

**THE UNIVERSITY OF HONG KONG  
FACULTY OF BUSINESS AND ECONOMICS**

**PhD Course Syllabus**

**Course Code/Title:** FINA6056 Macro Finance

**Course Description:** This Ph.D. course is designed to introduce students the theoretical and empirical advances in macro finance and take students to the frontier of research. The course covers key empirical facts on the linkage between financial markets and the real economy and the theoretical frameworks to interpret the facts.

**Course Objectives:** Equip students with skills and tools to do research in macro finance

**Pre-requisite:** Macroeconomic theory, Econometrics theory, Asset pricing theory, Empirical asset pricing

**Assessment:** 50% homework; 50% research proposal and presentation

**Remarks:** All PhD courses are non-credit-bearing and will be assessed on a pass/fail basis.

<b>Course Learning Outcomes (CLOs)</b> On completion of this course, students should be able to:	<b>Aligned PLOs</b>				
	1	2	3	4	5
1. Understand theoretical and empirical research in macro finance	Y	Y			
2. Critically evaluate research papers and identify important questions	Y		Y		Y
3. Develop macro finance models, derive and test model predictions with data	Y	Y	Y		
4. Present research outlines and results in a coherent way				Y	

**\*Programme Learning Outcomes (PLOs) for Research Postgraduate Programme:**

1. Demonstrate critical understanding, at an advanced level, of up-to-date knowledge and research methodology of a particular field
2. Implement effective academic and personal strategies for carrying out research projects independently and ethically
3. Contribute original knowledge in response to issues in their specialist area
4. Communicate research findings at a diverse range of levels and through a variety of media
5. Evaluate one's own research in relation to important and latest issues in the field

## COURSE DETAILS *(subject to change at instructor's discretion)*

**Year/Semester:** 2023-2024, Second Semester

**Time/Venue:** Thursdays 13:30-16:30, KK 1119

**Instructor:** Yang Liu  
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### I. Teaching and Learning Activities

In-class and Out-of-class Activities <i>(e.g. lectures, class discussion, papers reading, proposal writing)</i>	Expected hour	% of student study effort
1. Lectures and class discussion	36	25%
2. Paper reading	36	25%
3. Presentation	36	25%
4. Research proposal	36	25%
Total	144	100%

### II. Assessment

Assessment Components <i>(e.g. assignments, proposal, presentation, examination)</i>	Weight	CLOs to be assessed				
		1	2	3	4	5
1. Homework		Y				
2. Research proposal			Y	Y		
3. Research proposal presentation					Y	
Total	100%					

**Students will be assessed based on the following performance standards:**

Course Grade	Performance Standard
Pass	Strong evidence of adequate ability to fulfill the intended learning outcomes of the course. Good research idea, clean model derivation, economic intuition, good empirical proxy, solid empirical analyses and discussions of results.
Fail	Little evidence of basic fulfillment of the intended learning outcomes of the course

### III. Course Content and Tentative Schedule

1. Consumption-based asset pricing
2. Dynamic consumption portfolio choice
3. Production-based asset pricing
4. Quantitative banking models and fintech in macro finance
5. Bonds
6. Currencies
7. Intermediaries
8. Demand system asset pricing

### IV. Required/Recommended Readings

#### General readings

Brunnermeier, Markus, Thomas Eisenbach, and Yuliy Sannikov, 2013, *Macroeconomics with Financial Frictions: A Survey*, *Advances in Economics and Econometrics*, Tenth World Congress of the Econometric Society. New York: Cambridge University Press

Brunnermeier, Markus, Emmanuel Farhi, Ralph Koijen, Arvind Krishnamurthy, Sydney Ludvigson, Hanno Lustig, Stefan Nagel, and Monika Piazzesi, 2020, Review Article: Perspectives on the Future of Asset Pricing, *Review of Financial Studies*

Campbell, John, 2017, *Financial Decisions and Markets: A Course in Asset Pricing*, Princeton Press

Cochrane, John, 2017, *Macro-Finance*, *Review of Finance*

Koijen, Ralph and Stijn van Nieuwerburgh, Lecture Notes on Empirical Asset pricing, Available at <https://www.koijen.net/phd-notes-empirical-asset-pricing.html>

#### 1. Consumption-based asset pricing

Bansal, Ravi, and Ivan Shaliastovich, 2013, A Long-Run Risks Explanation of Predictability Puzzles in Bond and Currency Markets, *Review of Financial Studies*

Bansal, Ravi, and Amir Yaron, 2004, Risks for the Long Run: A Potential Resolution of Asset Pricing Puzzles, *Journal of Finance*

Barro, Robert J. 2006. "Rare Disasters and Asset Markets in the Twentieth Century", *Quarterly Journal of Economics*

Campbell, John Y., and John H. Cochrane, 1999, By Force of Habit: A Consumption-Based Explanation of Aggregate Stock Market Behavior, *Journal of Political Economy*

Farhi, Emmanuel, and Xavier Gabaix, 2016, Rare Disasters and Exchange Rates, *Quarterly Journal of Economics*

Gabaix, Xavier, 2012, Variable Rare Disasters: An Exactly Solved Framework for Ten Puzzles in Macro-Finance, *Quarterly Journal of Economics*

Verdelhan, Adrien, 2010, A Habit-Based Explanation of the Exchange Rate Risk Premium, *Journal of Finance*

Wachter, Jessica A, 2006, A consumption-based model of the term structure of interest rates, *Journal of Financial Economics*

Wachter, Jessica A, 2013, Can Time-varying Risk of Rare Disasters Explain Aggregate Stock Market Volatility? *Journal of Finance*

## **2. Dynamic consumption portfolio choice**

Campbell, John, Yeung Lewis Chan and Luis Viceira, 2003, A Multivariate Model of Strategic Asset Allocation, *Journal of Financial Economics*

Campbell, John and Luis Viceira, 1999, Consumption and Portfolio Decisions When Expected Returns Are Time Varying, *Quarterly Journal of Economics*

Campbell, John and Luis Viceira, 2001, Who Should Buy Long-term Bonds? *American Economic Review*

Campbell, John and Luis Viceira, 2002, *Strategic Asset Allocation: Portfolio Choice for Long-Term Investors*, Oxford University Press

## **3. Production-based asset pricing**

Belo, Frederico, Vito Gala, Juliana Salomao, and Maria Ana Vitorino, 2022, Decomposing Firm Value, *Journal of Financial Economics*

Cochrane, John H., 1991, Production-Based Asset Pricing and the Link Between Stock Returns and Economic Fluctuations, *Journal of Finance*

Goncalves, Andrei, Chen Xue, and Lu Zhang, 2020, Aggregation, Capital Heterogeneity, and the Investment CAPM, *Review of Financial Studies*

Hou, Kewei, Chen Xue, and Lu Zhang, 2015, Digesting Anomalies: An Investment Approach, *Review of Financial Studies*

Jermann, Urban J., 1998, Asset Pricing in Production Economies, *Journal of Monetary Economics*

Kogan, Leonid and Dimitris Papanikolaou, 2012, Economic Activity of Firms and Asset Prices, *Annual Review of Financial Economics*

Kogan, Leonid and Dimitris Papanikolaou, 2013, Firm Characteristics and Stock Returns: The Role of Investment-Specific Shocks, *Review of Financial Studies*

Kogan, Leonid and Dimitris Papanikolaou, 2014, Growth Opportunities, Technology Shocks and Asset Prices, *Journal of Finance*

Kogan, Leonid, Jun Li, and Harold Zhang, 2022, Operating Hedge and Gross Profitability Premium, Working Paper

Liu, Laura Xiaolei, Toni M. Whited, and Lu Zhang, 2009, Investment-Based Expected Stock Returns, *Journal of Political Economy*

Papanikolaou, Dimitris, 2009, Investment Shocks and Asset Prices, *Journal of Political Economy*

## **4. Quantitative banking models and fintech in macro finance**

Begenau, Juliane, 2020, Capital Requirements, Risk Choice, and Liquidity Provision in a Business Cycle Model, *Journal of Financial Economics*

Begenau, Juliane and Tim Landvoigt, 2022, Financial Regulation in a Quantitative Model of Modern Banking System, *Review of Economic Studies*

Elenev, Vadim, Tim Landvoigt, and Stijn Van Nieuwerburgh, 2021, A Macroeconomic Model with Financially Constrained Producers and Intermediaries, *Econometrica*

Gertler, Mark and Nobuhiro Kiyotaki, 2015, Banking, Liquidity, and Bank Runs in an Infinite Horizon Economy, *American Economic Review*

Gertler, Mark and Nobuhiro Kiyotaki, 2016, Wholesale Banking and Bank Runs in Macroeconomic

Modelling of Financial Crises, Handbook of Macroeconomics, Vol. 2

Gertler, Mark, Nobuhiro Kiyotaki, and Andrea Prestipino, 2019, A Macroeconomic Model with Financial Panics, Review of Economic Studies

Thakor, Anjan, 2014, Bank Capital and Financial Stability: An Economic Trade-Off or a Faustian Bargain? Annual Review of Financial Economics

## **5. Bonds**

Ang, Andrew and Monika Piazzesi, 2003, A No-arbitrage Vector Autoregression of Term Structure Dynamics with Macroeconomic and Latent Variables, Journal of Monetary Economics

Cieslak, Anna and Pavol Pavola, 2015, Expected Returns in Treasury Bonds, Review of Financial Studies

Cochrane, John and Monika Piazzesi, 2005, Bond Risk Premia, American Economic Review

Duffee, Gregory, 2018, Expected Inflation and Other Determinants of Treasury Yields, Journal of Finance

Krishnamurthy, Arvind and Annette Vissing-Jorgensen, 2012, The Aggregate Demand for Treasury Debt, Journal of Political Economy

Krishnamurthy, Arvind and Annette Vissing-Jorgensen, 2015, The Impact of Treasury Supply on Financial Sector Lending and Stability, Journal of Financial Economics

Joslin Scott, Kenneth Singleton and Haoxiang Zhu, 2011, A New Perspective on Gaussian Dynamic Term Structure Models, Review of Financial Studies

Joslin, Scott, Marcel Pribsch, and Kenneth Singleton, 2014, Risk Premiums in Dynamic Term

Nagel, Stefan, 2016, The Liquidity Premium of Near-Money Assets, The Quarterly Journal of Economics

Piazzesi, Monika, 2005, Bond Yields and the Federal Reserve, Journal of Political Economy

Vayanos, Dimitry and Jean-Luc Vila, 2021, A Preferred-Habitat Model of the Term Structure of Interest Rates, Econometrica

## **6. Currencies**

Colacito, Ric and Max Croce, 2013, International Asset Pricing with Recursive Preferences, Journal of Finance

Colacito, Ric, Max Croce, Federico Gavazzaoni, and Robert Ready, 2018, Currency Risk Factors in a Recursive Multicountry Economy, Journal of Finance

Du, Wenxin, Alexander Tepper, and Adrien Verdelhan, 2018, Deviations from Covered Interest Rate Parity, Journal of Finance

Engel, Charles, 2016, Exchange Rates, Interest Rates, and the Risk Premium, American Economic Review

Fang, Xiang and Yang Liu, 2021, Volatility, Intermediaries, and Exchange Rates, Journal of Financial Economics

Gabaix, Xavier and Matteo Maggiori, 2015, International Liquidity and Exchange Rate Dynamics, Quarterly Journal of Economics

Hassan, Tarek, 2013, Country Size, Currency Unions, and International Asset Returns, Journal of Finance

Itskhoki, Oleg and Dmitry Mukhin, 2021, Exchange Rate Disconnect in General Equilibrium, *Journal of Political Economy*

Jiang, Zhengyang, Arvind Krishnamurthy, and Hanno Lustig, 2021, Foreign Safe Asset Demand and the Dollar Exchange Rate, *Journal of Finance*

Lustig, Hanno, Nikolai Roussanov, and Adrien Verdelhan, 2011, Common Risk Factors in Currency Markets, *Review of Financial Studies*

Lustig, Hanno, Nikolai Roussanov, and Adrien Verdelhan, 2014, Countercyclical Currency Risk Premia, *Journal of Financial Economics*

Lustig, Hanno, Andreas Stathopoulos, and Adrien Verdelhan, 2019, The Term Structure of Currency Carry Trade Risk Premia, *American Economic Review*

Maggiore, Matteo, 2017, Financial Intermediation, International Risk Sharing, and Reserve Currencies, *American Economic Review*

Ready, Robert, Nikolai Roussanov, Colin Ward, 2017, Commodity Trade and the Carry Trade: A Tale of Two Countries, *Journal of Finance*

Richmond, Robert, 2019, Trade Network Centrality and Currency Risk Premia, *Journal of Finance*

## **7. Intermediaries**

Adrian, Tobias, Erkki Etula, and Tyler Muir, 2014, Financial Intermediaries and the Cross-Section of Asset Returns, *Journal of Finance*

Adrian, Tobias and Hyun Song Shin, 2014, Procyclical Leverage and Value-at-Risk, *Review of Financial Studies*

Du, Wenxin, Benjamin Hebert, and Amy Wang Huber, 2022, Are Intermediary Constraints Priced?, *Review of Financial Studies*

Drechsler, Itamar, Alexi Savov, and Philipp Schnabl, 2017, The Deposits Channel of Monetary Policy, *Quarterly Journal of Economics*

Drechsler, Itamar, Alexi Savov, and Philipp Schnabl, 2018, A Model of Monetary Policy and Risk Premia, *Journal of Finance*

Gertler, Mark and Nobuhiro Kiyotaki, 2010, Financial Intermediation and Credit Policy in Business Cycle Analysis, *Handbook of Monetary Economics*, Vol. 3

Haddad, Valentin and Tyler Muir, 2020, Do Intermediaries Matter for Aggregate Asset Prices?, *Journal of Finance*

He, Zhiguo, Bryan Kelly, and Asaf Manela, 2017, Intermediary Asset Pricing: New Evidence from Many Asset Classes, *Journal of Financial Economics*

He, Zhiguo and Arvind Krishnamurthy, 2013, Intermediary Asset Pricing, *American Economic Review*

Muir, Tyler, 2017, Financial Crises and Risk Premia, *Quarterly Journal of Economics*

## **8. Demand system asset pricing**

Bretscher, Lorenzo, Lukas Schmid, Ishita Sen, and Varun Sharma, 2022, Institutional Corporate Bond Pricing, Working Paper

Fang, Xiang, Bryan Hardy, and Karen Lewis, 2022, Who Holds Sovereign Debt and Why It Matters, Working Paper

Jiang, Zhengyang, Robert Richmond, and Tony Zhang, 2022, A Portfolio Approach to Global

Imbalances and Low Interest Rates, Journal of Finance

Koijen, Ralph, Francois Koulischer, Benoit Nguyen, and Motohiro Yogo, 2021, Inspecting the Mechanism of Quantitative Easing in the Euro Area, Journal of Financial Economics

Koijen, Ralph, Robert Richmond, and Motohiro Yogo, 2023, Which Investors Matter for Equity Valuations and Expected Returns, Review of Economic Studies

Koijen, Ralph and Motohiro Yogo, 2019, A Demand System Approach to Asset Pricing, Journal of Political Economy

Koijen, Ralph and Motohiro Yogo, 2020, Exchange Rates and Asset Prices in a Global Demand System, Working Paper

## V. Course Policy

**The University Regulations on academic dishonesty will be strictly enforced!** Academic dishonesty is behaviour in which a deliberately fraudulent misrepresentation is employed in an attempt to gain undeserved intellectual credit, either for oneself or for another. It includes, but is not necessarily limited to, the following types of cases:

- a. Plagiarism - The representation of someone else's ideas as if they are their own. Where the arguments, data, designs, etc., of someone else are being used in a paper, report, oral presentation, or similar academic project, this fact must be made explicitly clear by citing the appropriate references. The references must fully indicate the extent to which any parts of the project are not one's own work. Paraphrasing of someone else's ideas is still using someone else's ideas, and must be acknowledged. Please check the University Statement on plagiarism on the web: <http://www.hku.hk/plagiarism/>
- b. Unauthorized Collaboration on Out-of-Class Projects - The representation of work as solely one's own when in fact it is the result of a joint effort.
- c. Cheating on In-Class Exams - The covert gathering of information from other students, the use of unauthorized notes, unauthorized aids, etc.
- d. Unauthorized Advance Access to an Exam - The representation of materials prepared at leisure, as a result of unauthorized advance access (however obtained), as if it were prepared under the rigors of the exam setting. This misrepresentation is dishonest in itself even if there are not compounding factors, such as unauthorized uses of books or notes.

You are expected to do your own work whenever you are supposed to. Incident(s) of academic dishonesty will NOT be tolerated. Cheating or plagiarism of any kind would result in an automatic FAIL grade for the course plus strict enforcement of all Faculty and/or University regulations regarding such behaviour.