University of Pennsylvania
The Wharton School

FNCE 7190 - International Financial Markets and Cryptocurrencies
Spring 2026

Professor:	Yasser Boualam	Office Hours:	Tue 4-5pm + by appointment
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Teaching Assistants:

Isabela Carvalho	isabelap@wharton.upenn.edu	OH:	Wed 4-5:15pm
Maggie Schwierking	mschwier@wharton.upenn.edu	OH:	Mon 4-5:15pm

It is important that you come during office hours, email me to set up an appointment, or talk to me before or after class if you have any questions about course material or assignments. The office hours conducted by Isabela and Maggie will be on Zoom (see links on Canvas).

Class Time and Location

MBA session: TR 10:15-11:45am Dinan Hall B11

1 Goals & Prerequisites

This class focuses on international aspects of financial markets and the effects of trends in technology, globalization, and regulation.

Currency exchange rates have a major impact on international transactions and on the environment in which businesses operate. The class studies the markets for foreign exchange. As the most liquid financial market, there are a variety of derivative contracts available on currencies such as forwards, futures, options, and swaps. The class provides in-depth perspectives on these issues.

For many firms, exchange rates are viewed primarily as risks affecting operational and financial positions that need to be managed. FX risk management is one of the main focuses of the class.

For investors, currencies and international equity and bond markets represent opportunities that complement domestic investments. The class studies currency investment strategies such as carry trades, momentum, and fundamental approaches. The class considers the optimal exposures to international stocks and bonds, and the role of currency risks in international portfolios.

Digital currencies, such as cryptocurrencies and stablecoins, are a potentially disruptive new type of financial instruments and environments. The class provides a brief overview of the underlying ideas, markets, and promising financial applications.

As a general guideline, the anticipated time allocation is approximately 70% for international finance and 30% for digital currencies and crypto-related topics and applications.

The target audience includes students with interests in and career plans related to capital markets, banking, and corporate finance, among others.

Prerequisites. This course builds on skills acquired in introductory finance and economics classes. The class format, for the most part, is lecture-based, with several case discussions. Class assignments are quantitative in nature.

The following introductory courses are recommended, but not required:
FNCE 6110 (or 6120), 1 cu of Corporate Finance.
FNCE 6130 or 6150, at least 0.5 cu of Macroeconomics.

2 Course Materials

- Lecture slides, course materials, assignments, and grades will be available through Canvas.
- Recommended Textbooks:
  - A customized eBook has been made available for you at https://create.mheducation.com/shop. You may enter the ISBN #: "9798219041488" in the "Looking for New materials Area". Payment is by credit card, and you will get an email with information about how to access the eBook. If you encounter any issues, technical assistance is available at McGraw-Hill's support line 1-800-331-5094, press 2, press 2 (Create), press 1.
  - Blockchain, Crypto and DeFi: Bridging Finance and Technology by Di Maggio – Wiley (2024)
- Other optional textbooks:
  - Trading Fixed Income and FX in Emerging Markets: A Practitioner's Guide by Willer, Chandran, and Lam – Wiley Finance (2020)
- The recommended textbooks provide complementary material, examples, and questions. They are worthwhile for those who would like to deepen their understanding and read about topics we may not have time to discuss in class, but they are not mandatory nor absolutely critical to do well in the exams.
- International and cryptocurrency markets are evolving constantly. Throughout the semester, I will refer to a large number of reports or news articles, mostly from Bloomberg, WSJ, or the Financial Times and will ask you to read them before/after a given session. **If you haven't already done so, please make sure you have active subscriptions through the University Library.**

3 Course Evaluation

Assessments are based on class participation, assignments, and two midterm exams. They will count toward the final course grade as follows:

Class Participation	15%
Individual Assignments	15%
Group Assignments	20%
Midterm I + II	50%

The details are as follows:

Participation: Participation accounts for 15% of the grade. It includes completing pre-class readings or assignments and actively engaging in class discussions through thoughtful questions and comments. Relevant comments raised through email or during office hours may also be considered. Students are expected to arrive on time. Attendance will be regularly monitored and is part of your score. In case you need to miss a lecture, please kindly inform me about it.

Assignments:

- There will be **three individual assignments**, counting together for 15%. The lowest score among the three assignments will be dropped.
- There will be **three group assignments**. Group assignments 1 & 2 will count for 5% each. Group assignment 3 will count for 10%. You are encouraged to work in groups of three or four (no exceptions).
- The problem sets are due on dates indicated on the syllabus/canvas and all copies should be submitted before the beginning of the class. Assignments are graded on a 1 to 5 scale. Late copies will not be accepted and will receive a grade of 0.

Exams: There will be **two midterms during class time**. You will be allowed to prepare and use a double-sided cheat-sheet. The exams are scheduled on: (i) **February 24$^{\mathbf{th}}$**, and (ii) **April 14$^{\mathbf{th}}$**. More details and updates will be announced as we approach these dates. Exams are based on materials, topics, readings, and problems discussed in class and assignments.

Students can check their physical copy upon request. Grades are not subject to discussion except for clear grading errors. Any request must be submitted by email within one week from the date the exam grades have been posted.

Practice problem sets and their solutions will be made available before the midterms.

Each exam counts for 25% of the final grade. There will be no makeup exams. Absence from a midterm will automatically lead to a grade of 0.

4 Policies

Academic conduct and integrity. Every student in the class is responsible for upholding the ideals of honor and integrity. I refer the students to the University of Pennsylvania Code of Academic Integrity available at https://catalog.upenn.edu/pennbook/code-of-academic-integrity/. Any violation may result in a failing grade.

Furthermore, sharing any material from this course – including, but not limited to, slides, exam questions, and exam solutions – with anyone not in your section will not be tolerated. This includes posting such material to any other website. Any such violation will result in a failing grade.

Diversity & Inclusion. It is my intent that students from all diverse backgrounds and perspectives be well-served by this course and that the diversity they bring to this class be viewed as a vital resource and a great benefit. It is my intent to present materials and encourage class discussions that are respectful to everyone. Your suggestions and feedback on this matter are encouraged and highly appreciated.

Classroom conduct. Please arrive on time and silence your cell phones. Laptops and tablets are permitted in class for note-taking purposes or computations.

5 Acknowledgments

This course was originally designed by Professor Urban Jermann at the Wharton School. It also draws on materials prepared by Professors Ye Li and Donghwa Shin.

6 Course Outline

A. FX Basics

1. Introduction to Exchange Rate Markets
2. Spot Foreign Exchange Markets
   - Manipulating exchange rates, FX market structure, arbitrage
3. Forward Contracts and Interest Rate Parity
   - Forward valuation, hedging with forwards, non-deliverable forwards

B. FX Derivatives

1. Currency Futures
   - Futures markets, hedging and speculating with futures
2. Currency Options
   - Put-Call parity, hedging with options
3. Currency and Interest Rate Swaps
   - Examples and motivations for swaps, swap valuation, counterparty risk

C. Topics in FX Strategies and International Investments

1. Exchange rate theories and evidence: purchasing power parity
2. Trading and risk premia in foreign exchange markets: uncovered interest rate parity, carry trade, value, momentum
3. Sovereign debt
4. International stocks and bonds: markets, diversification, hedging FX risk

D. Topics in Digital Currencies and DeFi Applications

1. Cryptocurrencies
   - Bitcoin and Ether basics
   - Bitcoin vs. Gold
   - Arbitrage in cryptocurrency markets
2. Smart Contracts and DeFi Applications
3. Stablecoins and CBDCs: The future of payment systems?
4. RWA Tokenization

7 Tentative Schedule

Date	Topic	
Jan 20	Introduction to FX Markets + *Logistics*	
22	Spot FX Markets I	
27	Spot FX Markets II	
29	Forward Contracts and Interest Rate Parity I	
Feb 3	Forward Contracts and Interest Rate Parity II	
5	Currency Futures I	Indiv. Assignment 1 DUE
10	Currency Futures II	
12	Currency Options	Group Assignment 1 DUE
17	Interest Rate and Currency Swaps I	
19	Interest Rate and Currency Swaps II	Indiv. Assignment 2 DUE
24	**– Midterm Exam I –**	
26	Purchasing Power Parity	
Mar 17	Carry Trade	
19	Sovereign Debt	
24	International Stock and Bond Markets	
26	– *Guest Lecture I* –	Group Assignment 2 DUE
31	Cryptocurrencies I	
Apr 2	Cryptocurrencies II	Indiv. Assignment 3 DUE
7	DeFi Applications I	
9	DeFi Applications II	
14	**– Midterm Exam II –**	
16	Stablecoins and CBDC	
21	– *Guest Lecture II* –	
23	RWA Tokenization	Group Assignment 3 DUE