

Handout 6: Exchange rate regimes and macroeconomic performance

a) Flexible

b) Managed float

c) Fixed:

Perfectly rigid (Argentina) vs target zone (EMS)

Unilateral (Austria) vs multilateral (EMS)

Currency board (Argentina, Hong Kong)

d) "Dollarization" (Bolivia)

Euroization "CH"?

I. The fixed exchange rate system

1. Reasons for adopting a fixed regime

Lower Volatility: Fixed regime have been historically associated with significantly lower nominal and -more importantly- real exchange rate variability

Variability, trade and investment

Monetary discipline and credibility: "Import" inflation credibility by tying domestic currency to a stable currency. Does the promise to fix the exchange rate carry greater weight and forces greater monetary discipline than the promise to control inflation without an external commitment? The exchange rate target is harder to fudge (explicit, can be easily monitored by financial markets and the public)

Disinflation: Countries with high rates of inflation often attempt to expedite the disinflation process by fixing the nominal exchange rate.

Loss of competitiveness, decrease in AD.

Imported intermediate and final goods cheaper, reducing both the cost of domestic production and the price of consumption.

2. Concerns about adopting a fixed regime

a. Loss of monetary independence (the narrower the target zone the greater the loss).

$$p = e + p^*$$

$$i - i^* = E s(t+1) - s(t)$$

b. Vulnerability to speculative attacks (more on this later)

A DIGRESSION: EXCHANGE RATE TARGET ZONES

Bretton Woods: 1% around central parity (against USD)

EMS 2.5% around central parity

$$s(t) = z(t) + aE(t)[s(t+1) - s(t)]$$

$$z(t) = \text{fundamentals} \quad s(t+1) - s(t) = i(t) - i^*(t)$$

Standard model

Key assumptions: a) Perfect credibility b) Marginal intervention

Key result:

S pattern for the exchange rate: honey moon effect

(s(t) more stable than its fundamentals)

Empirical implications

a) Distribution of s(t) within the band is U-shaped; s(t) spends most of its time near the edges

Actual behaviour: the distribution is hump-shaped

b) Negative relationship between s(t) and i(t) - i*(t) (or s(t+1)-s(t))

Testing the assumptions directly (and also the honey moon effect): They all fail

Changing the basic model

1. Imperfect credibility

Realignment risk: Implications for S-shape, relationship between s(t) and i(t)-i*(t)

A test of credibility: calculate implied forward rate from interest rate differentials

2. Intra-marginal intervention

Result: Hump shaped distribution of exchange rates

II. The international transmission of business cycles

How are shocks (fiscal, monetary, financial) transmitted internationally under fixed and flexible regimes? Vulnerability to foreign developments, insulation properties.

Critical factors

1. The type of domestic monetary policy (activistic, passive, ...) as well as the informational constraints faced by the monetary authorities
2. The degree of price rigidity and the pricing assumption made (for instance, pricing to market, PTM)
3. The type of shock

The standard IS-LM model:

Under a flexible system, fiscal shocks tend to lead to positive and money demand shocks to negative international business cycle transmission. The opposite transmission pattern is predicted under a fixed regime.

The standard rational expectations model with wage rigidities:

As in the IS-LM model except for the transmission of money shocks under the flexible exchange rate regime (it predicts a positive pattern).

Supply shocks:

Fixed exchange rate

A. Foreign

Expansionary monetary policy abroad and contractionary at home. Negative transmission.

Amplification of business cycle abroad

A. Domestic

Expansionary monetary policy at home and contractionary abroad. Negative transmission.

Amplification of business cycle at home

Flexible exchange rate

Positive transmission.

Stabilization of business cycle

III. A comparison of regimes. The empirical record

Inflation has been lower and more stable under pegged regimes. This is a reflection of slower money supply (discipline) and faster money demand -velocity- growth (credibility)

Demand for money and expected inflation

$$\pi = m - y - v(R) = m - y - v(E\pi)$$

This is a feature that characterizes mostly non- industrial countries!

Output and employment have been more volatile under a fixed regime.

A trade off: Lower and less variable inflation may come at the cost of higher real volatility

Output growth is unrelated to the exchange rate regime