Exchange-rate Crises

An ER crisis, also called Balance of Payments crisis, occurs when the ER depreciates sharply from a policy of pegging a fixed ER or highly managed one. To be considered a crisis, the devaluation should be at least 10% or so.

The effect of an ER depreciation on an economy can be expansionary or recessionary. The difference arises because of currency substitution, i.e., the use of foreign currencies in domestic credit control and other transactions.

For example, 60% of credit in Argentina is in dollars, not in pesos.

In an economy with a high level of currency substitution, firms and banks have a so-called currency mismatch on their balance sheets. Their revenues are in local currency and their debt is in dollars.

When the local currency depreciates, the revenues remain the same while the local currency value of debt increases. As a result firms go bankrupt.

So, in a dollarized economy, an ER depreciation is recessionary. When the economy is not dollarized, only exports are stimulated, i.e., a depreciation is expansionary.
For example, several East Asian economies experienced an ER crisis in 1997.

\[
\begin{array}{c|cc}
 & 1997 & 1998 \\
\hline
Indonesia & 6.7 & -15.5 \\
Malaysia & 7.8 & -0.7 \\
Hong Kong & 5.5 & -6.5 \\
Thailand & -0.4 & -7.0 \\
\end{array}
\]

There are 3 theories explaining the occurrence of ER crises:

1. Crisis driven by fundamental inconsistencies between internal and external policy objectives.
   - A government is running large budget deficits that are partially financed with money creation
   - \( \Rightarrow \) higher inflation
   - \( \Rightarrow \) loss of international competitiveness
   - \( \Rightarrow \) large trade deficits financed by capital inflows
   - \( \Rightarrow \) growing foreign debt
   - \( \Rightarrow \) reversal of capital inflows
   - \( \Rightarrow \) ER devaluation.
According to this theory, the warning signs of a crisis are:
- large budget deficits
- high inflation
- large trade deficit
- rapid money supply growth

2) Economic shocks:

⇒ recession and unemployment
⇒ political pressure to use monetary and ER policy to stimulate the economy
⇒ decision to abandon the fixed ER regime and devalue.

Warning signs:
- slowdown in growth
- rising unemployment

3) Liquidity crisis:

Short-term foreign debts of a country exceed its foreign exchange reserves. Short-term means debt maturity of less than 1 year.
Foreign investors refuse to roll over existing debts
⇒ country cannot meet its foreign currency obligations.
Obligations

-> ERE crisis

Warning signs:
- Large short-term foreign debt relative to revenues (ratio > 1)
- Increase in US interest rates, which pulls funds away from emerging markets to the US.

Moral hazard in international lending contributes to overborrowing and overlending, especially in short-term debt.

An important predictor of crises is an increase in US interest rates as capital moves from emerging markets to the US.

Financial contagion
1) Recession in other countries reduces demand and slows down the economy.
2) Hedging: investors with more information follow the lending behavior of investors with more information.
3) Investors do not distinguish between emerging markets: a crisis in Russia provoked capital withdrawal from Brazil.

Calvo's model

ERE and Banning crises