



International Monetary Regimes in History

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Some important definitions

- Fixed vs. floating exchange rates
- Specie-based vs. fiat money
- National income accounting identity:
 - $Y = C + I + G + CA$
 - Current account, $CA = EX - IM$
 - $S = Y - C - G$
 - $CA = S - I$
- CA can be positive or negative.
- Real exchange rate = Nom. exchange rate * (P/P^*)
- If there is purchasing power parity, then the real exchange rate is fixed.
- With fixed (nominal) exchange rates, a rise in foreign prices leads to a rise in domestic prices.
- With floating rates the nominal exchange rate will adjust.



The importance of an international monetary order

- A foreign exchange market allows exchange rates to be determined and a global capital market to form.
- Allows current account deficits to be financed.
- With no foreign exchange market trade tends to be *balanced bilateral trade* – tends to reduce trade.
- E.g. if Denmark wants 10 billion kroner of goods from Norway and Norway only wants 5 billion kroner of goods from Denmark, then Denmark can only import 5 billion kroner of goods.
- Think of two people trading without money!
- Foreign exchange markets also provide opportunity for international lending, so savings not constrained by investment demand.



To float or to fix?

- Historically, it was believed that a fixed exchange rate was essential for a well-functioning international monetary order.
- There are many examples in history of fixed exchange rates.
- Prior to the first world war, there was an almost universal long-lasting fixed exchange rate system.
- Since the first world war various unsuccessful attempts have been made to resurrect this.
- Today, the most important currencies are floating.
- An important exception is Denmark. The *kroner* is pegged to the euro.
- ***Why have fixed exchange rates been so unstable and short-lived after 1913?***



(Simplified) macroeconomic policy goals

- Policymakers can often be thought of as aiming for both **internal balance** and **external balance**.
- Internal balance: Full employment of resources; price level stability.
- External balance: Current account should be neither too far in deficit nor too far in surplus.
- The choice of exchange rate regime impacts on these aims.
- We can use these definitions to analyze the successes and failures of historical monetary regimes.



Internal balance

- Underemployment of resources: Waste.
- Overemployment of resources: Less leisure for workers, more breakdowns for machines.
- Price level instability can be caused by over- and underemployment or by expectations of price changes.
- Unexpected price level changes cause redistribution between creditors and debtors.



External balance

- Remember: $Y = C + I + G + NX$, so $NX = S - I$
- So a current account deficit means that the country is borrowing from the rest of the world to finance investment. Not necessarily bad if the investment is profitable after paying the interest on the loans.
- Current account surplus can be OK if investment is more profitable abroad.
- But excessive current account deficits can result in a lending crisis, if creditors do not believe that their interest payments can be met.
- Excessive current account surpluses can mean that too little is being invested domestically and may be internationally unpopular, e.g. leading to tariffs.



Chronology

ca. 1870-1914	Fixed: International Gold Standard
1914-1918	World War 1 - Gold standard suspended
1919-1925	Movement toward returning to gold
1925-1931	Fixed: International Gold Standard
1931-1939	Managed floating
1939-1945	World War 2
1945-1950	Gradual return to fixed rates
1950-1973	Fixed-but-adjustable: Bretton Woods dollar exchange standard
1973-present	Regionally fixed, globally floating

The International Gold Standard ca. 1870-1914



- Gold has been used as money (medium of exchange, unit of account and store of value) since ancient times.
- 1819 UK Resumption Act:
 - Resumed (after Napoleonic Wars) and institutionalized the practice of exchanging currency notes for gold on demand at a fixed rate.
 - Repealed restrictions on export of gold.
- Britain becomes leading economic power.
- Other countries followed Britain's lead, e.g. US in 1870s.
- Previously bimetallic systems were popular (silver and gold).
- London became centre of international monetary system.

Working of the pre-WW1 gold standard



- Currency freely convertible to gold.
- Since all currencies are fixed in terms of gold, then all exchange rates are also fixed. (Arbitrage)
- E.g. if one krone is worth 1 ounce of gold and one pound is worth 3 ounces of gold, then you could buy three kroner for a pound.
- Small deviations, "gold points", were possible due to transport/transaction costs.
- Money backed by gold reserves.
- If there is a short-run liquidity crisis, then the central bank should lend freely to private banks at a higher rate of interest.
- Temporary suspension should be followed by restoration of convertibility as soon as possible. (e.g. by deflation)
- Price level determined by gold supply/demand.



Why is the pre-WW1 period interesting?

Many similarities between pre-WW1 and post WW2:

- Long period of relative peace in Europe (from 1871).
- Considerable market integration (globalization)
 - Labour more mobile than today
 - Capital at least as mobile as today
 - Trade in many respects freer than today
- Spirit of internationalism.
- Background for many of the attempts to form international monetary arrangements in the twentieth century.



Attempts at currency unions

- Some countries tried to take the gold standard further and form monetary unions:
 - 1865 Latin Monetary Union
 - 1875 Scandinavian Monetary Union
 - etc.
- *If we do nothing, what then? Why, we shall be left out in the cold. Before long, all Europe, save England, will have one money, and England be left standing with another money.*

– The Economist, 1860



External balance under the Gold Standard

- Central banks should be neither gaining nor losing too much gold from abroad.
- I.e. avoid sharp fluctuations in balance of payments. Surplus or deficit financed by gold shipments between central banks.
- Many governments took a laissez-faire attitude, i.e. Britain's surplus was 5.2% of GNP on average!
- Price-specie-flow mechanism (Hume, 1752). Automatically ensured balance of payments equilibrium.
 - If gold is flowing to Britain, then British prices are rising and foreign prices are falling.
 - Increases British demand for foreign goods and decreases foreign demand for British goods.
 - So gold flows out again! Equilibrium restored.
 - Reinforced by central bank practice of raising interest rates if losing gold, "Rules of the game". Not always the case in practice.



Violations of rules of the game

- In practice, central banks were more worried about gold losses than gold gains.
- It was common to *sterilize* gold inflows: central banks built up excess reserves and did not permit the money supply to increase.
- So why did the system survive so long?
 - Commitment – Deviations from the gold standard would be followed by a return to the original parity.
 - Confidence – People believed that rates would remain fixed, so speculation was equilibrating.
 - Symmetry – All national price levels dictated by gold demand/supply.



Internal balance under the gold standard

- Economic policy subordinate to external objectives.
- Gold standard ensured price stability over longer periods.
- For shorter periods there was inflation or deflation depending on the worldwide demand and supply of gold.
- Internal policy objectives (e.g. combating unemployment) not considered important before WW1.
- Although e.g. in the US unrest during 1890s deflation had political consequences:
 - “Silver risk”



World War 1 and after (1914-1918-1925)

- Gold standard suspended.
- Expenditures financed by printing money.
- Inflation!
- After the war: some governments financed reconstruction by printing more money!
 - e.g. German hyperinflation, reached 3.25 million percent per *month*!
 - Money was useful for lighting the stove...





Return to gold

- 1919 US returns to gold.
- Pre-WW1 seen as a golden age.
- But now internal objectives were much more important: spread of democracy, powerful trade unions. (Socialism, communism)

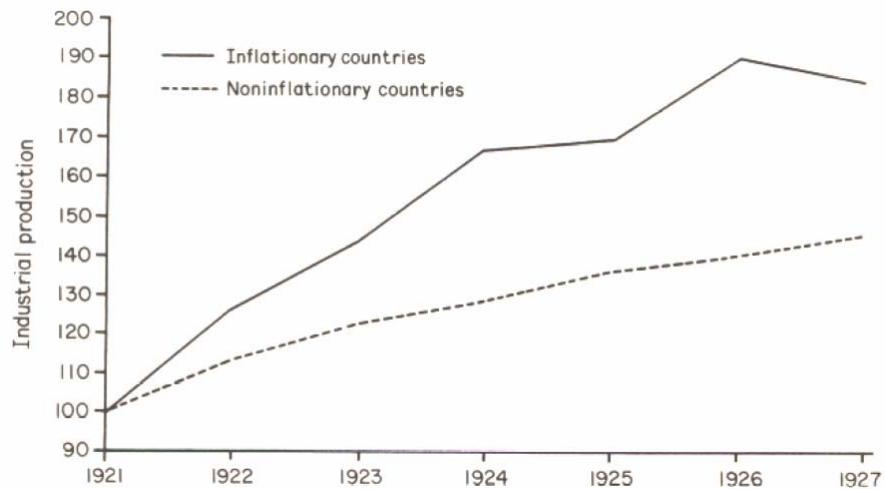


Deflationary vs. inflationary countries

- Some countries return to gold at the pre-war parity.
- E.g. 1925 UK returns to gold at pre-war price:
 - UK wanted to restore confidence in the gold standard and its ability to manage the system.
 - Required deflation – contractionary monetary policy.
 - Led to severe unemployment.
- Other countries reduced the mint parity.
- E.g. France rejoined at 20% of pre-war level.



Industrial growth in deflationary and inflationary nations in Europe in the 1920's.



1929 Wall Street Crash and the Great Depression

- US trying to slow overheated economy through monetary contraction.
- France ending inflationary period with return to gold.
- France and US absorbing world's gold (reached 70% of world supply!).
- Other countries forced to restrict money supply.
- This worldwide monetary contraction and the Wall Street Crash led to the Depression.
- 1931 UK losing reserves and forced off gold.
- Other countries follow e.g. Scandinavia.
- France leaves last in 1936.

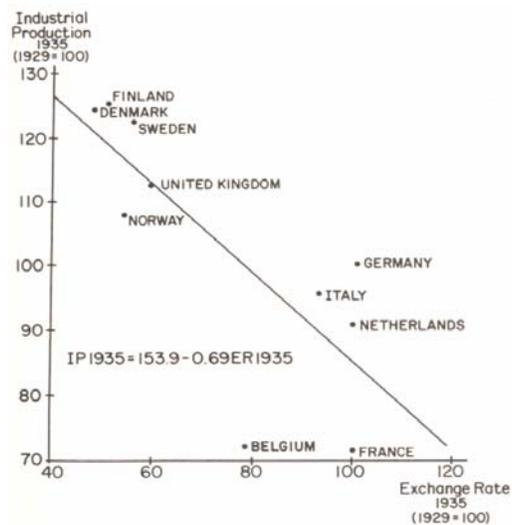


What was the impact of the gold standard?

- The Great Depression had worldwide impact.
- Wall Street crash, unemployment and bank failures.
- Recent research suggests that the gold standard played a large part in prolonging and worsening the Depression.
- Bank failures worsened because countries refused to provide liquidity since they needed to protect their gold reserves.
- Countries (such as the UK) which left the gold standard early enjoyed faster recovery than countries like France, which did not.
- Devaluation meant that
 - industry became more competitive.
 - real wages and real interest rates declined
 - monetary policy could be used.



Changes in exchange rates and industrial growth, the 1930s.





Reaction to the Great Depression

- Countries gradually left the gold standard.
- Beggar-thy-neighbour policies (such as the US Smoot-Hawley tariff) were implemented.
- Restrictions on capital flows were implemented to offset reserve movements caused by uncertainty.
- Countries became more autarkic.
- Avoided external imbalance...
- ...at a terrible cost to the world economy.
- World trade declined.
- Fascism in Europe.
- The progress of the nineteenth century was put back almost to square one.



Bretton Woods and the International Monetary Fund (IMF)



- July 1944: 44 countries sign Articles of Agreement of IMF.
- Hoped to design system that would allow both internal and external balance without trade restrictions.
- Result of interwar experience. Floating exchange rates seen to be cause of instability and harmful to trade.
- BW system was a gold exchange standard:
 - Fixed dollar price of gold: \$35 an ounce.
 - Member countries hold reserves in gold or dollar assets.
 - Right to sell dollars to Federal Reserve for gold at official price.
 - Currencies fixed to dollar: N-1 exchange rates.
 - So countries responsible for maintaining exchange rate, US responsible for maintaining dollar price of gold.
 - Some flexibility allowed.

Flexibility



1. IMF lending facilities: Pool of gold and currencies from member countries could be used to lend to members who were experiencing current account deficits, but where contractionary policy would lead to unemployment. Members who borrowed from the IMF would be supervised by the IMF.
2. Adjustable parities: If balance of payments in "fundamental disequilibrium" (not defined!). Allowed devaluation against dollar if countries suffered permanent adverse international shifts in the demand for their products. Not available to Nth currency, the dollar.



Convertibility

- IMF articles of agreement urged convertibility as soon as possible. (Important efficiency implications)
- Only required convertibility on current account (goods and services) *not* financial account (financial assets).
- Interwar experience led to belief that private capital movements and speculation led to instability.
- US & Canadian dollars convertible from 1945.
- US dollar becomes key international currency.



Why the restriction on capital mobility?

- Remember from first year macroeconomics: an expansionary monetary policy results in a tendency towards depreciation of the domestic currency.
- With a fixed exchange rate arbitrageurs sell the (cheap) domestic currency to the central bank for the high fixed rate.
- In this way the central bank is forced to restrict monetary supply.
- The monetary policy instrument is thus unavailable when exchange rates are fixed.
- However, limiting capital flows limits arbitrage, and expansionary monetary policy is again possible.



External balance under Bretton Woods

- First decade of Bretton Woods: Reconstruction after war.
- Dollars needed to finance reconstruction: "dollar shortage".
- Helped by Marshall Plan in 1948.
- Current account deficits limited by difficulty of obtaining foreign credit.
- Convertibility restored in 1958.
- Although still capital restrictions, was possible to borrow from abroad by delaying payments for goods and vice versa. "Leads" and "lags".
- Much more financial integration. Gave possibility of speculation.



Special Drawing Rights

- Introduced in late 1960s.
- 1 SDR = 1 USD
- Allocated in proportion to subscription to IMF.
- Could be used to settle current account imbalances.
- A country in deficit could deposit SDRs in a surplus country in return for foreign currency.
- Allowed for greater international liquidity, but in practise the main provider of foreign reserves was the US.
- US has almost permanent deficit due to heavy investment abroad (paid for with dollar assets).
- Most countries were happy to hold dollar assets, since they gave interest (which gold does not).
- An exception was - of course - France!



Speculative problems

- If countries had large and persistent current account deficits, then they might be suspected of being in “fundamental disequilibrium”.
- Prompted destabilizing speculation.
- Bretton Woods lacked the credibility of the pre-WW1 gold standard.
- UK devalued in 1967.
- France devalued in 1957, 1958 and 1969.



Triffin credibility problem

- By 1960s the Federal Reserve gold stock was a small fraction of US international liabilities.
- Triffin suggested that a credibility problem destroyed the Bretton Woods system, as foreigners worried that dollars were not “as good as gold”.
- Dilemma:
 - If US does not have balance of payments deficit, then there will not be sufficient international liquidity, which might lead to a recession.
 - If US does have balance of payments deficit, then the gold convertibility and credibility vanishes, destroying the system.
- But this was not what destroyed the Bretton Woods system!



The N-1 problem

- The Bretton Woods system was asymmetrical (unlike the gold standard).
- Only the US had the freedom to set its interest rate / use monetary policy.
- All other countries had to use monetary policy to keep their currencies tied to gold.
- They could in principle discipline the US, but they needed the dollar reserves to finance fast expanding trade!
- Remember: if the domestic currency is fixed to the dollar, then domestic prices will move with US prices.



Inflation in the US forced on Europe

- In the 1960s Democratic administrations
 - expanded welfare spending: the "Great Society".
 - got involved in the Vietnam war.
- Led to budget deficits and expansionary monetary policy.
- Inflation doubled.
- European governments had other inflation targets, but were forced to import US monetary policy.
- German solution was to revalue: in 1961 and 1969.
- US inflation made the dollar overvalued and devalued against gold in 1971.
- But inflation continued, and gold convertibility was abandoned in 1973.

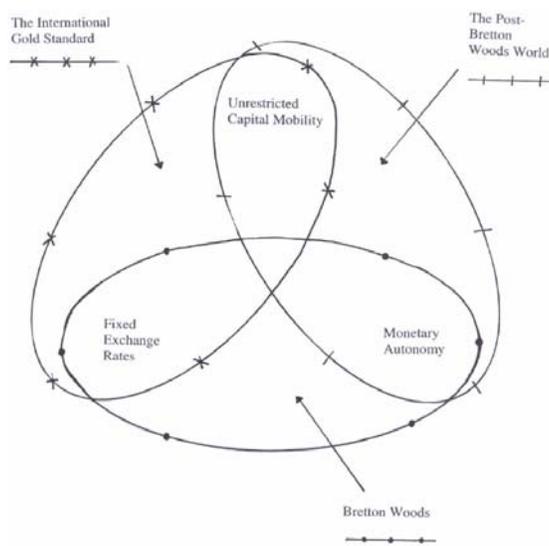


1970s to today

- Initially floating exchange rates seen as a temporary measure.
- However, no new worldwide fixed exchange rate system seems likely.
- There have been and are regional attempts at regional cooperation, e.g. European ERM which collapsed in 1992.
- Recently, the problems of fixed exchange rates have been sought avoided by abolishing exchange rates altogether: the euro.
- There is now little interest in an international fixed exchange rate system, since floating exchange rates have shown themselves to be compatible with free capital flows and trade.



The open economy trilemma





A summary: Fixed exchange rates are made to be broken!

1. Prior to WW1 governments emphasized external balance at the expense of internal balance. The gold standard thus combined free capital mobility and a fixed exchange rate, whilst leaving little room for monetary policy.
2. After WW1 governments desired a return to the stability of the Gold Standard, but could no longer ignore internal objectives. This led to a collapse in the gold standard.
3. After WW2 governments desired fixed rates with the flexibility to use monetary policy to reach internal balance. The Bretton Woods system thus required capital controls.
4. Increasing trade and economic integration meant that capital controls were no-longer feasible and the Bretton Woods system collapsed.
5. From the 1970s the goal of fixed exchange rates has been dropped.



References

This presentation draws (very) heavily on Krugman & Obstfeld, "International Economics" and Persson, "A Note on International Monetary Regimes in History"



Next time

Ingrid Henriksen will talk about:
Changes in economic leadership, pp. 30-47 in
A. Maddison, *Dynamic Forces in Capitalist Development*,
Oxford: Oxford University Press, 1991.