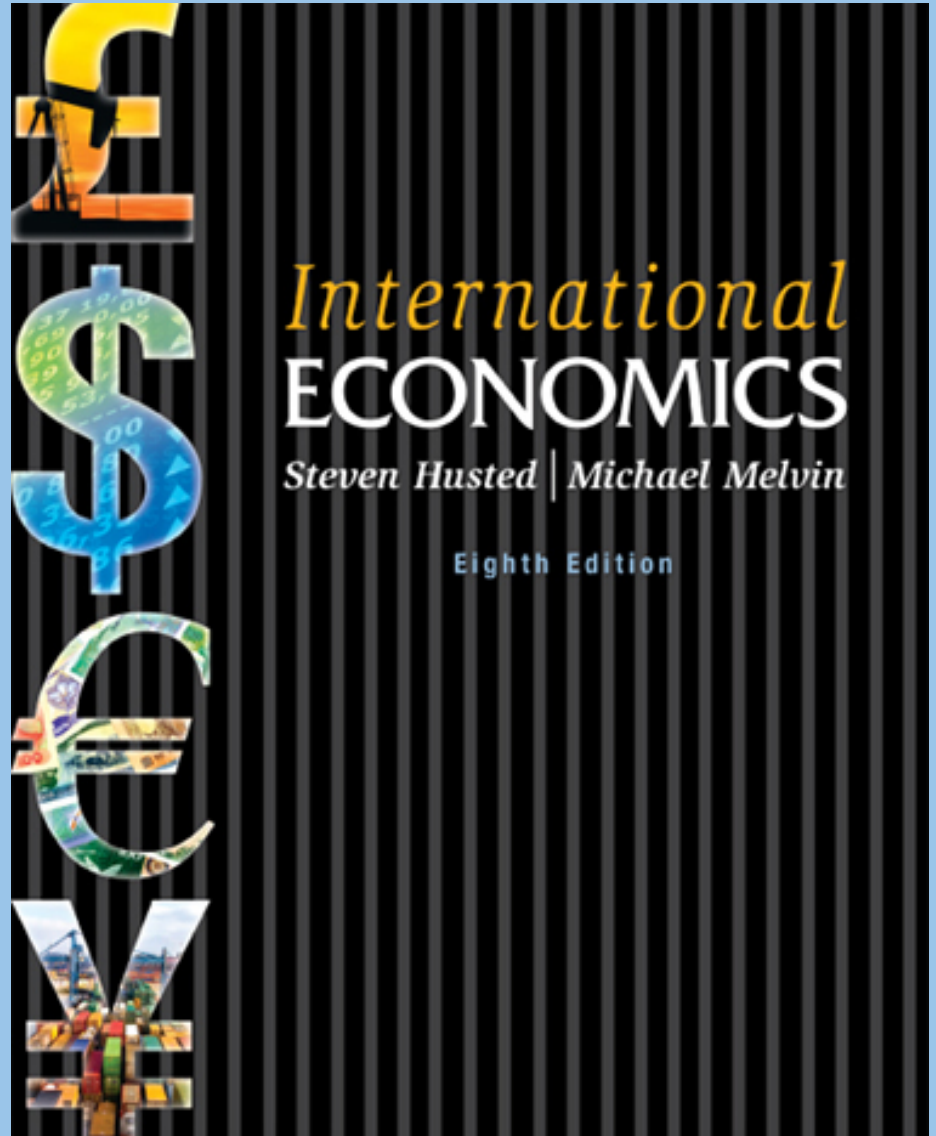


Chapter 11

An Introduction to International Finance

Adapted by H.
Dellas



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Topics to be Covered



- Foreign accounts-Balance of payments
- Exchange rates-exchange rate markets
- Prices and exchange rates
- Interest and exchange rates
- Other topics
 - International portfolios
 - Economic activity and prices in an open economy
 - Exchange rate systems, crises
 - International debt, crises

Balance of Payments (BOP)



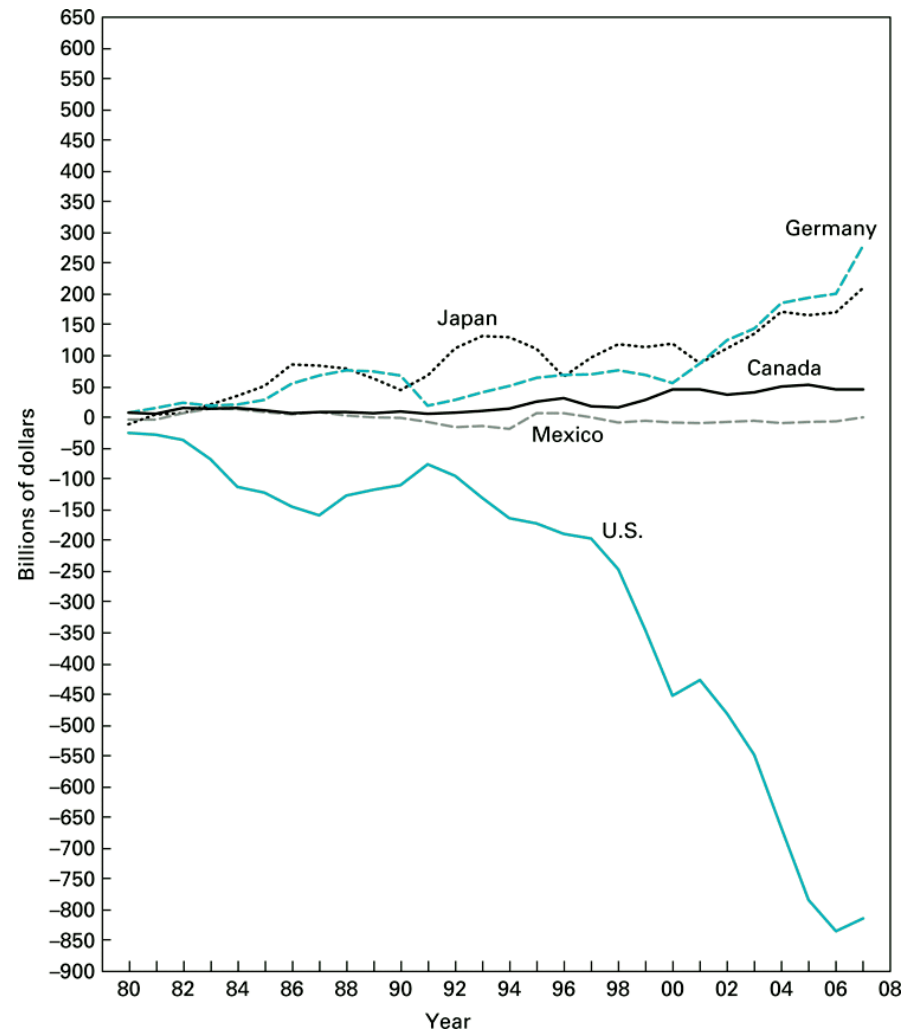
- **BOP**—a record of a country's economic transactions with the rest of the world.
- The BOP's main components are the current account (CA) and the Capital Account (CA).
- The CA's main component is the trade balance (TB) or net exports (NX).

Trade Surplus vs. Trade Deficit

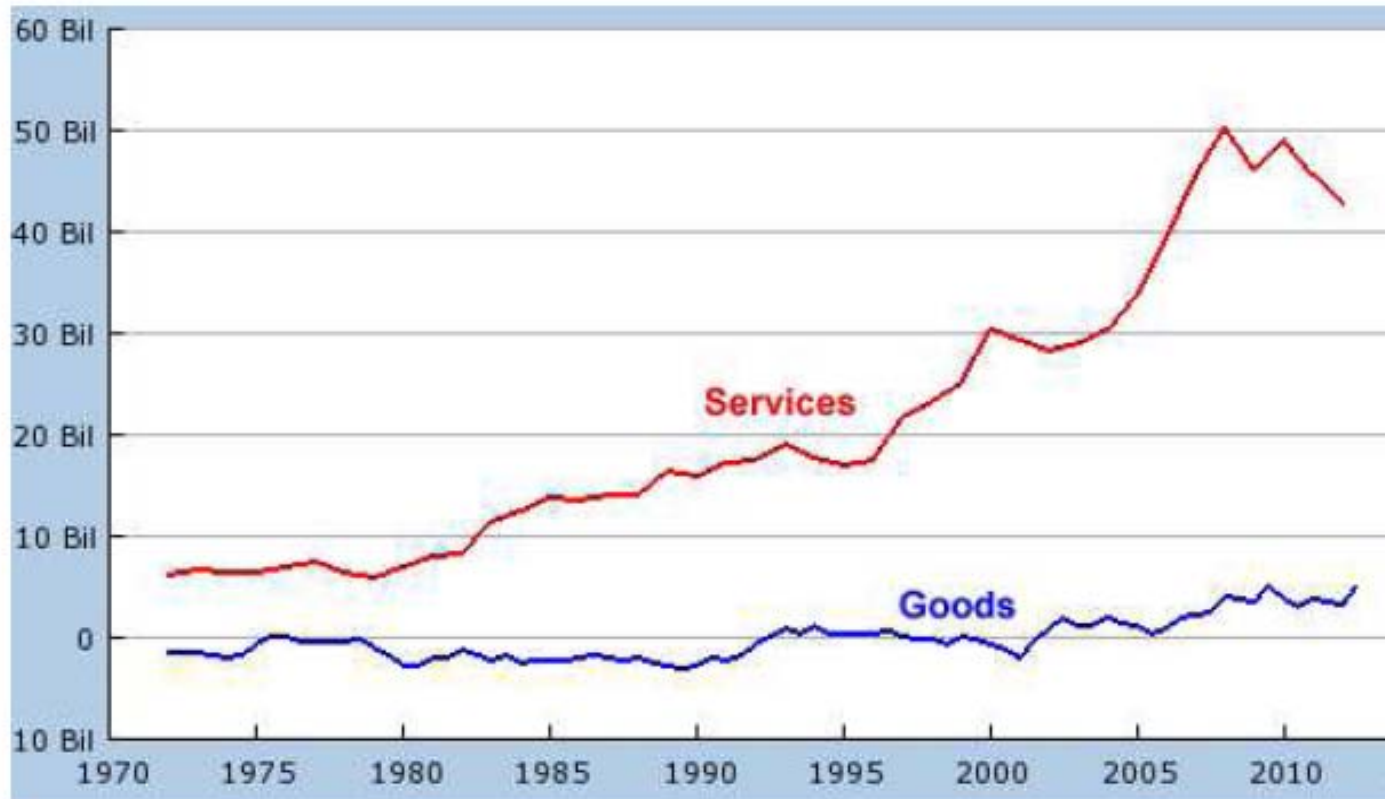


- **Trade surplus**—occurs when a country's merchandise exports exceed its imports.
- **Trade deficit**—occurs when a country's merchandise imports exceed its exports.
- The U.S. has consistently experienced trade deficits, with 1975 as the last surplus year, while Japan, Germany, and Switzerland have had trade surpluses (refer to Figure 11.1).

FIGURE 11.1 The Trade Balance over Time



Trade Balance & Services Balance, Switzerland



Exchange Rates



- **Exchange rate**—price of one country's money in terms of another
- **Foreign Exchange Market (FEM)**—the market where monies of different countries are traded.

TABLE 11.2 Use of Currencies on One Side of the Transaction as a Percentage of Total Foreign-Exchange Market Volume

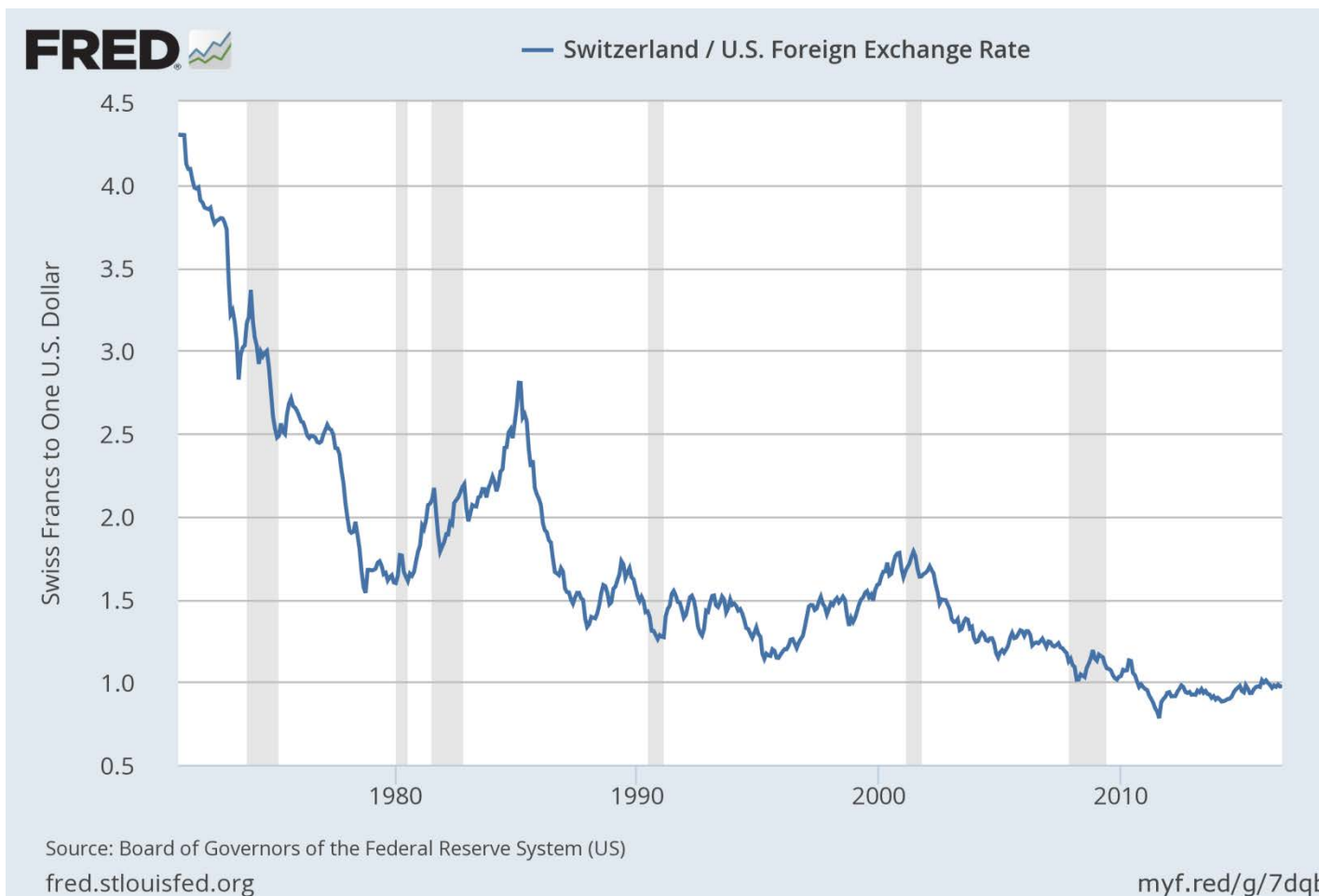


Currency	Percentage share
U.S. dollar	86
Euro	37
Japanese yen	17
British pound	15
Swiss franc	7
Australian dollar	7
Canadian dollar	4

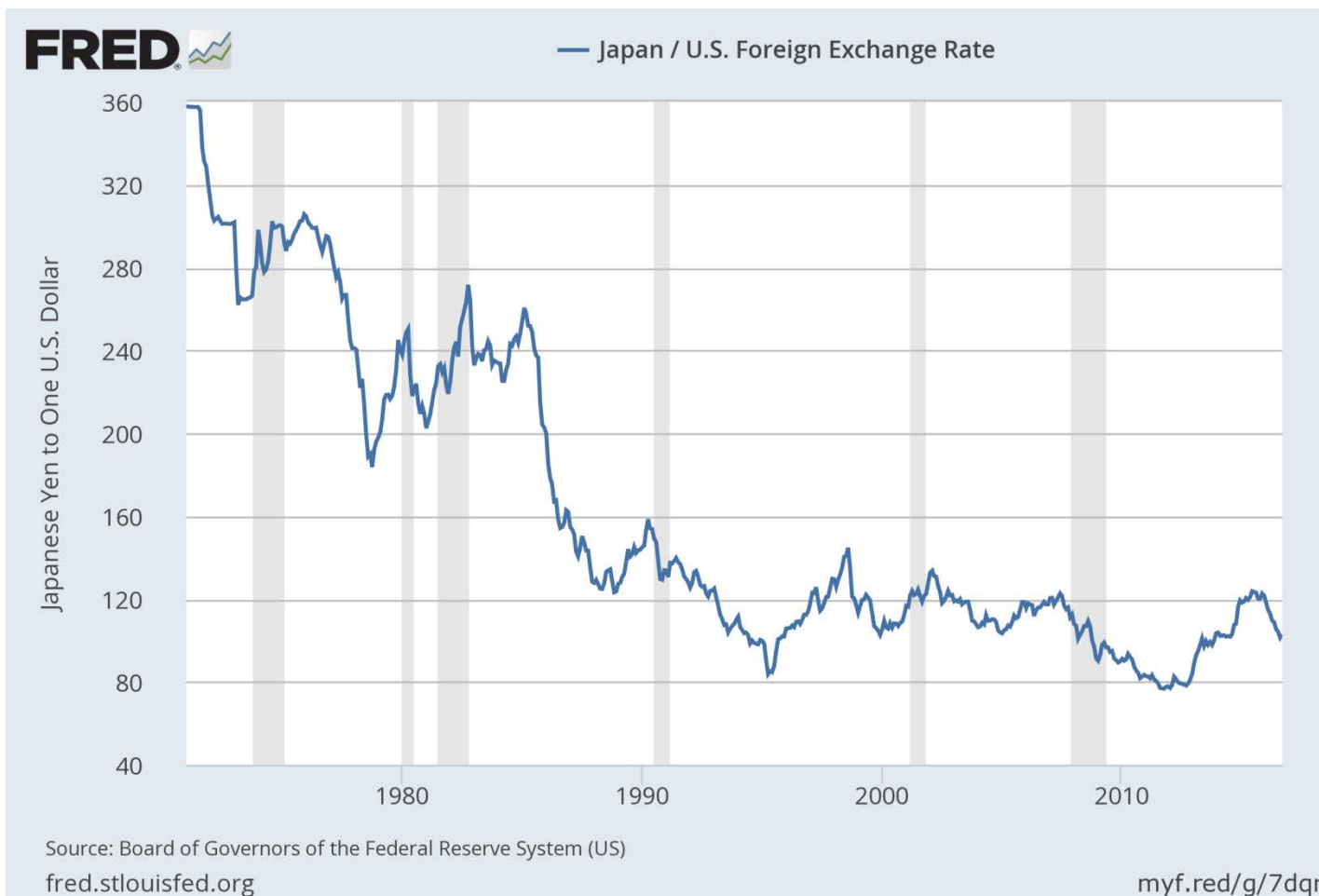
CHF-EUR Rate: Recent Trend and Volatility



Exchange Rates: Trend and Volatility



Exchange Rates: Trend and Volatility



What explains these exchange rate movements?

Prices (inflation) and exchange rates



- Purchasing Power Parity (PPP) holds when two currencies have the same purchasing power in the two countries.
- Chapter 14 will analyze the prices–exchange rate relationship in more detail.

An example of PPP: The Big Mac PPP

- Refer to Table 11.3 Big Mac PPP
- If the price of a Big Mac hamburger were \$1 in the U.S. and CHF 1 in CH and the CHF/\$ exchange rate were 1 then Big Mac PPP would hold.
- In Table 11.3, PPP would hold if a Big Mac in Switzerland was 1.02 CHF. But it cost much more than this! PPP does not hold.
- PPP appears to hold more for Australia.
- China's yuan seems "undervalued" by 50% against the dollar; thus dollars will buy more in China. The reverse is true for Switzerland.



TABLE 11.3 Big Mac Purchasing Power Parity



Country	(1) Purchasing Power Parity Exchange Rate ¹	(2) Actual Exchange Rate	(3) Over (+) or Under (-) Valuation Against the Dollar (%) ²
Australia	1.07	1.04	3%
Canada	1.13	1.01	12%
China	3.42	6.85	-50%
Japan	87	107	-18%
Switzerland	1.96	1.02	91%

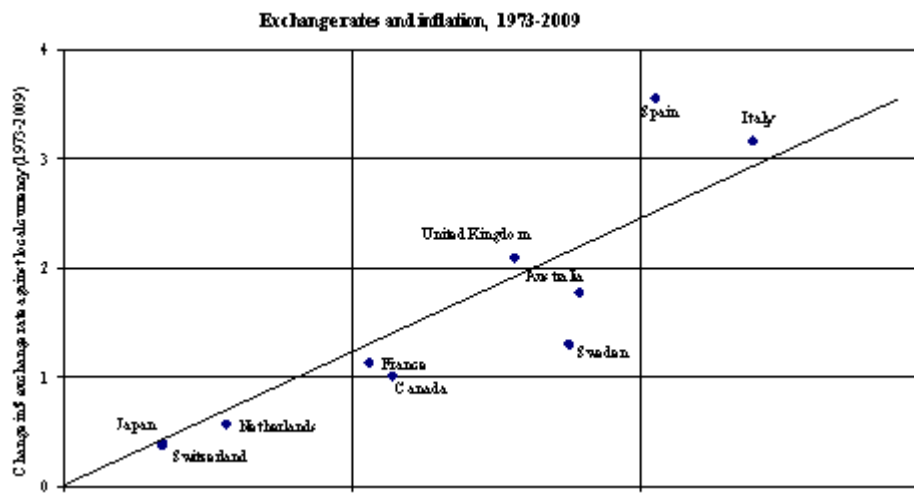
¹Big Mac price in local currency/Big Mac price in U.S. currency

²[Column (1) – Column (2)]/Column (2)

SOURCE: Table created from data found on <http://www.oanda.com>.



Exchange rates and inflation

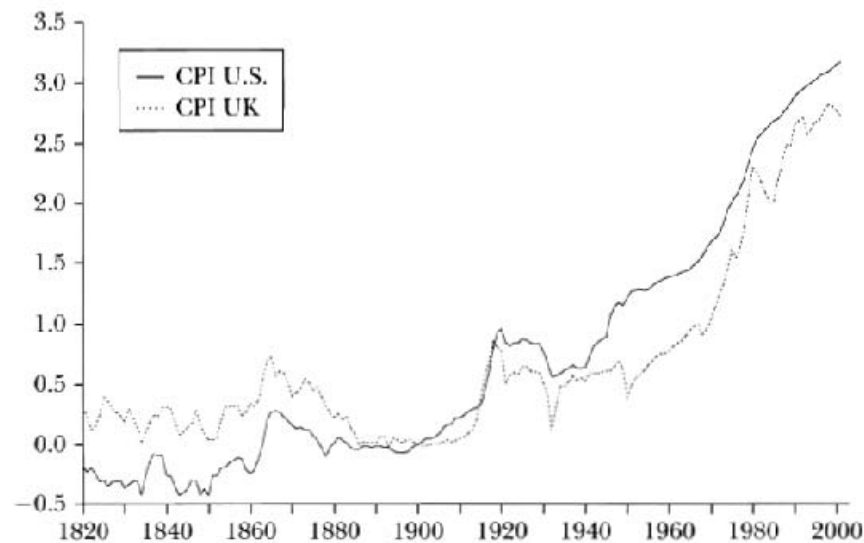


PPP in the long run



Figure 3: Foreign accounts

Figure 7.1: Dollar-Sterling PPP Over Two Centuries



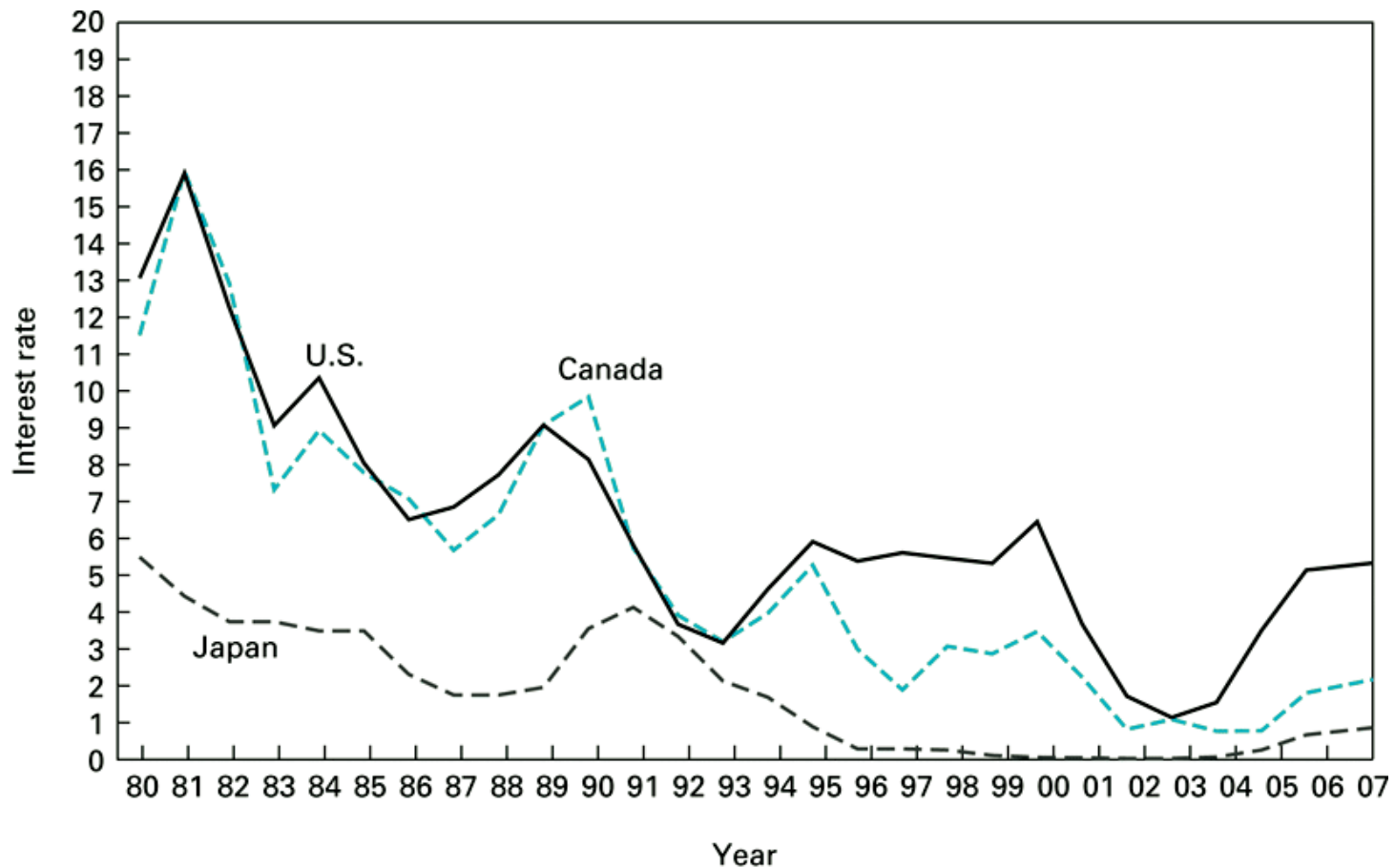
Note: The figure shows U.S. and U.K. consumer price indices expressed in U.S. dollar terms over the period 1820-2001 using a log scale with a base of 1900=0. Source: Alan M. Taylor and Mark P. Taylor, "The Purchasing Power Parity Debate," *Journal of Economic Perspectives* 18, Fall 2004, 135-158.

What explains exchange rate movements? Interest Rates and Exchange Rates



- What is the relationship between exchange rate and interest rate movements?
- Do movements in interest rates cause movements in exchange rates?
- Interest differentials among countries may reflect expected exchange rate changes as well as risk premiums.
- Chapter 15 will discuss interest rates in more detail.

FIGURE 11.2 Interest Rates Across Countries



SOURCE: Data are bank deposit rates from the International Monetary Fund, *International Financial Statistics*.



Interest rates



Additional Major Topics to be Covered Later



- **Additional theories of exchange rate determination.**
- **Foreign exchange risk**—the risk of an unexpected change in the exchange rate.
- **International investment**—portfolio investment and direct investment.
- **International monetary systems (exchange rate systems)**
Properties and history of international monetary systems. Currency crises.

Additional Topics (cont.)



- **International macroeconomics**— determination of income (GDP), interest rates, and exchange rates in an open economy.
- **International debt.** Why countries borrow and lend internationally? What determines whether they lend or borrow?
- Debt crises.

Learning objectives



By the end of the semester, students should be able to address questions like the following:

- What determines a country's composition of its balance of payments vis a vis the rest of the world?
- Why some countries (like Switzerland or Germany) have been running current account (CA) surpluses (net exporters of capital) for many years while other-like Italy or the USA- have been running CA deficits?

Learning objectives

- What are the implications of these CA imbalances for the international distribution of wealth and consumption?
- And for macroeconomic performance in the countries concerned?
- Should we be alarmed by imbalances? Will the US be able to pay back its mounting international debt?
- How? Why Greece (or Argentina) did not?

Learning objectives

- What are the main characteristics of international **debt** crises?
- What causes them?
- How can they be resolved?
- Case study: Greece.

Learning objectives



- Why has Switzerland had a lower real interest rate than the rest of the rich world?
- What has this meant for Switzerland and the Swiss people?
- Is this situation likely to persist in the future?
- Why have real world interest rate been so high in the 80s and so low during the last 10 years?

Learning objectives



- What determines the value of the nominal exchange rate (say the CHF/EUR rate)?
- Are changes in these rates predictable?
- What determines the real exchange rate?
- Is there a relationship between the exchange rate and interest rates?
- The exchange rate and inflation?



Learning objectives

- How can one judge whether a currency is overvalued or undervalued?
- What are the implications of the (over-under) valuation of the currency for international trade competitiveness?
- How can monetary policy deal with over-under valuation?



Learning objectives

- What are the alternative international monetary arrangements (exchange rate systems)?
- What are their macroeconomic implications?
- What are speculative attacks? What causes them?
- How can they be dealt with?



Learning objectives

- Did the formation of EMU make economic sense?
- Does a currency union ever make any sense?
- Would it be in Switzerland's interest to give up its own currency and adopt the EUR (or the dollar!)?
- What would the main costs and benefits be?
- Does the SNB have complete control over the CHF-EUR rate? How?