Fixed or Floating: Which is Best?

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Fixed or Floating?

The model makes fixed exchange rates look very attractive

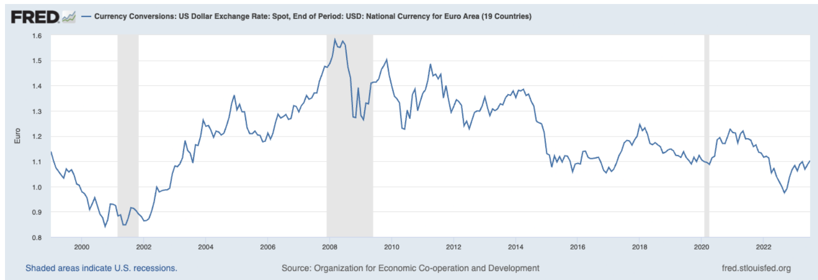
- avoid volatile exchange rates
- gain the exchange rate as a policy tool

Main drawback

- loss of monetary policy tools
- but that can also be a benefit ...

Then why are there so few fixed exchange rate regimes left?

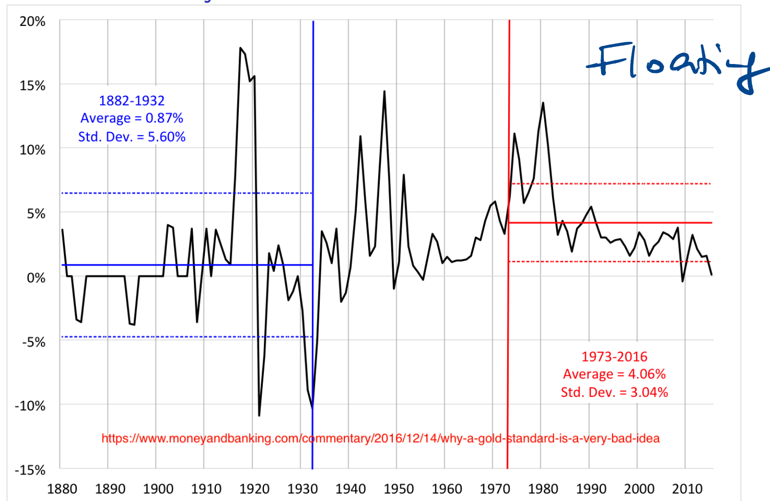
Exchange rate volatility



Even for major currencies, exchange rates fluctuate a lot.

Source: FRED

Inflation volatility



But there is a trade-off: inflation is volatile with fixed exchange rates.

Intuition?

Fixed E

AS: $Y = F\left(\frac{P}{P^e}, \frac{1}{H\mu}, z\right)$

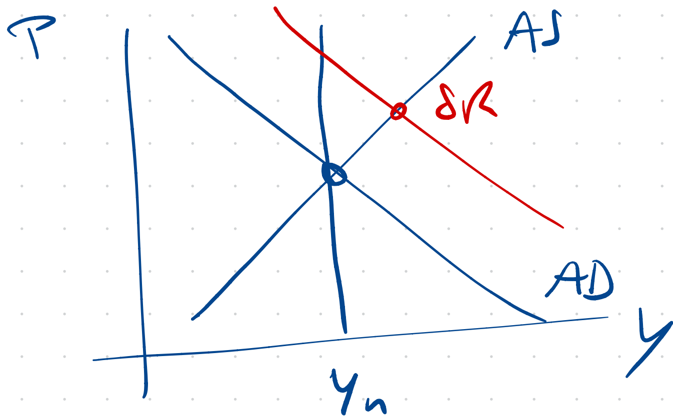
AD: $Y = C(Y-T) + G + I(Y, i^*)$
$+ NX\left(Y, Y^*, \frac{P}{EP^*}\right)$

Shock: $i^* \downarrow$

Floating: \$ appreciates

$\Rightarrow NX \downarrow \Rightarrow$ Contraction ?
$P \downarrow$ $i \downarrow$

Fixed E



$i^* \downarrow$

$i \downarrow$

$I \uparrow$

$M \uparrow$

2. Currency Crises

Currency Crises

Nearly all fixed exchange rate regimes have collapsed

- traders sell a currency, hoping for a devaluation
- "**speculative attacks**"

As capital flows got larger, CBs found it harder to defend against attacks.

This is the main reason why fixed exchange rate regimes are now rare.

- but "hard pegs" like the EU have become more common.

Crisis Examples

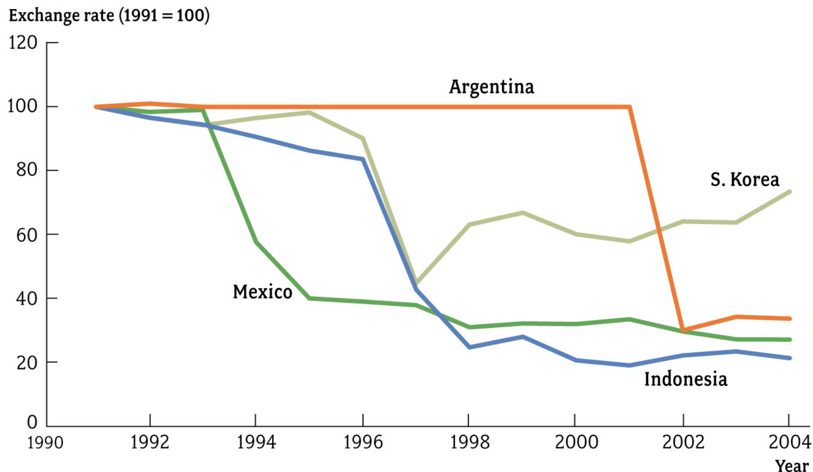


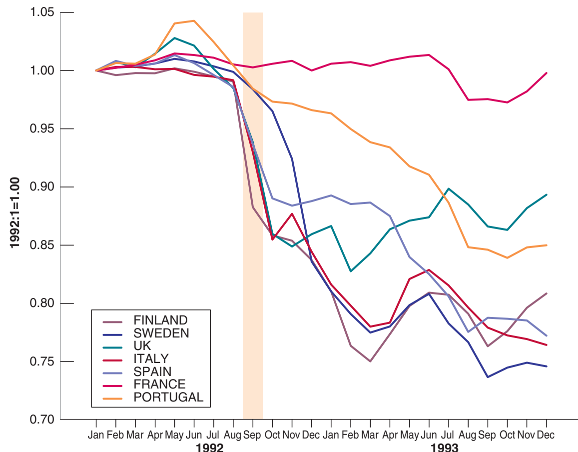
FIGURE 15.7 Depreciations During Several Currency Crises, 1991–2004

Crisis Examples

A typical (Latin American) story:

- a country pegs against the dollar
- large fiscal deficits are financed by printing money
- high inflation causes real appreciation and trade deficits
- the central bank raises interest rates to prevent capital flight
- crash

Crisis Examples



Speculative attacks even hit the Euro zone.

Currency Crises

Why are speculative attacks so common?

The short answer:

- The peg provides **insurance** for speculators who bet against a currency.

With floating:

- The exchange rate could move up or down in the future.

With the peg:

- The currency can only go **down**.
- Then short sellers make large profits.

Short selling is low risk.

The Logic of Speculative Attacks

UIP:

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

$$x_t = \frac{E_{t+1}^e - E_t}{E_t} \tag{2}$$

x: expected FX appreciation appreciation.

Floating: x_t can be positive or negative.

- Selling a currency has upside risk and downside risk.

Peg: the CB ensures that the currency does not appreciate

- x_t can never be negative.
- Selling a currency only has upside risk.

Currency Crises

Even small chances of devaluation have big effects.

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

Policy Options

$i = i^* + x$

x: -5% p.a.

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

What Happens After a Crisis?

A currency crisis typically ends with a large **devaluation**.

Typical problems that follow:

1. The local currency value of external debt rises.
   Trouble making **interest payments**.
   Rising budget deficits.
   Trouble borrowing internationally.
2. **Inflation** rises
   because import costs rise
3. Fiscal contraction causes **recession**.

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.

Currency Unions

One solution: get rid of the exchange rate entirely

- Main example: Euro
- Speculative attacks are no longer possible.

Costs:

- hard to reverse (Brexit)
- EU monetary policy may not suit all countries

Recap Questions

1. Why might a country with a weak central bank choose a peg?
2. Why are interest rates volatile under fixed exchange rates?
3. Why is inflation volatile under fixed exchange rates?

Reading

Blanchard / Johnson, Macroeconomics, 6th or 7th ed., ch. 21

Additional reading:

- Investopedia article on currency crises.
- Jones, Macroeconomics, ch. 15.