

## Chapter 19: International Monetary Systems

Focus on international interrelations.

Four periods

1870 - 1914

1918 - 1939

1946 - 1973

1973 -

### Policy Goals writ Broad

Internal balance: FE, P stability

External balance: CA balanced, some kind  $CA = 0$  std!

$CA < 0 \Rightarrow$  a country is borrowing from ROW

- may be desirable if invest + can pay back
  - "undesirable if "have a party" and can't pay back
- Well, at least this is more complex.

- a ~~CA~~ surplus  $\Rightarrow$  lending to ROW

NB: Neither bad nor good: intertemporal trade

Problems with

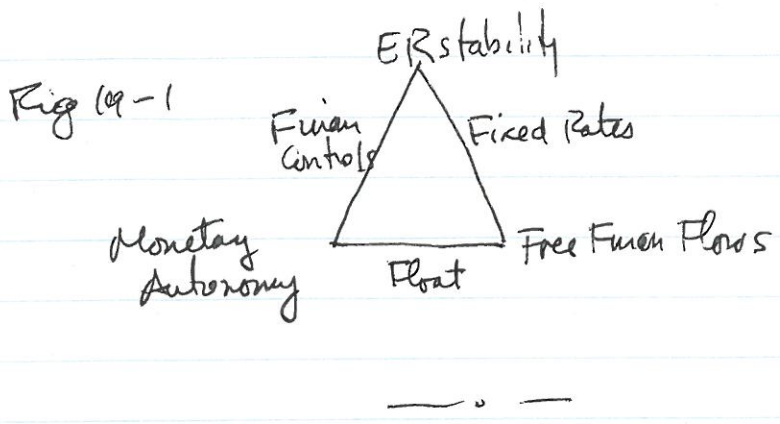
$CA < 0$ : intertemporal budget constraint

• sudden stop in foreign lending!

$CA > 0$ :  $S = CA + I \Rightarrow$  Some saving is going abroad

### Open Economy Trilemma

- Exchange Rate Stability
  - Monetary policy directed toward domestic targets
  - Capital Mobility (freely accessed)
- \* only 2 of 3 are compatible in general



Gold Standard

1819 in Britain

"Central Bank" fixed price of currency + gold

fixed gold reserves

$dB = 0$  is OK, but  $dB < 0 \Rightarrow$  gold outflow

laissez-faire toward current acct but  $CA_{UK}^{SURP} = 5.2\% \text{ of } GDP$

Automatic Adjustment under gold standard (Hume)

$dB = dG > 0 \Rightarrow M \uparrow \Rightarrow P_{UK} \uparrow$

$FM \downarrow \Rightarrow P_F \downarrow$

$\Rightarrow$  'cheaper' goods abroad  
reverses the gold flow.

Goods Flow  $\uparrow$

But "Rules of the Game"

Govt could sell domestic assets  $R \uparrow \Rightarrow$  money (gold flows in!)  
as people willingly exchange gold for high interest assets.

Strong tendency toward balance but surplus countries didn't  
"try" to balance ~~so~~ so deficit countries did much of  
the balancing

Internal Balance w/ Gold Standard

- Good UK price stability, but lots of short-term variation
- "business" cycles in output

No central authority for internal or really even external balance.

No central bank

Gov spending + taxation, very low by current standards

US history interesting

gold + silver both circulated prior to 1860  
greenback during US Civil War

- 1879 - return to gold at pre-Civil War parity
- 1896 - P 40% below 1859! (CROSS of gold)
- 1893 banking panic (OZ)
- farmers wanted inflation
- silver + gold

Interwar Years

1925: Britain return to gold at pre-war parity  
generated deflation + continued unemployment

1929/30: Depression

31 : UK left gold as countries cashed  
for gold run UK 'ran out' - or would have.

Floating Rates

Gold Standard + the transmission of ~~income~~ depression

(1) US / France accumulated gold (70% !)

\* Only w/ floating rates were countries able to have an  
expanded monetary policy

• 1929 - 35 output fell most among countries  
that stayed on gold the longest.

## Bretton Woods

Post 1945 - No disorderly exchange rates

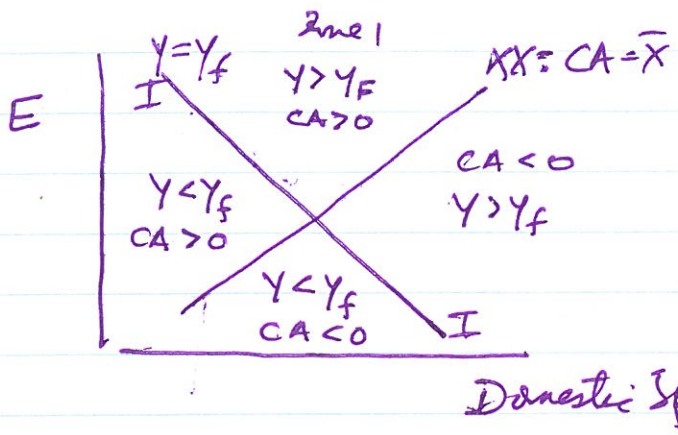
- (1) ER fixed to US\$
- (2) US\$ " " gold \$35 / oz.

Like gold standard insofar as excess money growth (outside US) generates outflow of reserves.

- (3) Pool of funds at IMF - lent to fund temporary imbalances
- (4) E-rate adjustment (deval/reval) to help "fundamental disequilibrium"

~ Capital restrictions were common post-war

- monetary policy restored
- exchange rate stability hoped for.

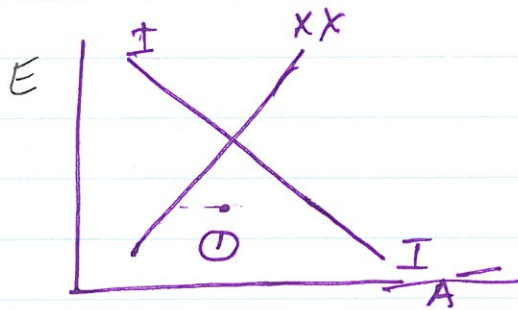


Zones of 'discomfort'

$$Y_f = C + I + G + CA \left( \frac{EP^*}{P}, A \right) = A + CA \left( \frac{EP^*}{P}, A \right) \quad \bar{P}, \bar{P}^*$$

- Fixed Exchange Rate  $\Delta E \Rightarrow$  devaluation or revaluation
- Monetary policy is not a tool
- Fiscal policy is a tool

If at ①



### Tools + Targets

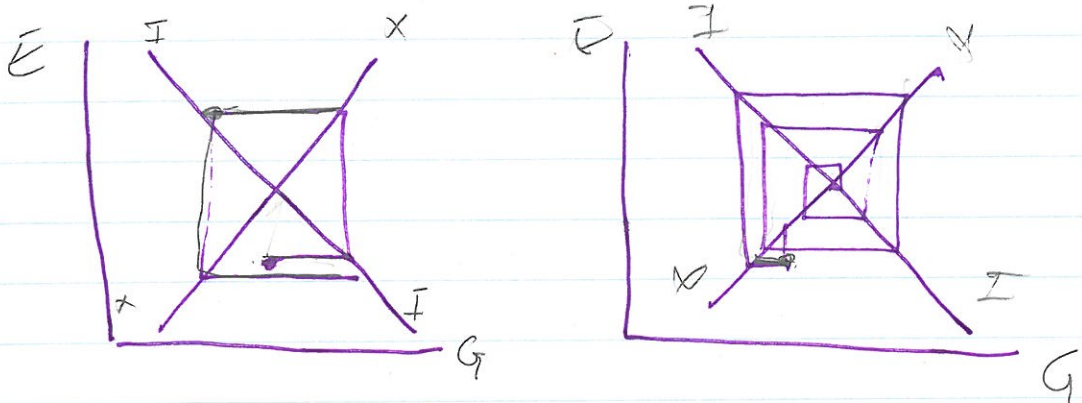
Expenditure Changing policies  $\Delta G$  for example move us East/West  
Exchange Rate changes are expenditure switching policies

- 2 tools & 2 targets
- 1 tool is not sufficient

Need tools to target the right policy assignment

$$\Delta G (\Delta A) \rightarrow \underline{I} ; \Delta E \rightarrow \underline{X}$$

Depends on the shapes of the schedules!



Under Bretton-Woods

$\Delta E$  infrequent

Fiscal policy often had "too much" to do.

In reality it was hard to know the appropriate assignment of tools to targets!

US \$ supplemented Gold as Reserve

As the "N<sup>th</sup>" country US had currency outflow & the problem was that gold stocks at \$35/oz were limited.

"confidence problem" =

World CB's continue to accumulate \$?

## Importing Inflation under BW

$$(1) M = L(Y, R) \cdot P$$

$$M_1 + E_{12} M_2 + E_{13} M_3 + \dots + E_{1n} M_n =$$

$$L_1 \cdot P + L_2 \cdot P + L_3 \cdot P$$

$$\sum M_i = P_w \sum L_i$$

$\therefore P_w$  is determined by world money demand and supply

(2) For any one country (N-1)

$$M_s = ER + D \quad E = 1$$

$$M^d = PL(Y, \bar{R})$$

$$M^s = M^d$$

$$R + D = PL(Y, \bar{R})$$

$$R = PL(Y, \bar{R}) - D$$

$$dR = P dL + L dP - dD$$

$$B = dR = L dP + P dL - dD$$

Since  $P = P_w$  for each country, for all (N-1)

surpluses in BOP arise from

(a) increases in world  $M^s \Rightarrow P_w \uparrow$

(b) " " local  $L$  which arise

from faster rates of growth of income

(3) The reserve currency, the US\$, can generate higher world prices and it retains ~~and~~ a more independent monetary policy than any other country.

(4)  $\therefore$  higher US monetary growth can increase world inflation.



In and around 1973, the US did not want to retain its fixed rates.

- (a)  $B < 0$ . This led to domestic pressures on employment. During a recession,  $B < 0$  was undesirable politically. "Exporting jobs by importing foreign goods"
- (b) The US formally severed the link of the US \$ with gold and
- (c) imposed tariffs on imports in an effort to force countries to sever the fixed link w/ the US \$.

Internationally countries began to let their exchange rates float.

- (1) Regain independent monetary policy
- (2) End BofP crises
- (3) End speculative 'runs' on currencies

- (1) indep. monetary policy
- (2) symmetry
- (3) exchange rates act as automatic stabilizers
- (4) exchange rate help adjust BofP surpluses + deficits.