

# Fixed or Floating: Which is Best?

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## Fixed or Floating?

The model makes fixed exchange rates look very attractive

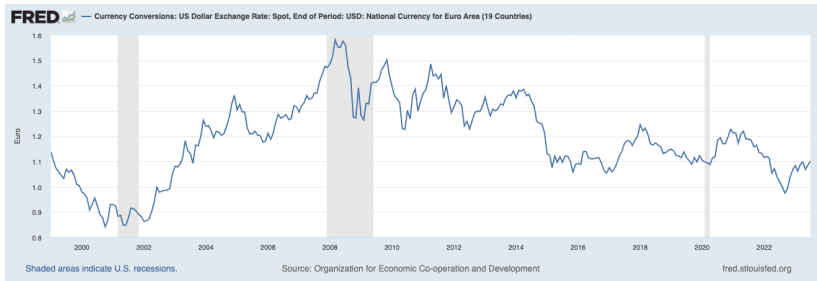
- ▶ avoid volatile exchange rates
- ▶ gain the exchange rate as a policy tool

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?

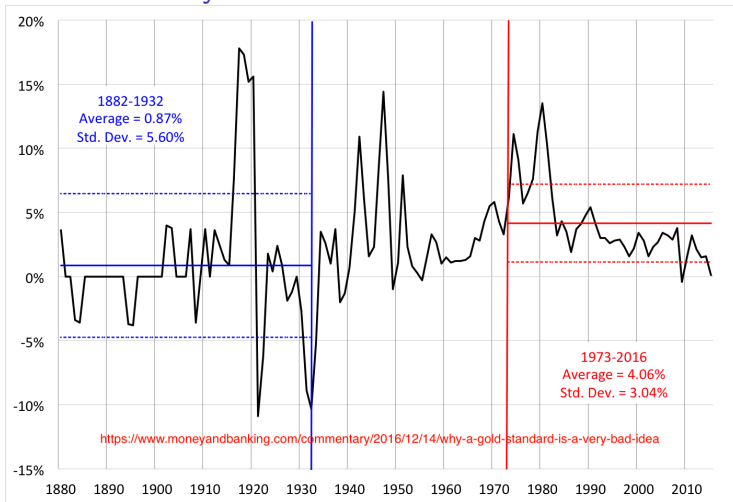
# Exchange rate volatility



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?

## 2. Currency Crises

# Currency Crises

Nearly all fixed exchange rate regimes have collapsed

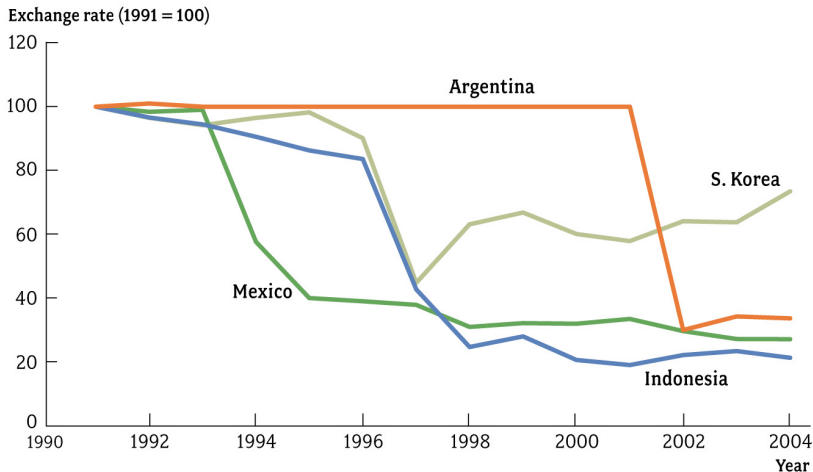
- ▶ traders sell a currency, hoping for a devaluation
- ▶ “**speculative attacks**”

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

Macroeconomics, Charles I. Jones  
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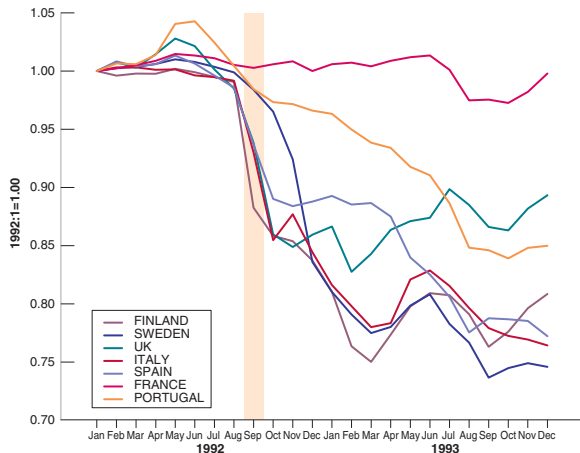
# Crisis Examples

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:

$$i_t = i_t^* + x_t \quad (1)$$

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

$x$ : 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

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.