Fixed or Floating: Which is Best?

Prof. Lutz Hendricks

Econ520

March 23, 2023

Currency Crises

Currency Crises

Under the peg: UIP implies $i = i^*$

But what happens if investors doubt the peg?

UIP:

$$i_t = i_t^* + x_t \tag{1}$$

$$x_t = \frac{E^e_{t+1} - E_t}{E_t} \tag{2}$$

x: expected FX appreciation appreciation.

In general, the depreciation term x_t can be positive or negative.

But the peg offers **insurance** to those who bet against the peg: x_t can never be negative.

Currency Crises

Example:

- 25% chance of 20% devaluation over the next month
- $x_t = 0.75 \times 0 + 0.25 \times -0.2 = -0.05$
- investors demand an interest premium of 5% **per month** to compensate for this risk

What would the AS/AD graph for a currency crisis look like?

- Hint:
  $Y = C(Y - T) + I(Y, i^* + x - \pi^e) + G + NX(Y, Y^*, P/(\bar{E}P^*))$

Result: High interest rates lead to a big recession.

Policy Options

1. Raise i by 60%
   major recession as borrowing shuts down
2. Raise i by less than 60%
   - capital outflows
   - CB must sell FX and eventually runs out of reserves
3. Devalue the currency

Crisis Examples

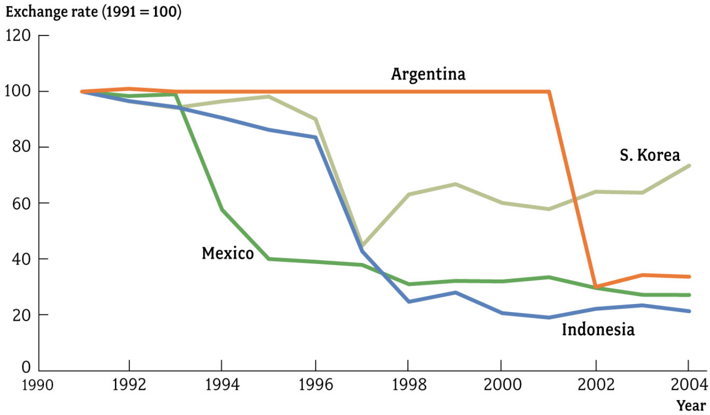

FIGURE 15.7 Depreciations During Several Currency Crises, 1991–2004

Macroeconomics, Charles I. Jones

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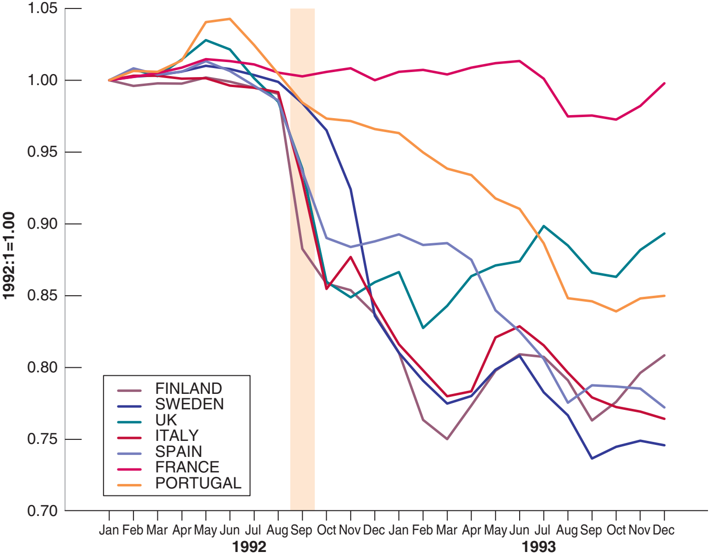
Crisis Examples



Lessons

1. Fixed exchange rates are fragile
    1.1 they can only be sustained as long as investors remain utterly convinced that a peg will hold
    1.2 betting against a peg is insured by the government
2. Fixed exchange rates can collapse without reason
   If many investors believe the peg will fail, it will fail.

Which Exchange Rate Regime Is Best?

The costs of fixing the exchange rate

1. Loss of monetary autonomy.
   - Import the U.S. inflation rate
2. Risk of speculative attacks.
3. Volatile interest rates.
4. Loss of automatic adjustment to certain shocks.

Benefits of fixing the exchange rate

1. Loss of monetary autonomy.
   - Import the U.S. inflation rate
2. Incentives for fiscal discipline.
   - Cannot print money to finance budget deficits.
3. Stable exchange rate

The Impossible Trinity

- Exchange rate regimes pursue 3 goals:
  1. Stable exchange rates
  2. Monetary autonomy
  3. Free capital flows.
- Only 2 of the 3 goals are attainable.

The Impossible Trinity

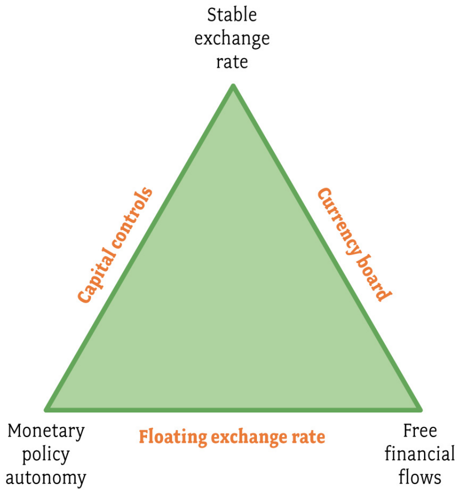


FIGURE 15.6 **The Policy Trilemma in Open Economies**

Macroeconomics, Charles I. Jones

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Which regime is best?

- The answer depends on the characteristics of the country.
- Large, relatively closed countries can handle volatile currencies - they usually float.
- Small countries with a major trading partner may want to peg
  - But beware of pegging against the wrong country (Argentina).
- Countries with questionable central banks may want to peg

Example: Regime Choice

1. USA vs rest of the world
2. Canada vs USA
3. Argentina vs USA vs Brazil

Currency Unions

- If the exchange rate is fixed, why not get rid of it?
- Main example: Euro
- Benefits:
  - lower transactions costs
  - credibility
  - speculative attacks no longer possible.
- Costs:
  - irreversible: cannot devalue in response to shocks
  - loss of monetary policy

Reading

- Blanchard / Johson, Macroeconomics, 6th ed., ch. 21

Additional reading:

- Jones, Macroeconomics, ch. 15.