



44753 - Financial Institutions, Financial Market and Financial Regulation



Instructor: Amineh Mahmoudzadeh, mahmoodzadeh@sharif.edu

Office: Room 113.

Office Hours: Sundays 12:30-13:30, and by appointment.

Extra Office Hours & Review Sessions TBA before tests.

Phone: 66165863

Teaching Assistance:

Mohammad Rashad Esfahani (esfahani74@gmail.com)

Seyed Mohammad Amin Okhovat Alavian (m.amin.alavian@gmail.com)

TA sessions: Sundays 15:00-16:30

Course Overview:

This course is an applied finance and economics program that focuses on the economics of financial intermediation and financial system architecture. The course then examines financial risk measurement and management and concludes with financial institutions' regulation issues. In this framework, we analyze the mechanisms of contagion, bank runs, and competition results. The main goal is to introduce the fundamental concepts of financial institutions, markets, and regulation, describe how financial markets in Iran are working, and compare the experience of Iran's financial institutions with the introduced theoretical framework.

Prerequisites: Macroeconomics I or Financial Economics I

Course Website: <http://gsme.sharif.edu/~mahmoodzadeh/teaching.html>
cw.sharif.edu
<https://t.me/+Hs31CIWLMZxjZmE0>

Grading Policy:

Problem Sets (5-7): 20%

Quiz (1-2): 5%

Midterm (1400/29): 15%

Final Exam (1400/3/31, 15:30): 25% (full coverage)

Final Project (1400/4/31): 30%

Class Activity: 5%

Workshops: 10% (Bonus)

Changes in weights (up to 5%) may be applied due to realized contingencies.

Problem Sets:

- Problem sets will be uploaded on Sundays, the due date is right before class, the next week.
- You are supposed to organize your groups and collaborate on solving problem sets, but please consider that each person should submit his/her own work.
- Please add the signed “Honor Code” as your homework cover letter.
- In the case of copying, all participants get zero for the first time, the next time, the final score of problem sets decreases to zero, and for the third practice the final score would be zero or you should drop the course.
- There is no extension, in case of emergency issues, please inform me with a valid explanation before the deadline.
- You can drop one problem set.
- If you want your problem sets re-graded, please send your request to TA within one week upon the return of your problem set.

Teaching Assistants:

There are weekly TA sessions and TAs will go over the previous problem set in addition to some additional helpful problems. Attending these sessions is extremely recommended; otherwise, you may lose many concepts and technical skills since they complement the class materials. Additionally, the TAs hold weekly office hours to answer your questions. Please try to take advantage of these hours to resolve any problems you might have with the materials or homework.

Communication:

The materials and announcements will be uploaded on the course website and on Channel. Also, we are emailing you the important announcements. Please, frequently check them.

Final Project:

The course has a final project due after the final exams. Proposals for the final project are due on Week 4. Students can work in groups of 2 for the final project. Every group member must also participate in the in-class oral presentation of the project.

Seminars:

There will be weekly seminars by practitioners who discuss the current situation, institutional structure, challenges, and opportunities of a different part of the Iranian financial sector.

Syllabus:

1. Motivation (2 Sessions)

- International Facts
- Iranian Financial System Architecture and Financial Institutions Balance sheet.

2. Economics of Financial Intermediation (CHS, 1A, 8.2; FR, ch 2) (6

- Moral hazard and credit transformation: basic moral hazard framework, Moral hazard and financial intermediation (Holmstrom-Tirole 1997), Monitoring the monitor (Diamond 1984)

- Maturity transformation: Banks as liquidity providers (Diamond-Dybvig 1983) vs. Market as liquidity provider (Jacklin 1986), Maturity Rat Race (Brunnermeier-Oehmke 2015)
 - Adverse selection and Liquidity transformation: Lemons problem (Akerlof 1970), Security design and the importance of debt (Gorton-Pennachi 1990), DeMarzo-Duffie (1999)
- 3. Financial Contracts, Security Design and Bankruptcy 5**
- Costly state verification (Townsend 1978)
 - Incomplete contracts (Hart and Moore 1994)
 - Bankruptcy and debt enforcement around the world (Djankov et al. 2008)
 - Going concern value vs. liquidation value and the importance of restructuring institutions
 - Debt and Equity Contracts (CHS, 1A, 8.3; FR, ch 2)
 - Bankruptcy
 - Securitization
- 4. Financial System Architecture and Financial Institutions Balance sheet 4**
- Financial System Architecture (Mishkin Ch. 8, Beck et al 99, Allen et al 2018)
 - Commercial banks and investment banks (Hull Ch.2, Mishkin Ch. 9)
 - Insurance companies and Pensions (Hull Ch.3, Chodorow-Reich – Ghent – Haddad 2016)
 - Hedge Funds, Mutual funds (Hull Ch.4, Berk-Binsbergen 2014)
 - Private equity, Venture capital and entrepreneurship finance
- 5. Competition, Contagion & Financial Crisis (TB, ch14-15; AG, ch10) 3**
- Competition and banking stability (Allen and Gale, 2003)
 - Contagion (Allen and Gale, 2000, JPE)
 - Liquidity channel (Diamond and Rajan, 2001, JPE)
 - Financial accelerator (Christiano and Ikeda, 2011)
- 6. Financial Institutions and the Aggregate Economy 5**
- Financial Institutions and the Aggregate Economy (Quadrini 2011; Christiano and Ikeda, 2011)
- 7. Regulation of BHCs (TB, ch 13; AG, ch 7) 2**
- Economics of Financial Regulation (Mishkin Ch. 10)
 - Basel I, II and III (Hull Ch.15 and 16)
 - IFRS 9 and CECL
 - Stress testing
- 8. Financial Institutions Risk 2**
- Interest rate risk
 - Liquidity Risk (Hull Ch.24, Di Maggio-Franzoni-Kermani-Sommavilla 2017)
 - Model risk (Hull Ch.25)
 - Value at Risk and Expected shortfall (Hull Ch.12)

- Special topic II: Macro implications of VaR

Textbooks:

- [AG]: Allen, F., & Gale, D. (2009). Understanding financial crises. Oxford University Press.
- [CHS]: Constantinides, G. M., Harris, M., & Stulz, R. M. (Eds.). (2003). Handbook of the Economics of Finance: Corporate finance. Elsevier.
- [FR]: Freixas, X., & Rochet, J. C. “*Microeconomics of Banking*”. 2nd Edition, 2008, MIT press.
- [H]: Hull, John. “*Risk Management and Financial Institutions*”, 5th Edition, 2018, Wiley Finance Series.
- [M]: Mishkin, F. S. (2016). The economics of money, banking, and financial markets. Pearson education.
- [TB]: Thakor, A. V., & Boot, A. W. (Eds.). (2008). Handbook of financial intermediation and banking. Elsevier.
- Lecture notes will be handed out in class.

Optional Books:

- Mervyn King, “*The End of Alchemy, Money, Banking and the Future of Global Economy*”, W. W. Norton & Company.
- Shiller Robert, “*Finance and the Good Society*”, 2013, Princeton Education Service.
- Ben Bernanke, “*The Courage to Act*”, W. W. Norton & Company.
- Ray Dalio, “*Principles for Navigating Big Debt Crises*”, Bridgewater, 2018.

Papers:

- 1 Akerlof, G. A. (1970). The market for lemons: Quality and the market mechanism. Quarterly. *Journal Economics*, 84, 488-500.
- 2 *Allen, F., & Gale, D. (2000). Financial contagion. *Journal of political economy*, 108(1), 1-33.
- 3 Allen, F., & Gale, D. M. (2003). Financial fragility, liquidity and asset prices.
- 4 Allen, F., Bartiloro, L., Gu, X., & Kowalewski, O. (2018). Does economic structure determine financial structure?. *Journal of International Economics*, 114, 389-409.
- 5 Beck, T., Demirgüç-Kunt, A., & Levine, R. (1999). A new database on financial development and structure. The World Bank.
- 6 Berk, J. B., & Van Binsbergen, J. H. (2015). Measuring skill in the mutual fund industry. *Journal of Financial Economics*, 118(1), 1-20.
- 7 Brunnermeier, M. K., & Oehmke, M. (2013). Predatory short selling. *Review of Finance*, 18(6), 2153-2195.
- 8 Chodorow-Reich, G., Ghent, A., & Haddad, V. (2018). *Asset insulators* (No. w24973). National Bureau of Economic Research.
- 9 *Christiano, L., & Ikeda, D. (2011). Government policy, credit markets and economic activity (No. w17142). National Bureau of Economic Research.
- 10 DeMarzo, P., & Duffie, D. (1999). A liquidity-based model of security design. *Econometrica*, 67(1), 65-99.
- 11 Di Maggio, M., Franzoni, F. A., Kermani, A., & Somavilla, C. (2017). Forthcoming. The Relevance of Broker Networks for Information Diffusion in the Stock Market. *Journal of Financial Economics*.
- 12 Di Maggio, M., Kermani, A., & Song, Z. (2017). The value of trading relations in turbulent times. *Journal of Financial Economics*, 124(2), 266-284.
- 13 Diamond, D. W. (1984). Financial intermediation and delegated monitoring. *The review of economic studies*, 51(3), 393-414.

- 14 *Diamond, D. W., & Dybvig, P. H. (1983). Bank runs, deposit insurance, and liquidity. *Journal of political economy*, 91(3), 401-419.
- 15 Diamond, D. W., & Rajan, R. G. (2001). Liquidity risk, liquidity creation, and financial fragility: A theory of banking. *Journal of political Economy*, 109(2), 287-327.
- 16 Djankov, S., Hart, O., McLiesh, C., & Shleifer, A. (2008). Debt enforcement around the world. *Journal of political economy*, 116(6), 1105-1149.
- 17 *Gertler, M., & Bernanke, B. (1989). Agency costs, net worth and business fluctuations. In *Business Cycle Theory*. Edward Elgar Publishing Ltd.
- 18 *Gorton, G., & Pennacchi, G. (1990). Financial intermediaries and liquidity creation. *The Journal of Finance*, 45(1), 49-71.
- 19 *Hart, O., & Moore, J. (1994). A theory of debt based on the inalienability of human capital. *The Quarterly Journal of Economics*, 109(4), 841-879.
- 20 *Holmstrom, B., & Tirole, J. (1997). Financial intermediation, loanable funds, and the real sector. *the Quarterly Journal of economics*, 112(3), 663-691.
- 21 Jacklin, C. J. (1986). *Banks and Risk Sharing: Instabilities and Coordination*. Graduate School of Business, University of Chicago.
- 22 Quadrini, V. (2011). Financial frictions in macroeconomic fluctuations. FRB Richmond Economic Quarterly, 97(3), 209-254.
- 23 Townsend, R. M. (1979). Optimal contracts and competitive markets with costly state verification. *Journal of Economic theory*, 21(2), 265-293.

Week	Session	Date		Subject	M	H	T	FR	TB	AG	CHS	TA	Session	Project, Exams & Extra Session
1	1	Sunday	16	11	Motivation									
	2	Tuesday	18	11	Motivation									
2	3	Sunday	23	11	Economics of Financial Intermediation	ch 8		ch 1	ch 2		1A-8.2		WS01	
	4	Tuesday	25	11	Economics of Financial Intermediation			6.2						
3	5	Sunday	30	11	Economics of Financial Intermediation			4.2					WS02	
	6	Tuesday	2	12	Economics of Financial Intermediation			3.2						
4	7	Sunday	7	12	Economics of Financial Intermediation								PS01	
	8	Tuesday	9	12	Financial Contracts, Security Design and Bankruptcy			ch 2	ch 2	ch 1	1A-8.3			Extra Session 10 Esfand
5	9	Sunday	14	12	Financial Contracts, Security Design and Bankruptcy								WS03	
	10	Tuesday	16	12	Financial Contracts, Security Design and Bankruptcy									
6	11	Sunday	21	12	Financial Contracts, Security Design and Bankruptcy								PS02	Extra Session 20 Esfand
	12	Tuesday	23	12	Financial Contracts, Security Design and Bankruptcy				ch 4					Q01 24 Esfand-take home
7	13	Sunday	28	12	Financial Contracts, Security Design and Bankruptcy						1B.2		WS04	
		Tuesday	1	1	نوروز									
		Sunday	6	1	نوروز									
		Tuesday	8	1	نوروز									
		Sunday	13	1	نوروز									
		14	Tuesday	15	1	رمضان	ch 9	ch 2		ch 1				
8	15	Sunday	20	1	رمضان								WS05	Project (Subject Selection)
	16	Tuesday	22	1	رمضان		ch 3							
9	17	Sunday	27	1	رمضان		ch 4						PS03	
	18	Tuesday	29	1	رمضان	ch 11		12.3		ch 14	ch 10			
10		Sunday	3	2	عيد فطر									
	19	Tuesday	5	2						ch 15				Extra Session 7 Ordibehesht
11	20	Sunday	10	2	Competition, Contagion and Financial Crisis								WS06	
	21	Tuesday	12	2	Financial Institutions and the Aggregate Economy									Mid-14 Ordibehesht

Week	Session		Date		Subject	M	H	T	FR	TB	AG	CHS	TA	Session	Project, Exams & Extra Session
12	22	Sunday	17	2	Financial Institutions and the Aggregate Economy									PS04	
	23	Tuesday	19	2	Financial Institutions and the Aggregate Economy										
13	24	Sunday	24	2	Financial Institutions and the Aggregate Economy									WS07	Project (Outline) for Tas
		Tuesday	26	2	شهادت										
14	25	Sunday	31	2	Financial Institutions and the Aggregate Economy									PS05	
	26	Tuesday	2	3	Regulation of BHCs	ch 10	ch 15				ch 13	ch 7			Q02 3 Khordad
15	27	Sunday	7	3	Regulation of BHCs		ch 16							WS08	
	28	Tuesday	9	3	Financial Institutions Risk		ch 12								
16		Sunday	14	3	رحلت										
	29	Tuesday	16	3	Financial Institutions Risk									PS06	
		Wednesday	24	3											Final (9 AM)
		Tuesday	20	4											Project(1st Presentation) for TAs
		Tuesday	10	5											Project(2nd Presentation)- Final
		Tuesday	17	5											Project(Report)- Final