# 3543 Fiscal and Financial System in Japan A / KC3002 International Finance 

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## General Course Discussion

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## Instructor

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Research：Political Economy of Monetary Unions
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## Exchange Rates

The exchange rate is the "price" of one currency measured in terms of another currency.

The yen/dollar exchange rate is the "price" of dollar measured in terms of yen. It is expressed as " 80 yen per dollar" or " $¥ 80 / \$$."

## Exchange Rates

Depreciation（減価）is a decrease in the value of currency relative to another currency．

Dollar’s depreciation：$¥ 80 / \$ \rightarrow \neq 79 / \$$
Depreciated currency is less valuable and therefore can buy smaller amount of another currency．

Appreciation（増価）is an increase in the value of currency relative to another currency．

Dollar’s appreciation：$¥ 80 / \$ \rightarrow ¥ 81 / \$$
Appreciated currency is more valuable and therefore can buy larger amount of another currency．

## Exchange Rates

The yen/dollar exchange rates have recently been around; (a) 110 (b) 100 (c) 90 (d) 80.

Consciously or unconsciously, we have some idea of recent trends in exchange rates.

Market exchange rates are reported in the TV news program as frequently as the weather forecast.

Why are exchange rates reported so frequently?

## Exchange Rates

Exchange rates have important impacts on our daily lives just as the everyday weather does.


## Exchange Rates

A fall in exchange rates makes the US products cheaper relative to the Japanese products.
$\rightarrow$ Demand for the US product rises, while demand for the Japanese product falls.
$\rightarrow$ The US firms produce more, while the Japanese firms produce less.
$\rightarrow$ The US firms employ more workers, while the Japanese firms employ fewer.

## Exchange Rates



A fall in exchange rates can cause a loss to lenders.
Unpredictable exchange rates discourage international lending and borrowing.

## Exchange Rates

Exchange rates are subject to change, just as the everyday weather is.


Source: Federal Reserve Bank of St. Louis website

## Yen/Dollar Rates: Medium-Term



Source: Federal Reserve Bank of St. Louis website

## Yen/Dollar Rates: Long-Term



Source: Federal Reserve Bank of St. Louis website

## Question 1

What factors determine the exchange rates in the various time periods?

Short-term fluctuations: Almost no trend to be found
Medium-term fluctuations: Upward trend
Long-term fluctuations: Downward trend

Different factors play a major role in different time periods.

## Question 2

How do the variables interact and how are they jointly determined?

Exchange rates affect output and interest rates.
Exchange rates are also determined by other variables.


Exchange rates, output, and interest rates interact with one another and therefore are jointly determined.

## Question 3 and 4

## What kinds of events/shocks affect the exchange rates and the other variables, and how?



Shocks from the outside (natural disasters, changes in market sentiments, etc.) affect the interaction and cause the variables to change, improving or worsening our economic welfare.

> What kinds of policy measures can governments take to alleviate the effects of negative shocks?

## Question 5

How do exchange rate arrangements make any difference to the macroeconomic performance？

Floating Exchange rates are determined by markets and are （変動制） allowed to float freely．
e．g．US，UK，Japan，Canada，Korea
Fixed Governments intervene and fix the exchange rates
（固定制） at an official value．
e．g．Hong Kong，Malaysia，China，Eurozone countries
Intermediate Governments intervene only when the exchange （中間） rates overshoot a targeted，relatively wider range． e．g．Denmark，Costa Rica


Distribution of Exchange Rate Regimes IMF Classification Source: Levy-Yeyati and Sturzenegger , "Classifying exchange rate regimes: Deeds and words," European Economic Review 2005

## Goals of the Course

- After the successful completion, the students are expected to give logical answers to these questions:

1. What factors determine the exchange rates in different time periods?
2. How are exchange rates, interest rates, and output are jointly determined?
3. What kinds of shocks or events affect those variables, and how?
4. What measures can governments take to alleviate the negative impacts of those shocks?
5. Can institutional arrangements make any difference to the answers to these questions?

## Goals of the Course (cont.)

$\square$ Upon successful completion of the course, you'll also familiar with economist's analytical tool,"model," and you'll be able to apply some models to find the answers to the questions above.

## Model - Economist's Analytical Tool

Model is a simplified miniature of an actual economy.


Model

- Two countries
- Identical countries
- Foods and TV sets

Real world is so complex with numerous people, numerous countries, numerous products, and their complex interactions.

Economists simplify the real world by dropping the factors that are not essential or fundamental to their question, and constructing a world of the smallest factors possible.

## How to Use Models

Economist closely observes how his model responds to a shock.


Then, he tries to reason how the real economy would respond to the shock, deriving some implications of his model.

## Why Do We Need Models?

The actual economy is so complex that, however closely we observe it, we can hardly get an overview and find how it works.

Therefore, the best we can do is to construct a miniature, which is simple enough to get an overview and to observe the mechanism.

Everything economist says is necessarily based on some model.

## The Models to Be Reviewed

(1) Model for the short-run fluctuations of exchange rates: "Interest Parity Model"
(2) Model for the interest rate determination
(3) Model for the GDP determination
(4) Model for the joint determination of exchange rates, interest rates, and GDP in the medium term
(Model for the medium-term fluctuations of exchange rates):
"DD-AA Model" developed by Krugman, Obstfeld \& Melitz's textbook.
(5) Model for the long-run fluctuations of exchange rates:
"Purchasing Power Parity (PPP) Model"

## Schedule (Tentative)

Lecture Date
1 Sep 20 General Course Discussion
2 Sep 27 Exchange Rates: Equilibrium in the FX Market
3 Oct 4 Interest Rates: Equilibrium in the Asset Market
4 Oct 11 Interest Rates: Equilibrium in the Asset Market(cont.)
5 Oct 18 National Income Accounting
6 Oct 25 Balance of Payments Statistics
7 Nov 8 Midterm

## Schedule (Tentative)

Lecture Date
8 Nov 15 Output : Equilibrium in Goods Market
9 Nov 22 Output : Equilibrium in Goods Market (cont.)
10 Nov 29 DD-AA Model (1) : General Equilibrium Approach to Exchange Rates and Output
11 Dec 6 DD-AA Model (2) : Applications
12 Dec 13 Fixed Exchange Rates
13 Dec 20 Final
14 Dec 27 (optional) Purchasing Power Parity
15 Jan 10 (optional) Euro

## Grading

Grades will be based on two in-class exams and several in-class quizzes.

Midterm 30\%, multiple-choice questions, 2-3 essay
(Nov 8) questions

| Final <br> (Dec 20) | $70 \%$, multiple-choice questions, 2-3 essay <br> questions, <br> covers all the materials in the course |
| :--- | :--- |
| Quizzes | extra points |

No make-up tests unless there are compelling medical reasons supported by a doctor's note.
No make-up for quizzes.

## Sample Question(Multiple-Choice)

In the short run, a rise in the exchange rate, i.e. currency depreciation,
(a) raises aggregate demand and raises output
(b) raises aggregate demand and lowers output
(c) raises aggregated demand and does not affect output
(d) lowers aggregate demand and raises output
(e) lowers aggregate demand and lowers output

## Sample Question(Multiple-Choice)

When output falls and the currency appreciates, which of the following is the most likely cause behind?
(a) A rise in the dollar interest rate
(b) A fall in the US GDP
(c) A fall in investment demand
(d) A fall in the nominal money stock
(e) A depreciation in the expected future yen

## Sample Question(Essay)

Using the DD-AA framework, answer the following questions.
A) Explain how an increase in government demand affects the country's equilibrium GDP and exchange rate.
B) Explain how the interest rate and the current account are affected.

You can get all the exams in the courses I taught on my website: http://www1.meijigakuin.ac.jp/~iwamura/

## Prerequisite

- No formal prerequisite.
- Basic algebra skills are assumed. No differentiation or matrix algebra is required.
- An understanding of introductory economics would be of great help. Especially, if you are familiar with "equilibrium" and "exogenous and endogenous variables," you are well ready for this course.


## References

No particular textbook is used. Handouts are distributed.
[1] Paul Krugman, Maurice Obstfeld, and Marc Melitz, International Economics: Theory and Policy, $9^{\text {th }}$ Edition, Pearson, 2011.
$80 \%$ of Part 3 and some of Part 4 of the book will be covered.
[2] Frederic Mishkin, The Economics of Money, Banking, and Financial Institutions, 10 ${ }^{\text {th }}$ Edition, Pearson, 2012.

Chapters 4 and 5 will be covered for more detailed explanation on interest rates.

## References (cont.)

[3] Robert Feenstra and Alan Taylor, International Macroconomics, Worth Publishers, 2008.
Alternative to KOM, though a little more advanced.
[4] N. Gregory Mankiw, Macroconomics, $7^{\text {th }}$ Edition, Worth Publishers, 2009.

For those interested in details of macroeconomics.
[5] Richard Caves, Jefferey Frankel, and Ronald Jones, World Trade and Payments: An Introduction, $10^{\text {th }}$ Edition, Pearson, 2007.

Focuses on the Mundell-Fleming Model, the most well-known model of international macroeconomics, which this course does not deal with.

