

FM225: Fixed Income Securities, Debt Markets and the Macro Economy

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Class 1: Introduction and Overview of Debt Markets

London School of Economics

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Administration

- 3-hour lecture & 1.5-hour class
- 2 exams - 50% each (week 2 Wednesday & week 3 Friday)
- Email: y.ding22@lse.ac.uk; yunan.ding.dphil@said.oxford.edu
- Student enrolment key: FM22525
- Attendance for certificate (75% of classes)
- Welcome Reception: Today 5:30–7:30pm @ Basement, Centre Building (CBG)

Timetable

Week One		AM	PM
14/07/2025	Monday	Lecture - CBG.B1.02 (Auditorium)	Classes - SAL.LG.03, SAL.LG.14, SAL.G.06
15/07/2025	Tuesday	Lecture - CBG.B1.02 (Auditorium)	Computer classes - CLM.B.09, LRB.5.02, SAL.G.06
16/07/2025	Wednesday	Lecture - CBG.B1.02 (Auditorium)	Computer classes - CLM.B.09, LRB.5.02, SAL.G.06
17/07/2025	Thursday	Lecture - CBG.B1.02 (Auditorium)	Computer classes - CLM.B.09, LRB.5.02, SAL.G.06
18/07/2025	Friday	Lecture - CBG.B1.02 (Auditorium)	Computer classes - CLM.B.09, LRB.5.02, SAL.G.06
Week Two		AM	PM
21/07/2025	Monday	Lecture - CBG.B1.02 (Auditorium)	Classes - SAL.LG.03, SAL.LG.14, SAL.G.06
22/07/2025	Tuesday		
23/07/2025	Wednesday	Exams	Exams
24/07/2025	Thursday	Lecture - CBG.B1.02 (Auditorium)	Computer classes - CLM.B.09, LRB.5.02, SAL.G.06
25/07/2025	Friday	Lecture - CBG.B1.02 (Auditorium)	Computer classes - CLM.B.09, LRB.5.02, SAL.G.06
Week Three		AM	PM
28/07/2025	Monday	Lecture - CBG.B1.02 (Auditorium)	Computer classes - CLM.B.09, OLD.B.25, SAL.G.06
29/07/2025	Tuesday	Lecture - CBG.B1.02 (Auditorium)	Computer classes - CLM.B.09, OLD.B.25, SAL.G.06
30/07/2025	Wednesday	Lecture - CBG.B1.02 (Auditorium)	Computer classes - CLM.B.09, OLD.B.25, SAL.G.06
31/07/2025	Thursday	Lecture - CKK.LG.08 (Sheikh Zayed Theatre)	Classes - SAL.LG.03, SAL.LG.14, SAL.G.06
01/08/2025	Friday	Exams	Exams

Lecture 1 Review

- Markets: government debt, money, repo, derivatives
- Players: issuers, intermediaries, investors and their objectives
- No arbitrage: identical payoff \Rightarrow same price: replication
- Risks: interest rate, credit, liquidity, contractual, inflation (TIPS), special event, tax, FX

Question 1 U.S. Treasury Market

- 4 main securities in U.S. Treasury market:

Type	Maturity	Coupon Rate	Principal
Bills	4, 13, 26, 52 weeks	-	Fixed
Notes	2, 5, 10 years	Fixed, semi-annual	Fixed
Bonds	30 years	Fixed, semi-annual	Fixed
TIPS	5, 10, 20 years	Fixed, semi-annual	Inflation Adjusted

Question 2 Repo Market Concepts

Key words:

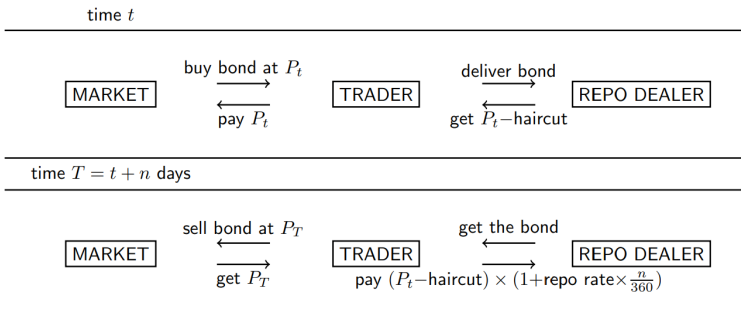
- short-term borrowing
- liquid collateral: treasury security

Answer: Repo Market

- borrowing is collateralized \Rightarrow lower borrowing rate
- high-demand treasury security \Rightarrow Repo rate is even lower than the general collateral rate

Question 3 Repo Transaction

- Schematic Representation (Julliard & Peng Slide 44):

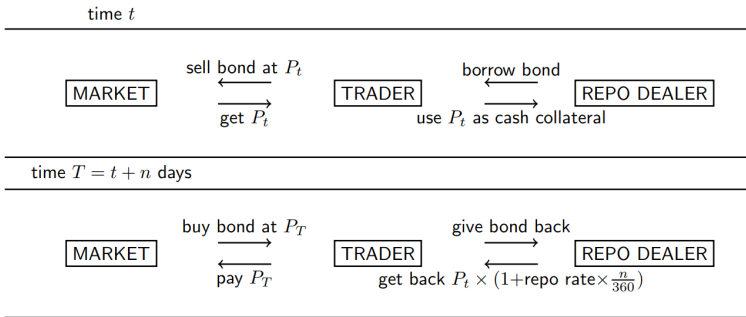


Question 3 cont.

- Repo interest payment: $(P_t - h) \times r \times \frac{n}{360}$
- Return on Capital: $\frac{P_T - P_t - (P_t - h) \times \frac{nr}{360}}{h}$

Question 4 Reverse Repo Transaction

- Schematic Representation (Julliard & Peng Slide 46):



- Profit: $P_t \times \left(1 + \frac{nr}{360}\right) - P_T$