Money, Credit and Banking

Revised 8/12
Econ 246 - 001

Prof. Harold Cole
Ronald O. Perelman Center
colehl@upenn.edu

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T-Th 1:45-3:15PM
Loaction PCPE 200

Syllabus

Coverage: This course studies the role that financial markets, institutions and money play in resource allocation. We explore these questions analytically, using the tools of modern economic theory, and also try to get a quantitative feel for the data. In addition, in the last portion of the course, I want to cover some pressing topics. I discuss those at the end of the course outline.

Textbooks: The course will use a new text (HC) I have written:

Cole, Harold L. Finance and Financial Intermediation: A Modern Treatment of Money, Credit, and Banking. Oxford University Press, 2019.

The book should be available in the bookstore. You can also acquire it through Amazon, and there is a Kindle version. Because the book is the product of my lecture notes and slides, we will end up following it fairly closely throughout most of the course. While the course also draws upon several texts, the only other book I encourage you to buy is by Ferguson (NF), because it is inexpensive and has a lot of interesting material on financial history.

Nail Ferguson, The Ascent of Money, Penguin Press.

Other Materials: You will be submitting your homework assignments through Canvas. So you will need to acquire as means of creating pdf files from your written material. This means having access to a scanner or get something like the *camscanner* app for your phone.

Grading: Assuming we are able to continue in-class through the semester, here is the grading scheme. There will be two Midterms and the Final Examination. In addition there will be regular homework assignments. We will count your highest midterm exam 40%, the final exam 45%, and the homeworks 15%. If you miss one of the midterms, we simply use the one you took. (*Missing both midterms will lead to a grading penalty.*) All exams will be closed book. Exam and homework scores will be combined by converting to standard normals and weighting to obtain a final score.

Math Requirements: The technical level of the course is moderately high. We make extensive use of optimization, calculus, first-order conditions and probability theory. For that reason, I always start with a math review, as well as review any math we use right before doing so.

Course Outline:

I. Math Review

Reading HC chapter 18, and math review lecture slides.

II. An Overview of the Financial System and Market Operations

Reading: HC chapters 1 & 2, and lecture 1.

IV. The Risk Neutral Asset Valuation Model, HC chapters 3-4, lecture 2.

Pricing Bonds and Stocks
Bubbles
Growth and Asset Prices

V. Problems and Fixes for the Risk Neutral Model, HC chapter 5, lecture 3.

Nominal Asset Pricing
Liqudity Benefits from Short-term Bonds
Risk Aversion
Risk Aversion and Growth

VI. The Arbitrage-based Pricing Model, HC chapters 6-7, lectures 4-5.

Delivery Contracts and Pricing
Asset Pricing Super Problem
Derivatives

VII. Financial Frictions and The Firm, HC chapter 8, lecture 6.

Optimal Investment Decisions
Modigliani-Miller Theorem
Frictions and Capital Structure

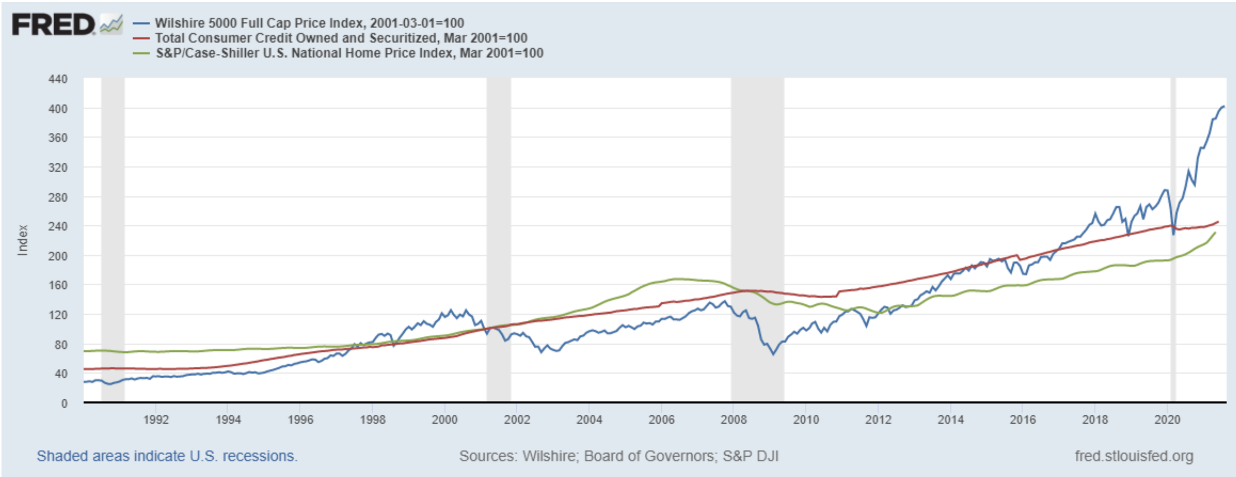
VIII. Models of Money and Exchange Rates, HC 9-11, lectures 7-8

Velocity Model
Baumol-Tobin Model
Search Model
Exchange Rates
Interest Parity
Payment methods and moving away from Money
crypto currencies and cryptography

IX. Financial Intermediation, HC 12-13, lectures 9-10

Lending and Debt contracts
Banking
Deposit Insurance
Securitization

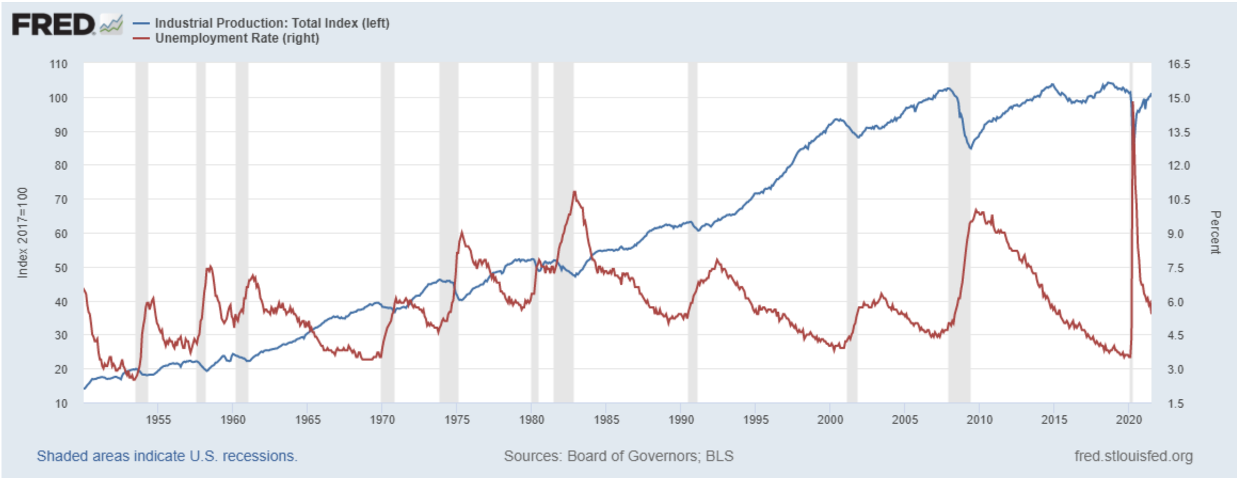
The last few topics are to be determined. Right now, I am planning on expanding our coverage of cryptocurrencies as them seem posed to play a larger role going forwards. Another possible topic is the interaction of government deficits and financial markets (HC 15-16). Finally, we might try and cover models of sovereign borrowing, default and debt crises (HC 17).



To warm us to where we are going, here are some figures that include the kind of data we are interested in:

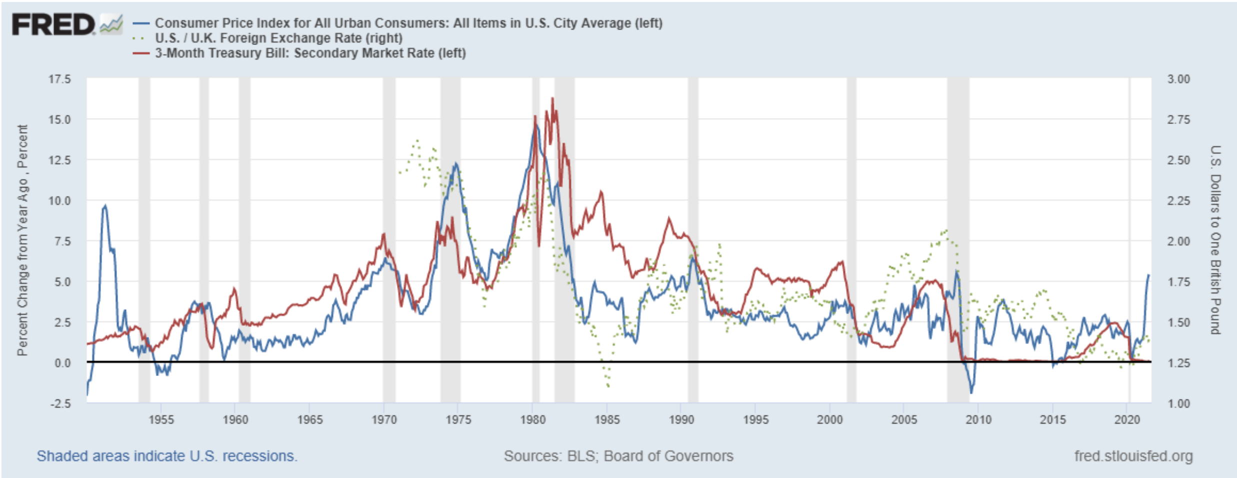
A. The first figure shows some financial data:

- We can see the stock market booms during the late 1990s, the crash of 2000, followed by amother boom and bust in the Great Recession of 2008, and the subsequent long boom, with a sharp temporary decline during the COVID recession.
- We see the long rise in securitized consumer credit which temporarily slows during the Great Recession.
- We can see the end of the long steady growth in housing prices around the Great Recession and the slower growth thereafter.



B. The second figure shows some real data:

- We can see the boom and busts in real activity as measured by Industrial Production and the recent sharp decline followed by a partial recovery.
- We can see the rises and falls in the unemployment rate; it's very low level right before the COVID recession and the unprecedented sharp rise during the COVID recession, with a partial drop most recently.



C. The third figure shows some more financial data:

- We can see the behavior of inflation as measured by the CPI. There is the long run up to it's peak in the early 1990s, followed by its fall and generally low level since 2000. However, it has risen recently in response to the COVID recovery and government stimulus.
- We can see the short-term risk-free interest rate as measured by the yield on US Treasury bills. In a very loose sense it somewhat closely mirrors inflation. Since the 2008 recession rates have been very low, rose slightly and are back to being very low again.
- The exchange rate between the US and UK has been quite volatile, gradually falling during this period. This fall means that one UK pound now buys more dollars, so the US exchange rate has *depreciated*.

COVID: If COVID forces use to go online, we will need to make some key changes. First, I will go back to a set of pre-recorded video lectures to accompany the slides that I developed last year, and which you can watch independently. Second, we will have recorded online Zoom discussions each week where we discuss the lectures during the regular class time. Third, we will make use of online discussion groups either through Canvas or Piazza. Fourth, we will put extra weight on the weekly homework assignments since in-class exams are probably out.

All of the lecture slides and recorded lectures will be available through Canvas. This material should not be shared with anyone outside the class.

Grading: We will not be able to rely as heavily on standard in-class exams unfortunately. As a result:

- There will be one Midterm and a Final which each count 25%. These will be in some sort of online format.
- We will have an expanded set of generally weekly homework assignments which will count 50% of your grade.
- The midterm is tentatively scheduled for Thursday October 15.
- The final will take place during it's regularly scheduled slot in Finals Week.
- Note that both exams and problem sets will need to be submitted through canvas