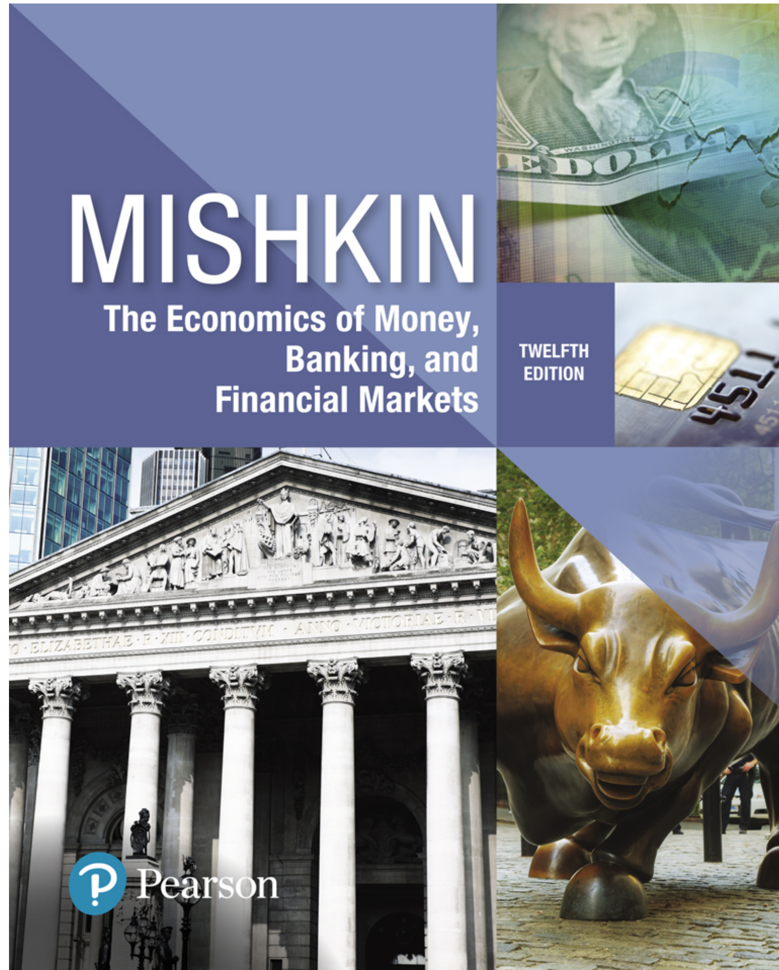
The Economics of Money, Banking, and Financial Markets

Twelfth Edition



Chapter 18

The International Financial System

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Preview

- This chapter examines how international financial transactions and the structure of the international financial system affect monetary policy.

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Learning Objectives (1 of 2)

- Use graphs and T-accounts to illustrate the distinctions between the effects of sterilized and unsterilized interventions on foreign exchange markets.
- Interpret the relationships among the current account, the capital account, and official reserve transactions balance.
- Identify the mechanisms for maintaining a fixed exchange rate and assess the challenges faced by fixed exchange rate regimes.
- Summarize the advantages and disadvantages of capital controls.

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Learning Objectives (2 of 2)

- Assess the role of the IMF as an international lender of last resort.
- Identify the ways in which international monetary policy and exchange rate arrangements can affect domestic monetary policy operations.
- Summarize the advantages and disadvantages of exchange-rate targeting.

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Intervention in the Foreign Exchange Market (1 of 4)

- Foreign exchange intervention and the money supply

Federal Reserve System			
Assets		**Liabilities**	
Foreign Assets	−$1B	Currency in Circulation	−$1B
(International Reserves)			

Federal Reserve System			
Assets		**Liabilities**	
Foreign Assets	−$1B	Deposits with the Fed	−$1B
(International Reserves)		(reserves)	

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Intervention in the Foreign Exchange Market (2 of 4)

- A central bank's purchase of domestic currency and corresponding sale of foreign assets in the foreign exchange market lead to an equal decline in its international reserves and the monetary base.
- A central bank's sale of domestic currency to purchase foreign assets in the foreign exchange market results in an equal rise in its international reserves and the monetary base.

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Intervention in the Foreign Exchange Market (3 of 4)

- Unsterilized foreign exchange intervention:
  - An unsterilized intervention in which domestic currency is sold to purchase foreign assets leads to a gain in international reserves, an increase in the money supply, and a depreciation of the domestic currency.

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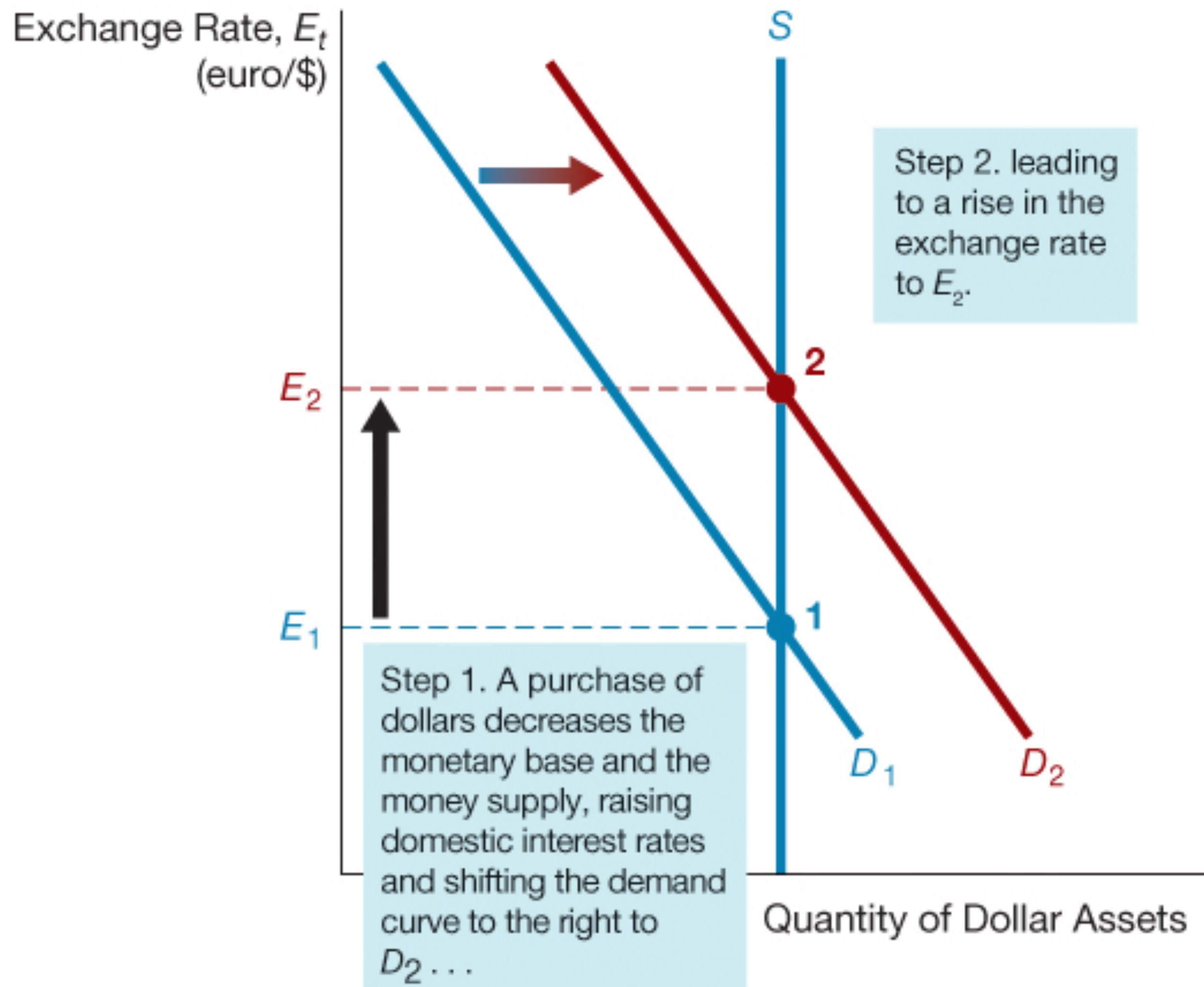
Figure 1 Effect of an Unsterilized Purchase of Dollars and Sale of Foreign Assets



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Intervention in the Foreign Exchange Market (4 of 4)

- Sterilized foreign exchange intervention

Federal Reserve System			
Assets		**Liabilities**	
Foreign Assets (International Reserves)	−$1B	Monetary Base (reserves)	0
Government Bonds	+$1B		

- To counter the effect of the foreign exchange intervention, conduct an offsetting open market operation.
- There is no effect on the monetary base and no effect on the exchange rate.

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Balance of Payments

- Current Account
  - International transactions that involve currently produced goods and services
  - Trade Balance
- Capital Account
  - Net receipts from capital transactions
- Sum of these two is the official reserve transactions balance

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Global: Should We Worry About the Large U.S. Current Account Deficit?

- Persistent trade deficits are a concern for several reasons.
- First, it indicates that, at current exchange rates, foreign demand for U.S. exports is far less than the U.S. demand for foreign goods.
- Second, a current account deficit means that foreigners' claim on U.S. assets is growing.

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Exchange Rate Regimes in the International Financial System (1 of 3)

- **Fixed exchange rate regime**
  - Value of a currency is pegged relative to the value of one other currency (anchor currency)
- **Floating exchange rate regime**
  - Value of a currency is allowed to fluctuate against all other currencies
- **Managed float regime (dirty float)**
  - Attempt to influence exchange rates by buying and selling currencies

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Exchange Rate Regimes in the International Financial System (2 of 3)

- **Gold standard**
  - Fixed exchange rates
  - No control over monetary policy
  - Influenced heavily by production of gold and gold discoveries
- **Bretton Woods System**
  - Fixed exchange rates using U.S. dollar as reserve currency
  - International Monetary Fund (IMF)

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Exchange Rate Regimes in the International Financial System (3 of 3)

- **Bretton Woods System (cont'd)**
  - World Bank
  - General Agreement on Tariffs and Trade (GATT)
    - World Trade Organization
- **European Monetary System**
  - Exchange rate mechanism

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How the Bretton Woods System Worked

- Exchange rates adjusted only when experiencing a “fundamental disequilibrium” (large persistent deficits in balance of payments)
- Loans from IMF to cover loss in international reserves
- IMF encouraged contractionary monetary policies
- Devaluation only if IMF loans were not sufficient
- No tools for surplus countries
- U.S. could not devalue currency

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How a Fixed Exchange Rate Regime Works

- When the domestic currency is overvalued, the central bank must:
  - Purchase domestic currency to keep the exchange rate fixed (it loses international reserves), or
  - Conduct a devaluation
- When the domestic currency is undervalued, the central bank must:
  - Sell domestic currency to keep the exchange rate fixed (it gains international reserves), or
  - Conduct a revaluation

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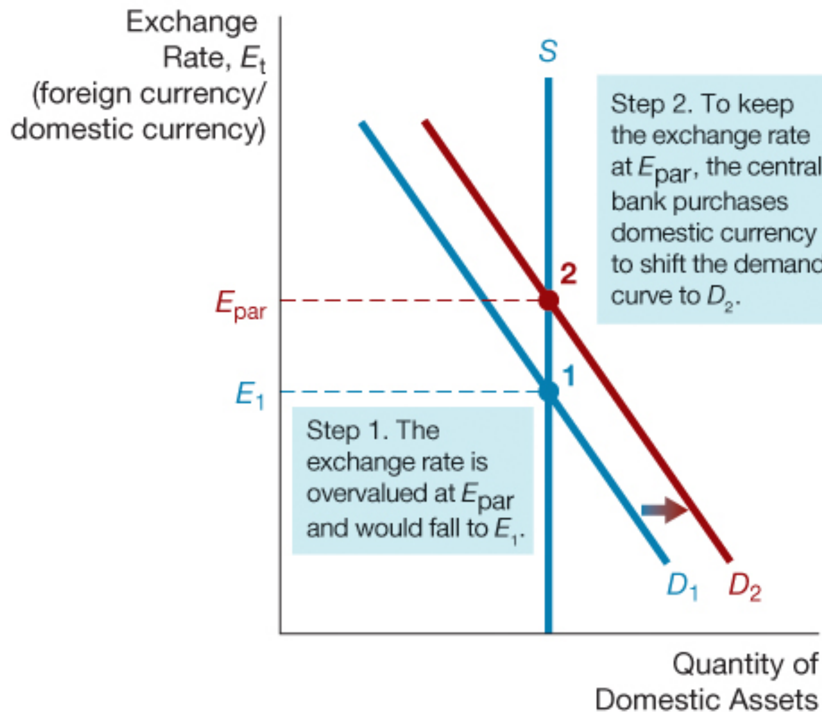
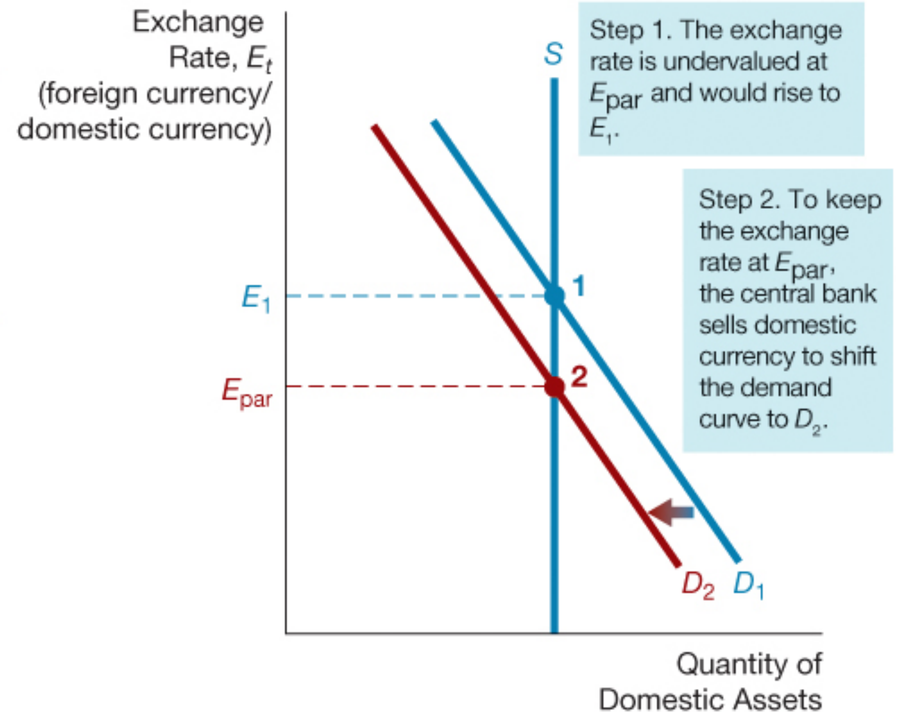
Figure 2 Intervention in the Foreign Exchange Market Under a Fixed Exchange Rate Regime



(a) Intervention in the case of an overvalued exchange rate



(b) Intervention in the case of an undervalued exchange rate

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European Monetary System (EMS)

- Eight members of EEC fixed exchange rates with one another and floated against the U.S. dollar.
- ECU value was tied to a basket of specified amounts of European currencies.
- Fluctuated within limits.
- Led to foreign exchange crises involving speculative attacks. To illustrate consider the market for British pounds in 1992.

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Figure 3 Foreign Exchange Market for British Pounds in 1992

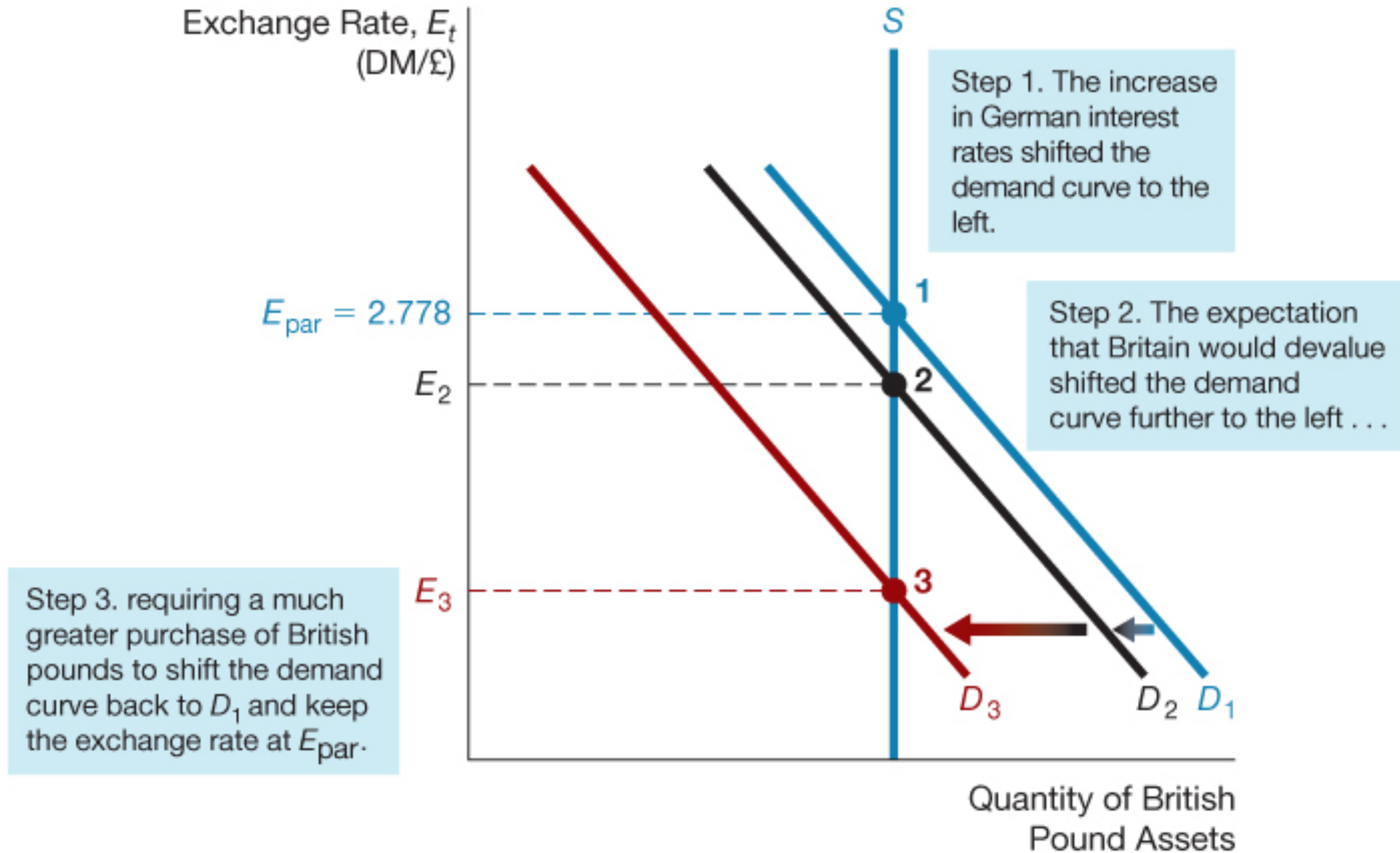

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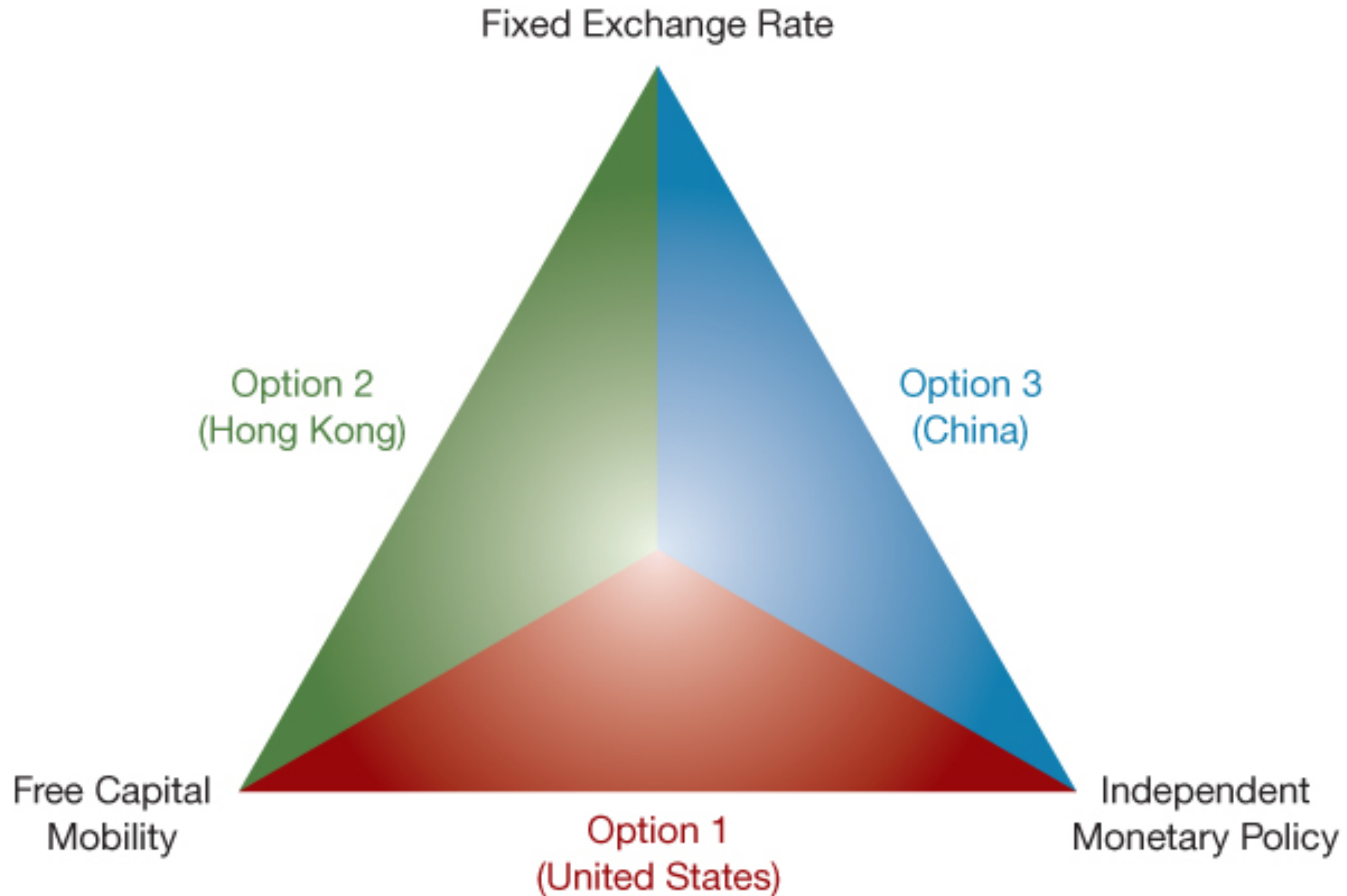
Figure 4 The Policy Trilemma



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Application: How Did China Accumulate $4 Trillion of International Reserves?

- By 2014, China had accumulated $4 trillion in international reserves.
- The Chinese central bank engaged in massive purchases of U.S. dollar assets to maintain the fixed relationship between the Chinese yuan and the U.S. dollar.

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Monetary Unions

- A variant of a fixed exchange rate regime is a monetary (or currency) union, in which a group of countries decides to adopt a common currency, thereby fixing the countries' exchange rates in relation to each other.

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Managed Float

- Hybrid of fixed and flexible
  - Small daily changes in response to market
  - Interventions to prevent large fluctuations
- Appreciation hurts exporters and employment
- Depreciation hurts imports and stimulates inflation
- Special drawing rights as substitute for gold

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Global: Will the Euro Survive?

- The global financial crisis of 2007–2009 led to economic contraction throughout Europe, with the countries in the southern part of the Eurozone hit especially hard.
- This "straightjacket" effect of the euro has weakened support for the euro in the southern countries, leading to increased talk of abandoning the euro.

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Capital Controls (1 of 2)

- Controls on capital outflows:
  - Promote financial instability by forcing a devaluation
  - Seldom effective and may increase capital flight
  - Lead to corruption
  - Lose opportunity to improve the economy
- Controls on capital inflows:
  - Lead to a lending boom and excessive risk-taking by financial intermediaries

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Capital Controls (2 of 2)

- Controls on inflows (cont'd):
  - Controls may block funds for production uses
  - Produce substantial distortion and misallocation
  - Leads to corruption
- Strong case for improving bank regulation and supervision

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The Role of the IMF

- Emerging market countries with poor central bank credibility and short-run debt contracts denominated in foreign currencies have limited ability to engage in this function.
- May be able to prevent contagion.
- The safety net may lead to excessive risk-taking (moral hazard problem).

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How Should the IMF Operate?

- May not be tough enough.
- Austerity programs focus on tight macroeconomic policies rather than financial reform.
- Too slow, which worsens crisis and increases costs.
- Countries were restricting borrowing from the IMF until the recent subprime financial crisis.

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International Considerations and Monetary Policy (1 of 2)

- Balance of payment considerations:
  - Current account deficits in the United States suggest that American businesses may be losing ability to compete because the dollar is too strong.
  - U.S. deficits mean surpluses in other countries $\Rightarrow$ large increases in their international reserve holdings $\Rightarrow$ world inflation.

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International Considerations and Monetary Policy (2 of 2)

- Exchange rate considerations:
- A contractionary monetary policy will raise the domestic interest rate and strengthen the currency.
- An expansionary monetary policy will lower interest rates and weaken currency.

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To Peg or Not to Peg: Exchange-Rate Targeting as an Alternative Monetary Policy Strategy

- Advantages of exchange-rate targeting:
  - Contributes to keeping inflation under control
  - Automatic rule for conduct of monetary policy
  - Simplicity and clarity
- Disadvantages of exchange-rate targeting:
  - Cannot respond to domestic shocks and shocks to anchor country are transmitted
  - Open to speculative attacks on currency
  - Weakens the accountability of policy makers as the exchange rate loses value as signal

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When Is Exchange-Rate Targeting Desirable for Industrialized Countries?

- Exchange-rate targeting for industrialized countries is desirable if
  - Domestic monetary and political institutions are not conducive to good policy making
  - Other important benefits such as integration arise from this strategy

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When Is Exchange-Rate Targeting Desirable for Emerging Market Countries?

- Exchange-rate targeting for emerging market countries is desirable if
  - Political and monetary institutions are weak (strategy becomes the stabilization policy of last resort).

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Currency Boards

- Solution to lack of transparency and commitment to target.
- Domestic currency is backed 100% by a foreign currency.
- Note issuing authority establishes a fixed exchange rate and stands ready to exchange currency at this rate.
- Money supply can expand only when foreign currency is exchanged for domestic currency.
- Stronger commitment by central bank.
- Loss of independent monetary policy and increased exposure to shock from anchor country.
- Loss of ability to create money and act as lender of last resort.

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Global: Argentina's Currency Board

- The currency board experiment in Argentina was initially a stunning success, with inflation falling from 800% in 1990 to less than 5% in 1994.
- Due to the long-term weakness in Argentine exports and bad timing, the currency board ultimately ended in widespread violence and bloodshed in January 2002.

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Dollarization

- Another solution to lack of transparency and commitment
- Adoption of another country's money
- Even stronger commitment mechanism
- Completely avoids possibility of speculative attack on domestic currency
- Lost of independent monetary policy and increased exposure to shocks from anchor country
- Inability to create money and act as lender of last resort
- Loss of seignorage

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