International Currency Experiences:
National and Global Choices

- International currency experiences in the 20th C.
  - The Gold Standard period
  - The interwar 1920-1930 period
  - The Bretton Woods period
  - Post Bretton Woods floating rate period

- Choices for an exchange rate system
  - The need for rules in the international monetary system
  - Arguments for fixed versus floating exchange rates

- The theory of optimum currency areas
  - European Economic and Monetary Union (EMU)
  - The path to EMU, benefits of EMU, what risks lay ahead?
The Gold Standard Era, 1870-1914

- Nations set official “mint parity”
  - US: $1 = 23.22 fine grains of gold; 480 fine grains = 1 troy ounce ⇒ $20.67 = one ounce of gold
  - Given mint parities in UK, France, Germany, …, exchange rates were 4.856 US$/£, 5.183 FFr/US$, and 4.198 DM/US$
- No restrictions on import or export of gold
- National paper currency and coins issued only with gold backing (free convertibility)
- International adjustment via Price-Specie flow
  - Low goods price ⇒ export goods ⇒ import gold ⇒ prices ↑
- Problem: money supply depends on gold discoveries
  - No separate monetary policy, domestic price level ↑↓
Figure 2.1. Wholesale price indexes in the United States and the United Kingdom During the Gold Standard: 1870-1914

Index: 1910-1914 = 100
The Interwar Period, 1914-1938

♕ Chaotic times for the international monetary system
  » UK - Pledges to restore pre-war parity of $4.86 / £
    ◆ To achieve goal, UK needs low inflation ⇒ economic contraction
  » France, Italy others allow currencies to float in early 1920s
    ◆ Extreme volatility, currencies lose value as domestic inflation ↑
  » Germany, massive “hyper” inflation accompany war reparations
  » 1929 (stock market crash); 1930 (Creditanstalt fails); 1933+
    Great Depression
    ◆ UK goes off gold standard in 1931, £ devalues
    ◆ US devalues to $35/ounce gold in 1934
    ◆ World worries about “beggar-thy-neighbor” policies

♕ Lessons of the interwar period
  » Fear of floating (Nurkse report in 1944 to League of Nations)
  » Futility of fixing a rate in the face of shocks (as UK did in 1920s)
The Bretton Woods Period, 1944-1973

The Spirit of the Bretton Woods Agreement

» Fix official par value of currency in terms of gold, or a currency pegged to gold
» Limit short-run variability to +/- 1% of par value, but allow option to adjust par value unilaterally if IMF concurs
» Currencies are convertible for current account transactions, but some capital controls on speculative capital account transactions
» Countries can use reserves or borrowing from the IMF to finance temporary balance of payments deficits
» National macroeconomic policy autonomy permitted; countries can pursue their own price level and employment-growth objectives
The Reality of the Bretton Woods Agreement

» Industrial countries other than the US
  ◆ Countries fixed official par values in terms of US$
  ◆ US$ became international reserve currency
  ◆ To preserve the peg, domestic monetary policy had to be subordinated to external exchange rate policy

» United States
  ◆ Remained passive in the foreign exchange market; allowed free trade but no balance of payments or FX target level
    – The redundancy problem: N countries ⇒ N-1 independent policies or rates; N\textsuperscript{th} country must stay passive
  ◆ U.S. needed to provide a stable price level for rest of world
  ◆ U.S. needed to be international creditor and avoid fiscal deficits
    – Because US debts could be converted to gold at fixed rate
Why Did Bretton Woods Collapse?

- US inflation accelerated in 1960s, lost competitiveness, ran fiscal deficits and BOP deficits
- US debts (liabilities to foreigners) accumulated and exceeded US gold stock at $35/ounce - Triffin Dilemma
- US monetary policy no longer “fits” rest of world
- The “unholy trinity” - a country cannot at once have (1) pegged rates, (2) free capital movements, and (3) independent monetary policy
Post Bretton Woods Period, 1973-date

“Limited Anarchy”
- A mixture of free floating, managed floating, pegged rates, currency boards, and movements toward monetary union
- Slow realization that monetary independence is not a license to have any monetary policy
- Volatile monetary policy, with differences in fiscal policies, technological changes, resource discoveries, … ⇒ volatile exchange rates that may impede trade and capital flows
- Countries need to plan and coordinate with other countries to maintain exchange rates with limited volatility
- Despite the desire for exchange rate stability, more countries allow their countries to float in the 1990s
Exchange rate arrangements in the 90s

Exchange Rate Arrangements Over the 1990s

<table>
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<th>Year</th>
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<th>Managed or Independent Floating</th>
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The need for rules in the international monetary system

Without rules
- Countries can use the international monetary system to gain an unfair trading advantage (by picking undervalued rates)
- Countries can use a pegged rate system to “export” excess monetary expansion (inflation) to partner countries
- Countries that have undisciplined monetary and fiscal policies can create exchange rate volatility that undermines international trade and capital flows among all countries

With rules
- The international monetary system can be a resource that promotes trade and capital flows for all countries
- The international monetary system can promote efficient allocation of capital worldwide
Arguments for fixed versus floating exchange rates

 spécialisé The case for floating exchange rates

 » Monetary policy autonomy: No external constraint on domestic monetary policy (policy independence)
 » Symmetry: Between the United States and other countries, between deficit and surplus countries
 » FX rates as automatic stabilizers: No need for active policy intervention, FX rates move continuously toward equilibrium

 spécialisé Related arguments

 » Small FX changes can be hedged
 » Profitable speculation will be stabilizing
 » Historically, pegged rate has not constrained policy makers
 » Bigger changes under peg make hedging cost high
 » No reserves needed
Arguments for fixed versus floating exchange rates

🔹 The case for **against** floating exchange rates
  » *Policy discipline*: greater under pegged rates, abandoning the peg invites uncoordinated fiscal and monetary policies
  » *Destabilizing speculation*: without a peg, speculators create excessive volatility
  » *Injury to international commerce*: from FX volatility
  » *Uncoordinated economic policies*: more likely with float
  » *Greater policy autonomy is an illusion*: benefits of autonomy may be low, especially if policy changes are anticipated

🔹 Related arguments
  » Floating invites loss of policy restraint, loss of discipline
  » Floating invites vicious circles: inflation-devaluation spiral
  » No real benefit from floating - FX changes primarily nominal
The theory of optimum currency areas

- One central bank ⇒ one money ⇒ one monetary policy
- What is the optimal number of central banks, moneys and monetary policies for an economic region?
  - Efficiency cost of changing money
    - 1 central bank - very high efficiency
    - 1,000 central banks - very low efficiency
  - Tailoring monetary policy to a region
    - 1 central bank - low efficiency, one policy for the whole world
    - 1,000 central banks - higher efficiency, policies for small regions
- Conclusion: pick “N” central banks to optimize “efficiency / tailoring” trade-off
Criteria for designing currency areas: Regions A and B

掐

One central bank and one currency where:

» High labor and capital factor mobility within region
» Business cycles are in phase (no need for multiple monetary policies)
» Trade / GDP is high; need for capital flows high
» LOGIC OF ABOVE: No need to have exchange rate between A & B to accommodate different business conditions in A & B, because factors move or fiscal policies shift to speed adjustment

Two central banks and two currencies linked by adjustable peg or float when:

» Factors are immobile between countries
» Business cycles are out-of-phase (two money policies useful)
» LOGIC: Need an exchange rate to act as an elastic buffer when other links (factor mobility) between A and B are unavailable
The path to EMU

- Origins with EFTA, EEC, EC, EU in 1950s (Chap 11)
- 1979 - European Monetary System (EMS)
  - A cooperation arrangement among 8 EU nations to fix European cross exchange rates within limits
  - Initially, a failure - 11 realignments from 1979-1987
  - Then 5 years of no realignments
  - Mid-1992 & 1993 - serious crisis, large realignments, UK drops out, bands widened for Italy
  - Crisis puts future of EMU in serious doubt
The path to EMU

1991 - Maastricht Treaty, sets EU on path to EMU

- Convergence criteria
  - Budget deficit < 3% of GDP
  - Public debt < 60% of GDP
  - Inflation within 1.5% of lowest 3 countries
  - Long-term bond yield within 2% of lowest 3 countries
  - No devaluation against other EMS countries for 2 years
- If all criteria are met, then country can enter EMU

1992-1998

- Countries make substantial progress on convergence, but very few actually (strictly) satisfy all criteria
- Euro-fudge: May 1998, EU decides that countries making “substantial progress toward convergence” are accepted
Benefits and Risks to EMU

✧ Benefits of EMU
  » 11 countries share one money and one central bank
  » One money ⇒ No Euro exchange risk or transaction costs
  » Promotes capital mobility, price competition around EMU
  » Scale economies - one large European capital market

✧ Risks of EMU
  » EMU is economic and monetary union, not political union so countries retain national sovereignty on many issues
  » What if shocks are uneven? Suppose Spain is in recession when German economy is accelerating? One monetary policy cannot fit all countries at all times
  » Will process of making monetary policy lead to divisions?
  » Limited scope for fiscal transfers to aid slower economies
Summary on International Currency Experiences

- **Exchange rate system is a critical national choice**
  - Choice is not simply fixed vs. floating, many variations
  - Countries decide by complex process of looking at trade flows, capital flows, synchronization of business cycles, flexibility of goods prices, factor mobility, etc.
  - Countries desire exchange rate that permits international competitiveness in trade, and low volatility to reduce risks

- **The international monetary system reflects the various exchange rate systems and rules of conduct**
  - Rules are essential so that the international monetary system is not used by some countries to disadvantage others
  - The system has gone through major changes through the 20th C
  - EMU is a major experiment: Countries give up their separate monetary policies to capture the benefits of a common currency