

Class Meetings

We will meet Mondays from 5:30-8:10 PM in B80.

Grading and Assignments

Your grade will be based on:

(1) Two paper presentations (25 & 50 minutes)	(50% of your final grade)
(2) A paper proposal, due on April 15 th , 2019	(5%)
(3) A paper, due at 5:30pm on May 13 th , 2019	(30%)
(4) Class participation and reading	(15%)

First of the two presented papers must be one of the papers marked with number one (**[1]**) from sections I.– IV.

For a second paper presentation you **cannot** choose a paper that is marked with (*). With my approval, you can also choose any related paper that is not on this list.

You can claim your paper(s) anytime by sending me an e-mail. I expect you to present the first paper on March 23rd, the second paper on April 29th.

The paper proposal should be about 1-3 pages long (Times New Roman font size 12; double lines spacing).

The paper can be shorter partial extension of another paper (original ideas are always welcomed but your paper must include a short review of related literature) or longer extensive review of related literature (target more than 9 pages for this case). In order to avoid any unnecessary frictions, please let me know your idea as soon as possible. Your paper should be about 7-13 pages long (Times New Roman font size 12; double lines spacing).

I expect you to choose the papers to present by March 11th and April 8th. After your presentations, remember to submit copies of the presentations (Ppt, Pdf, Doc...) by email to: vesely@uwm.edu

Textbook and Miscellaneous

There is no required text. Papers can be downloaded at <http://people.uwm.edu/vesely/econ831/>. I will have my office hours from 10:50 AM to 12:50 PM every Wednesday. Any student who has a disability which may require some modification of seating, testing or other class requirements should see me after class or during office hours. I will ensure that the appropriate arrangements are made.

What follows is an approximate list of topics and papers that are related to material that will be covered in this course. We will discuss explicitly only a fraction of them.

Campus Policies: <http://www4.uwm.edu/secu/SyllabusLinks.pdf>

Credit Hour Policy

This 3-credit course meets for 3 academic hours of lecture per week during the semester and 0 academic hours of lecture otherwise. Students are expected to put in additional 6 hours per week reading material, studying, and working on assignments to achieve the learning goals of this course. Students are expected but not required to use the remaining hours of the week doing something else.

Papers

I. Commodity Money - Medium of Exchange Models

- [1] Boldrin, Michele & Kiyotaki, Nobuhiro & Wright, Randall (1993): A dynamic equilibrium model of search, production, and exchange" *Journal of Economic Dynamics and Control* 17(5-6), 723-758.
- *Nobuhiro Kiyotaki and Randall Wright (1989): On Money as a Medium of Exchange, *Journal of Political Economy* 97, 927-954.*
- *Rao Aiyagari and Neil Wallace (1991): Existence of Steady States with Positive Consumption in the Kiyotaki-Wright Model, *Review of Economic Studies* 58, 901-16.*
- *Rao Aiyagari and Neil Wallace (1992): Fiat Money in the Kiyotaki-Wright Model, *Economic Theory* 2, 447-464.*
- [1] Xavier Cuadras-Morato and Randall Wright (1997): On Money as a Medium of Exchange when Goods Differ by Supply and Demand, *Macroeconomic Dynamics* 1, 680-700.
- [1] Juan M. Renero (1999): Does and Should a Commodity Medium of Exchange Have Relatively Low Storage Costs?, *International Economic Review*, 251-264.
- [1] Nobuhiro Kiyotaki and John Moore (2002): Evil Is the Root of All Money, *American Economic Review* 92(2), 62-66.
- *Robert Townsend (1987): Economic Organization with Limited Communication, *American Economic Review* 77(5), 954-971.
- [1] Randall Wright (1994): A Note on Sunspot Equilibria in Search Models of Fiat Money, *Journal of Economic Theory* 64, 234-241.
- [1] Randall Wright (1995): Search, Evolution, and Money, *Journal of Economic Dynamics and Control* 19, 181-206.

II. Search-Theoretic Models

- *Kenneth Burdett et al. (1995): Buyers and Sellers: Should I Stay or Should I Go?, *American Economic Review* 85, Papers and Proceedings, 281-286.*
- [1] Burdett, Kenneth, Alberto Trejos and Randall Wright (2001): Cigarette Money, *Journal of Economic Theory* 99(1-2), 117-142.
- [1] Cuadras-Morató, Xavier (1997): Can Ice Cream Be Money?: Perishable Medium of Exchange, *Journal of Economics* 66(2), 103-125.
- *Gabriele Camera and Filip Vesely (2007): Trading horizons and the value of money. *European Economic Review* 51 1751-1767.*
- [1] Gabriele Camera (2001): Dirty money, *Journal of Monetary Economics* 47 (2), 377-415.
- [1] Gabriele Camera (1999): Money, Search, and Costly Matchmaking, *Macroeconomic Dynamics* 4, 289-323.
- *Peter Diamond (1982): Aggregate Demand Management in Search Equilibrium, *Journal of Political Economy* 90, 881-894.*
- *Peter Diamond (1984): Money in Search Equilibrium, *Econometrica* 52, 1-20.*
- [1] Jon Faust (1989): Supernovas in Monetary Theory: Does Ultimate Sunspot Rule Out Money? *American Economic Review* 79(4), 872-881
- *Nobuhiro Kiyotaki and Randall Wright (1991): A Contribution to the Pure Theory of Money, *Journal of Economic Theory* 53, 215-235.*
- *Nobuhiro Kiyotaki and Randall Wright (1993): A Search-Theoretic Approach to Monetary Economics, *American Economic Review* 83, 63-77.*

- [1] Rachel Kranton (1996): Reciprocal Exchange: A Self-Sustaining System, *American Economic Review* 86, 830-851.
- [1] Klaus Kultti (1995): Finite Horizon Monetary Economy, *Journal of Economic Dynamics and Control* 19, 237-251.
- [1] Klaus Kultti (1994): Money and Markets, *Economics Letters* 45, 59-62.
- *Ricardo Lagos and Guillaume Rocheteau (2005): Inflation, Output, and Welfare, *International Economic Review* 46(2), 495-522*
- [1] Victor Li (1994): Inventory Accumulation in a Search-Based Monetary Economy, *Journal of Monetary Economics* 34, 511-536.
- *Victor Li (1995): The Optimal Taxation of Fiat Money in Search Equilibrium, *International Economic Review* 36, 927-942.*
- Joseph Ritter (1995): The Transition from Barter to Fiat Money, *American Economic Review* 85, 134-149.
- Shouyong Shi (1997): Money and Specialization, *Economic Theory* 10, 99-113.

III. Private Information Models

- [1] Rao Aiyagari and Steve Williamson (2000): Money and Dynamic Credit Arrangements Under Private Information, *Journal of Economic Theory* 91, 248-279.
- [1] Yiting Li (1995): Commodity Money under Private Information, *Journal of Monetary Economics* 36, 573-592.
- [1] Yiting Li (1998): Middlemen and Private Information, *Journal of Monetary Economics* 42(1), pages 131-159.
- *Kahn, Charles M., James McAndrews and William Roberds (2005): Money is Privacy, *International Economic Review* 46(2), 377-399.*
- [1] Young Sik Kim (1996): Money, Barter and Costly Information Acquisition, *Journal of Monetary Economics* 37, 119-142.
- Alberto Trejos (1997): Incentives to Produce Quality and the Liquidity of Money, *Economic Theory* 9, 355-365.
- Alberto Trejos (1999): Search, Bargaining, Money, and Prices under Private Information, *International Economic Review* 40 (3), pp. 679-695.
- *Steve Williamson and Randall Wright (1994): Barter and Monetary Exchange Under Private Information, *American Economic Review* 84, 104-123*

IV. Related Bargaining Models

- *Ariel Rubinstein and Asher Wolinsky (1985): Equilibrium in a Market with Sequential Bargaining, *Econometrica* 53, 133-50.*
- [1] M. Engineer and Shouyong Shi (1994): Asymmetry, Imperfectly Transferable Utility, and the Role of Fiat Money in Improving the Terms of Trade, *Journal of Monetary Economics*.
- Shouyong Shi (1995): Money and Prices: A Model of Search and Bargaining, *Journal of Economic Theory* 67, 467-496.
- *Alberto Trejos and Randall Wright (1995): Search, Bargaining, Money and Prices, *Journal of Political Economy* 103, 118-141.*
- Melvyn Coles and Randall Wright (1996): A Dynamic Equilibrium Model of Search, Bargaining, and Money, *Journal of Economic Theory*.
- *Gabriele Camera and Filip Vesely (2006): On market activity and the value of money. *Journal of Money, Credit, and Banking* 38 (2), 495-509*

V. Policy Analysis

- Rao Aiyagari, Neil Wallace and Randall Wright (1996): Coexistence of Money and Interest-Bearing Securities,

Journal of Monetary Economics 37, 397-420.

Rao Aiyagari and Neil Wallace (1997): Government Transactions Policy, the Medium of Exchange, and Welfare *Journal of Economic Theory*, 74, 1-18.

G. Camera and Yili Chien (2013): Understanding the Distributional Impact of Long-Run Inflation, *Journal of money credit and banking* 46(6)

Cavalcanti, R., Erosa, A., and Temzelides, T. 1999. "Private Money and Reserve Management in a Random Matching Model," *Journal of Political Economy* 107, 929-945.

Ricardo Cavalcanti, Andres Erosa, and Ted Temzelides (2005): Liquidity, Money Creation and Destruction, and the Returns of Banking, *International Economic Review* 46(2), 675-706

P. Diamond and D. Fudenberg (1989): Rational Expectations Business Cycles in Search Equilibrium, *Journal of Political Economy* 97, 606-619.

*N. Kocherlakota (2005): Optimal Monetary Policy: What We Know and What We Don't Know," *International Economic Review*.*

N. Kocherlakota (2003): Societal Benefits of Illiquid Bonds, *Journal of Economic Theory* 108, 179-193.

Yiting Li and Randall Wright (1996): Policy Analysis in Search-Based Models of Money, *Journal of Economic Theory*.

Yiting Li and Randall Wright (1998): Government Transaction Policy, Media of Exchange, and Prices, *Journal of Economic Theory* 81, 290-313.

Yiting Li (2001): A Search Model of Money and Circulating Private Debt with Applications to Monetary Policy, *International Economic Review* 42(4), 925-946.

*Kiminori Matsuyama, Nobuhiro Kiyotaki and Akihiro Matsui (1993): Toward a Theory of International Currency, *Review of Economic Studies* 60, 283-307.*

T. Sargent and Neil Wallace (1982): The Real-Bills Doctrine versus the Quantity Theory: A Reconsideration, *Journal of Political Economy*, Vol. 90(6) 1212-1236.

*Alberto Trejos and Randall Wright (2001): International Currency, *Advances in Macroeconomics* 1(1), Article 3.*

*Alberto Trejos and Randall Wright (1995): Search-Theoretic Models of International Currency, *FRB St. Louis Review* 117-32.*

Francios Velde, Warren Weber and Randall Wright (1999): A Model of Commodity Money, with Applications to Gresham's Law and the Debasement Puzzle, *Review of Economic Dynamics* 2, 291-323.

Neil Wallace and Ruilin Zhou (1996): A Model of a Currency Shortage, *Journal of Monetary Economics*.

Neil Wallace (1997): Short-Run and Long-Run Effects of Changes in Money in a Random-Matching Model. *Journal of Political Economy*, Vol. 105, No. 6.

VI. Distributional Models

Edward Green and Ruilin Zhou (1998): A Rudimentary Model of Search with Divisible Money and Prices, *Journal of Economic Theory* 81, 252-271.

Ruilin Zhou (1996): Individual and Aggregate Real Balances in a Random Matching Model, *Journal of Economic Theory*.

Shouyong Shi (1997): A Divisible Search Model of Fiat Money, *Econometrica* 65, 75-102.

VII. Coexistence of Monetary and Non-monetary Trades

Peter Diamond (1990): Pairwise Credit in Search Equilibrium, *Quarterly Journal of Economics* 105, 285-319.

Shouyong Shi (1996): Credit and Money in a Search Model with Divisible Commodities, *Review of Economic Studies* 63, 627-652.

Banerjee and E. Maskin (1996): A Walrasian Theory of Money and Barter, *Quarterly Journal of Economics*, Vol. 111(4), 955-1005.

*N. Kocherlakota (1998): Money is Memory, *Journal of Economic Theory* 81, 232-251*

G. Camera and Y. Li (2008): Another example of a credit system that coexists with money. *Journal of Money, Credit, and Banking* 40(6), 1295-1308.

D. Corbae, T. Temzelides, and R. Wright (2002): Money and Matching, *American Economic Review*, 67-71.

VIII. Banking

J. Boyd and E. Prescott (1986): Financial Intermediary Coalitions, *Journal of Economic Theory*, Vol. 38, No. 2.

*D. Diamond and P. Dybvig (1983): Bank runs, Deposit Insurance, and Liquidity, *Journal of Political Economy*, Vol. 91.*

D. Diamond (1984): Financial Intermediation and Delegated Monitoring. *Review of Economic Studies* 51, 393-414.

D. Diamond (1997): Liquidity, Banks and Markets, *Journal of Political Economy*

*D. Diamond (2007): Banks and Liquidity Creation: A Simple Exposition of the Diamond-Dybvig Model, *Economic Quarterly* 93 (2), 189-200

*A. Rubinstein and A. Wolinsky (1987): Middlemen, *Quarterly Journal of Economics*,*

Steve Williamson (1987): Financial Intermediation, Business Failures, and Real Business Cycles, *Journal of Political Economy*, 95(6), p. 1196-1216.

*M. Gertler (1988): Financial Structure and Aggregate Economics Activity: An Overview, *Journal of Money, Credit, and Banking*, Vol. 20(3), 559-583.*

J.H. McCulloch and M. Yu (1998): Government Deposit Insurance and the Diamond-Dybvig Model, *The Geneva Risk and Insurance Review* 23(2):139-149.

*Neil Wallace (1988): Another attempt to Explain an Illiquid Banking System: The Diamond-Dybvig Model with Sequential Service Taken Seriously. *Quarterly Review*, Federal Reserve Bank of Minneapolis.*

Bhattacharya and A. Thakor (1993): Contemporary Banking Theory. *Journal of Financial Intermediation* 3, 2-50.

Velde, Weber and Wright (1999): A Model of Commodity Money, with Applications to Gresham's Law and the Debasement Puzzle, *Review of Economic Dynamics* 2, 291-323.

M.O. Yanelle (1997): Banking, Competition, and Market Efficiency, *Review of Economic Studies*, Vol. 64.

IX. Financial Fragility

*Banerjee (1992): A simple Model of Herd Behavior. *Quarterly Journal of Economics* 107(3), 797-817.*

Bikhchandani, D. Hirshleifer, and I. Welch (1992): The Theory of Fads, Fashion, Custom, and Cultural Change as Informational Cascades, *Journal of Political Economy* 100, 992-1026.

*Banerjee (1993): The Economics of Rumours. *Review of Economics Studies* 60, 309-327.*

N. Kiyotaki and J. Moore (1997): Credit Cycles, *Journal of Political Economy* 105(2), 211-248.

T. Temzelides (1997): Evolution, Coordination, and Banking Panics, *Journal of Monetary Economics* 40, 163-183.

X. Payment Systems

Aiyagari, S. R. and Williamson, S. 1999. "Credit in a Random Matching Model with Private Information," *Review of Economic Dynamics* 2, 36-64.

- Cavalcanti, R. and Wallace, N. (1999): Inside and Outside Money as Alternative Media of Exchange, *Journal of Money, Credit, and Banking* 31(3-2), 443-457.
- Dean Corbae and J. Ritter (2004): Decentralized Credit and Monetary Exchange without Public Record Keeping, *Economic Theory*, 933-951.
- Freeman, S. (1996a): Clearinghouse Banks and Banknote Over-Issue, *Journal of Monetary Economics* 38, 101-115.
- Freeman, S. (1996b): The Payments System, Liquidity, and Rediscounting, *American Economic Review* 86, 1126-1138.
- Freeman, S. 1998. "Rediscounting Under Aggregate Risk, *Journal of Monetary Economics* 43(1), 197-216.
- Lacker, J. 1997. "Clearing, Settlement, and Monetary Policy," *Journal of Monetary Economics* 40, 347-382.
- Temzelides, T. and Williamson, S. 2000a. "Payments System Design in Deterministic and Private Information Environments," working paper, University of Iowa.
- Temzelides, T. and Williamson, S. 2000b. "Private Money, Settlement, and Discounts," working paper, Univ. of Iowa.
- Wang, C. (1995): Dynamic Insurance with Private Information and Balanced Budgets, *Review of Economic Studies* 62, 577-595.
- Williamson, S. 1998. "Payments Systems with Random Matching and Private Information," *Journal of Money, Credit and Banking* 30, 551-569.
- Stephen Williamson (1999): Private Money, *Journal of Money, Credit and Banking* 31(3-2), 469-491.
- Williamson, S. 2003. "Payments Systems and Monetary Policy," *Journal of Monetary Economics* 50, 475-495.

XI. Experimental Tests of Monetary Theories

- Steven R. Beckman; Joshua N. Foreman (1988): An Experimental Test of the Baumol Tobin Transactions Demand for Money, *Journal of Money, Credit and Banking*, 20(3), 291-305.
- Michele Bernasconi and Oliver Kirchkamp (2000): Why do Monetary Policies Matter? An Experimental Study of Saving and Inflation in an Overlapping Generations Model, *Journal of Monetary Economics* 46, 315-343.
- *Bigoni, M., G. Camera and M. Casari (2018): Money is More than Memory, *Journal of Monetary Economics* (forthcoming)*
- Paul M. Brown (1996): Experimental evidence on money as a medium of exchange, *Journal of Economic Dynamics and Control* 20(4), 583-600
- Gabriele Camera, Charles Noussair, and Steven Tucker (2003): Rate-of-return dominance and efficiency in an experimental economy, *Economic Theory* 22, 629-660.
- Carey Deck, David McCabe, and Dave Porter (2006): Why stable fiat money hyperinflates: Results from an experimental economy, *Journal of Economic Behavior and Organizations* 61(3), 471-486.
- John Duffy and Jack Ochs (1999): Emergence of Money as a Medium of Exchange: An Experimental Study, *The American Economic Review* 89, 847-877.
- John Duffy (1998): Monetary Theory in the Laboratory, *Review of Fed. Res. Bank of St. Louis*
- *McCabe, K. A. (1989): Fiat Money as a Store of Value in an Experimental Market, *Journal of Economic Behavior and Organization* 12, 215-31.*