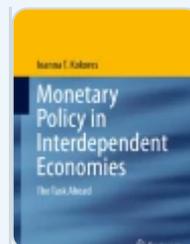
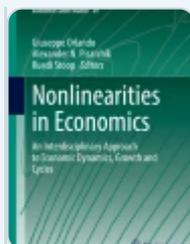
Instant access to the full article PDF.

[Institutional subscriptions](#) →

Similar content being viewed by others



Momentum, value, and size



Explore related subjects

Discover the latest articles, books and news in related subjects, suggested using machine learning.

[Capital Markets](#)

[Economic Psychology](#)

[Financial Econometrics](#)

[Financial Economics](#)

[Risk Theory](#)

[Macroeconomics and Monetary Economics](#)

[Financial Stability and Macroeconomic Dynamics](#)

Notes

1. The model in [Adrian and Shin \(2009a\)](#) outlined in this section does derive equilibrium in capital markets, but it is not a fully developed general equilibrium model. However, the mechanisms outlined in this section are inherently equilibrium effects.
2. [Cúrdia and Woodford \(2009\)](#) present a model that is giving rise to a reduced form very similar to [equations 2a-2d](#). However, as mentioned already, the type of financial intermediary frictions they introduce differs from the model that we described earlier.
3. Besides the model by [Cúrdia and Woodford \(2009\)](#), recent papers that derive general equilibrium models which give rise to reduced form models analogues to [equation 2a-2d](#) can be found in [Gertler and Kiyotaki \(2010\)](#), [Brunnermeier and Sannikov \(2010\)](#), and [Gârleanu and Pedersen \(2010\)](#).

4. [Adrian, Estrella, and Shin \(2010\)](#) investigate the relationship between the level of short-term interest rates, the slope of the yield curve, financial intermediary profitability, and real activity in more detail.
5. See [Adrian and Shin \(2007\)](#) for an overview of the investment banking sector, [Adrian and Shin \(2009c\)](#) for an introduction to shadow banking, and [Adrian, Ashcraft, and Pozsar \(2010\)](#) for a comprehensive overview of shadow banking.
6. The standard errors from our VAR estimates do not take into account the sampling uncertainty in the macro risk premium and the risk appetite measures.
7. [Adrian and Shin \(2008a\)](#) and [2008b](#)) separately examine the interaction between balance sheet growth and the federal funds target separately for “normal” and for crisis periods, and show that the countercyclical monetary policy response is because of cuts in the target following episodes of financial crisis.

References

Adrian, Tobias, Adam Ashcraft, and Zoltan Pozsar, 2010, “Shadow Banking,” (unpublished; Federal Reserve Bank of New York).

Adrian, Tobias, and Arturo Estrella, 2008, “Monetary Tightening Cycles and the Predictability of Economic Activity,” *Economics Letters*, Vol. 99, No. 2, pp. 260–264.

[Article](#) [Google Scholar](#)

Adrian, Tobias, Estrella, Arturo, and Hyun Song Shin, 2010, *Monetary Cycles, Financial Cycles, and the Business Cycle*, Federal Reserve Bank of New York Staff

Report 421.

Adrian, Tobias, Emanuel Moench, and Hyun Song Shin, 2009, Financial Intermediation, Asset Prices and Macroeconomic Dynamics, Federal Reserve Bank of New York Staff Report 422.

Adrian, Tobias, Erkki Etula, and Hyun Song Shin, 2009, Risk Appetite and Exchange Rates, Federal Reserve Bank of New York Staff Report 361.

Adrian, Tobias, and Hyun Song Shin, 2007, "Liquidity and Leverage", Journal of Financial Intermediation, Vol. 19, No. 3, pp. 418-437.

[Article](#) [Google Scholar](#)

Adrian, Tobias, and Shin, Hyun Song, 2008a, Financial Intermediary Leverage and Value at Risk, Federal Reserve Bank of New York Staff Report 338.

Adrian, Tobias, and Shin, Hyun Song, 2008b, "Financial Intermediaries, Financial Stability, and Monetary Policy," *Federal Reserve Bank of Kansas City Jackson Hole Economic Symposium Proceedings*, pp. 287-334.

Adrian, Tobias, and Shin, Hyun Song, 2009a, "Money, Liquidity and Monetary Policy," *American Economic Review*, Vol. 99, No. 2, pp. 600-605.

[Article](#) [Google Scholar](#)

Adrian, Tobias, and Shin, Hyun Song, 2009b, "Money, Liquidity and Monetary Policy: Financial Intermediaries," in *Handbook of Monetary Economics*, Vol. 3, ed. by Benjamin Friedman and Michael Woodford (Amsterdam, North-Holland, Elsevier).

[Google Scholar](#)

Adrian, Tobias, and Shin, Hyun Song, 2009c, "The Shadow Banking System: Implications for Financial Regulation," Banque de France Financial Stability Review, Vol. 13 (September), pp. 1-10.

[Google Scholar](#)

Bernanke, Ben S., and Alan S. Blinder, 1992, "The Federal Funds Rate and the Channels of Monetary Transmission," American Economic Review, Vol. 82, No. 4, pp. 901-921.

[Google Scholar](#)

Bernanke, Ben S., and Ilian Mihov, 1998, "Measuring Monetary Policy," Quarterly Journal of Economics, Vol. 113, No. 3, pp. 869-902.

[Article](#) [Google Scholar](#)

Bernanke, Ben S., and Mark Gertler, 1989, "Agency Costs, Net Worth, and Business Fluctuations," American Economic Review, Vol. 79, No. 1, pp. 14-31.

[Google Scholar](#)

Borio, Claudio, and Haibin Zhu, 2008, "Capital Regulation, Risk-Taking and Monetary Policy: A Missing Link in the Transmission Mechanism?" BIS Working Paper 268 (Basel, Bank for International Settlements).

Brunnermeier, Markus K., and Yuliy Sannikov, 2010, "A Macroeconomic Model with a Financial Sector," (unpublished; Princeton University).

Cúrdia, Vasco, and Michael Woodford, 2009, "Credit Frictions and Optimal Monetary Policy," (unpublished: Columbia University).

Danielsson, Jon, Hyun Song Shin, and Jean-Pierre Zigrand, 2009, "Risk Appetite and Endogenous Risk," (unpublished; Princeton University).

Etula, Erkko, 2009, Broker-Dealer Risk Appetite and Commodity Returns, Federal Reserve Bank of New York Staff Report 406.

Estrella, Arturo, and Gikas Hardouvelis, 1991, "The Term Structure as a Predictor of Real Economic Activity," *Journal of Finance*, Vol. 46, No. 2, pp. 555–576.

[Article](#) [Google Scholar](#)

Gârleanu, Nicolae, and Lasse Pedersen, 2010, "Credit Supply Frictions," (unpublished; University of California and New York University).

Gertler, Mark, and Nobu Kiyotaki, 2010, "Financial Intermediation and Credit Policy in Business Cycle Analysis," (unpublished; New York University and Princeton University).

Gilchrist, Simon, and Egon Zakrasjek, 2009, "The Price of Default Risk and Business Cycle Fluctuations," (unpublished: Boston University).

Kiyotaki, Nobuhiro, and John Moore, 1997, "Credit Cycles," *Journal of Political Economy*, Vol. 105, No. 2, pp. 211–248.

[Article](#) [Google Scholar](#)

Laubach, Thomas, and John C. Williams, 2003, "Measuring the Natural Rate of Interest," *Review of Economics and Statistics*, Vol. 85, No. 4, pp. 1063–1070.

[Article](#) [Google Scholar](#)

Shin, Hyun Song, 2009a, *Risk and Liquidity*, Clarendon Lectures in Finance (London, Oxford University Press).

[Google Scholar](#)

Shin, Hyun Song, 2009b, "Reflections on Northern Rock: The Bank Run that Heralded the Global Financial Crisis," *Journal of Economic Perspectives*, Vol. 23, No. 1, pp. 101-119.

[Article](#) [Google Scholar](#)

Taylor, John, 1993, "Discretion Versus Policy Rules in Practice," *Carnegie-Rochester Series on Public Policy*, Vol. 39, pp. 195-214.

[Article](#) [Google Scholar](#)

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

[Google Scholar](#)

Additional information

*Tobias Adrian is Assistant Vice President and Emanuel Moench is an Economist with the Federal Reserve Bank of New York. Hyun Song Shin is a Professor of Economics at Princeton University. The authors thank the editors, Pierre-Olivier Gourinchas and Ayhan Kose, two anonymous referees, Vasco Cúrdia, Mike Woodford, Simon Gilchrist and participants at the 10th Jacques Polak Research Conference at the IMF in November 2009 for comments and discussions. The authors would further like to thank Egon Zakrasjek for sharing the excess bond premium data and Casidhe Horan for valuable research assistance.

Rights and permissions

[Reprints and permissions](#)

About this article

Cite this article

Adrian, T., Moench, E. & Shin, H. Macro Risk Premium and Intermediary Balance Sheet Quantities. *IMF Econ Rev* **58**, 179–207 (2010). <https://doi.org/10.1057/imfer.2010.5>

Published

03 August 2010

DOI

<https://doi.org/10.1057/imfer.2010.5>

Issue date

01 August 2010

JEL Classifications

[G2](#)

[E3](#)

[E5](#)

Profiles

1. Tobias Adrian



[View author profile](#)

Search

Search by keyword or author



Navigation

[Find a journal](#)

[Publish with us](#)
