International Monetary Systems*

Fernando M. Martin
Simon Fraser University

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Basic Setup

Standard OLG model of money.

Agents live for two periods.

There is a single, perishable consumption good.

Agents receive an endowment of the consumption good when young.

Agents want to consume in both periods of their lives.
Two Countries

The world consists of two countries, \( a \) and \( b \).

Each country has its own fiat money.

The consumption good is the same in both countries.

Agents are indifferent to the origin of the goods they consume (i.e., no home bias).

Assume free goods trade between the two countries.
Two Countries (cont.)

Let $y^i$ be the per capita endowment in country $i$.

Let $n^i$ be the population growth rate in country $i$.

Let $z^i$ be the money growth rate in country $i$.

Let $v_{it}^i$ be the value of country $i$ money in period $t$.

Assume new money is used to purchase goods for the government.
Exchange Rate

Monies of the two countries can be traded at exchange rate $e_t$.

The exchange rate is defined as units of country $b$ money in terms of units of country $a$ money.

In other words, $e_t$ is the amount of country $b$ money that can be bought with one unit of country $a$ money.

There is a second exchange rate: units of country $a$ money in terms of country $b$ money. This is just the inverse of $e_t$. 
Exchange Rate: an example

Consider $\textdollar$ (dollars) and € (euros).

Suppose exchange rate is half euro per dollar. Then:

\[ e_t = \frac{\text{€}}{\text{\$}0.5} \]

If we have $\text{\$}10$, we can exchange them for €5:

\[ \frac{\text{€}}{0.5} \times \text{\$}10 = \text{€}5 \]

(notice that the “$” got canceled).
Money Choice

An owner of 1 unit of country $a$ money has the option to:

1. Buy $v_t^a$ goods.
2. Exchange for $e_t$ units of country $b$ money and buy $e_t v_t^b$ goods.

An owner of 1 unit of country $b$ money has the option to:

1. Buy $v_t^b$ goods.
2. Exchange for $\frac{1}{e_t}$ units of country $a$ money and buy $\frac{v_t^a}{e_t}$ goods.
Equilibrium Exchange Rate

Assume agents are free to exchange monies at the exchange rate \( e_t \).

- An agent with 1 unit of country \( a \) money can buy \( v_t^a \) goods or get \( e_t \) units of country \( b \) money and buy \( e_t v_t^b \) goods.
- An agent with 1 unit of country \( b \) money can buy \( v_t^b \) goods or get \( \frac{1}{e_t} \) units of country \( a \) money and buy \( \frac{v_t^a}{e_t} \) goods.

If \( v_t^a > e_t v_t^b \) then all agents prefer to use country \( a \) money.

If \( v_t^a < e_t v_t^b \) then all agents prefer to use country \( b \) money.
Equilibrium Exchange Rate (cont.)

If $v_t^a > e_t v_t^b$, i.e., $e_t < \frac{v_t^a}{v_t^b}$ no exchange of monies occurs:

- Owners of country $b$ money want to exchange it for country $a$ money.
- Owners of country $a$ money do not want to acquire country $b$ money.

Thus, $e_t < \frac{v_t^a}{v_t^b}$ cannot an equilibrium, since owners of country $b$ money are willing to pay a higher price for country $a$ money.

Similarly $e_t > \frac{v_t^a}{v_t^b}$ cannot an equilibrium either.

The equilibrium exchange rate is $e_t = \frac{v_t^a}{v_t^b}$. 
Equilibrium Exchange Rate (cont.)

If agents are free to exchange monies then the equilibrium exchange rate is

\[ e_t = \frac{v_t^a}{v_t^b} \]

Next, we will analyze exchange rates under alternative arrangements.
Foreign Currency Controls

Assume that agents are only allowed to hold the money of their own country at the end of each period.

This restriction does not impose any constraints on the currencies used in transactions.

Old agents can use any currency to buy goods from any country.

Young agents are also free to sell their goods in exchange of any currency.
Money Demand

Goods in either country can be bought with either currency.

Young agents do not demand any foreign currency.

1. They consume out of their own endowment.
2. They cannot hold foreign currency at the end of the period.

If young agents get paid for their goods with foreign currency, they exchange it immediately for local currency at rate $e_t$.

Thus, at the end of each period, young agents hold all the money from their own country.
Market Clearing

Demand for country $i$ money: $N^i_t v^i_t m^i_t = N^i_t(y^i_t - c^i_{1,t})$.

There is one money market clearing condition for each country.

\[ v^a_t M^a_t = N^a_t(y^a_t - c^a_{1,t}) \]
\[ v^b_t M^b_t = N^b_t(y^b_t - c^b_{1,t}) \]

Foreign currency controls imply that the value of local currency is independently determined by its own domestic supply and demand.
Equilibrium Exchange Rate

Agents are free to exchange currencies.

Thus, in equilibrium:

\[ e_t = \frac{v_t^a}{v_t^b} = \frac{N_t^a(y^a - c_{1,t}^a)}{N_t^b(y^b - c_{1,t}^b)} \frac{M_t^b}{M_t^a} \]

The equilibrium exchange rate depends on the relative money demand and supply.

The higher the demand for country \( a \) money, the higher \( e_t \).

The higher the supply of country \( a \) money, the lower \( e_t \).
Evolution of the Exchange Rate

The value of each currency is independently determined:

\[
\frac{v_{t+1}^a}{v_t^a} = \frac{n_a}{z^a} \quad \frac{v_{t+1}^b}{v_t^b} = \frac{n_b}{z^b}
\]

Thus:

\[
\frac{e_{t+1}}{e_t} = \frac{v_{t+1}^a}{v_t^a} \frac{v_{t+1}^b}{v_t^b} = \frac{v_{t+1}^a}{v_t^a} \frac{v_{t+1}^b}{v_{t+1}^b} = \frac{n_a z^b}{n_b z^a}
\]
Evolution of the Exchange Rate (cont.)

Exchange rate evolves according to

\[
\frac{e_{t+1}}{e_t} = \frac{n^a z^b}{n^b z^a}
\]

Changes in the exchange rate over time are driven by:

1. Relative growth rates of money demand
2. Relative growth rates of money supply

If \( e_{t+1} > e_t \) then country \( a \) (\( b \)) money appreciates (depreciates).
Costs of Foreign Currency Control

Suppose agents care about where goods come from. In particular, assume they want to consume goods from both countries.

Old agents wanting to consume foreign goods may either pay with their own local currency or acquire foreign currency.

Young agents getting paid in foreign currency need to exchange for local currency before the end of the period.

Thus, exchange of monies occur which would not be necessary in the absence of foreign currency controls.

If exchanges are costly, then currency controls introduce an inefficiency.
Fixed Exchange Rate

Suppose country $a$ decides to keep a fixed exchange rate. Then it needs to set $e_{t+1} = e_t$, i.e.,

$$z^a = \frac{n^a}{n^b} z^b$$

If country $b$ increases its money growth rate $z^b$, then country $a$ has to respond by increasing $z^a$ by the same proportion.

Note that both countries now have the same inflation rates since $\frac{z^a}{n^a} = \frac{z^b}{n^b}$.

In effect, country $a$ looses its independence in monetary policy when it decided to fix the exchange rate.
Exchange Rate Indeterminacy

Consider the case where agents are free to use and hold any currency (i.e., no foreign currency controls).

The money supply and demand for each country cannot longer be determined separately.

There is one world market for money. Market clearing implies

\[
v^a_t M^a_t + v^b_t M^b_t = N^a_t (y^a_t - c^a_{1,t}) + N^b_t (y^b_t - c^b_{1,t})
\]

\[
v^a_t = e_t v^b_t
\]

There are 2 equations, but 3 unknowns: \(v^a_t\), \(v^b_t\) and \(e_t\).
Exchange Rate Indeterminacy (cont.)

Write the system as one equation:

\[ v_t^b (e_t M_t^a + M_t^b) = N_t^a (y^a - c_{1,t}^a) + N_t^b (y^b - c_{1,t}^b) \]

Any pair \( \{v_t^b, e_t\} \) that satisfies the above equation is an equilibrium. The equilibrium may even vary over time.

The equilibrium nominal exchange rate is indeterminate, i.e., it cannot be determined by fundamentals.

The nominal exchange rate is thus purely determined by expectations in the foreign exchange market.
How to Think about Indeterminacy

$5$ and $10$ paper notes are exchanged at the fixed exchange rate of $2$ $5$ bills for every $10$ bill.

In Canada, $5$ bills are blue and $10$ bills are purple.

Suppose the Bank of Canada did not include a number in its paper notes. Would blue and purple notes exchange at a rate of $2$ to $1$?

Are there any “fundamentals” that pin-down this exchange rate?
Empirical Support

The following graphs show nominal exchange rates and GDP per capita relative to the U.S. for selected countries.

Relative GDP is a measure of “fundamentals”.

In the data, nominal exchange rates do not seem to be correlated with economic fundamentals.

Note: from 1945 to 1971, most countries were part of the Bretton Woods Agreements, which fixed the value of their currencies in terms of gold.
Figure 1: Canada
Figure 2: France
Figure 3: Japan

The diagram shows the exchange rate (Yen/(USD*100)) and GDP per capita relative to the U.S. for Japan from 1950 to 2000. The exchange rate is depicted with a blue line, and the GDP per capita relative to the U.S. is shown with a teal line. The graph illustrates the depreciation of the Yen against the USD over the years.
Figure 4: United Kingdom

[Graph showing exchange rate and GDP per capita relative to U.S. from 1950 to 2000]
A Model with International Currency Traders

Let us better understand the costs of exchange rate fluctuations.

Assume there are three types of agents:

1. Citizens of country $a$, required to hold only country $a$ money.
2. Citizens of country $b$, required to hold only country $b$ money.
3. Multinational agents, fee to hold any currency (type $c$).

Let $N_t^i$ be the number of agents of type $i = \{a, b, c\}$ born in $t$.

Let $\lambda_t \in [0, 1]$ be the fraction of multinational agents’ money balances, which is held in country $a$ money.
Market Clearing

There is a market clearing condition for each currency:

\[
v_t^a M_t^a = N_t^a(y^a - c_1^{a,t}) + \lambda_t N_t^c(y^c - c_1^{c,t})
\]

\[
v_t^b M_t^b = N_t^b(y^b - c_1^{b,t}) + (1 - \lambda_t) N_t^c(y^c - c_1^{c,t})
\]

Clearly, \( v_t^a \) is increasing in \( \lambda_t \), whereas \( v_t^b \) is decreasing in \( \lambda_t \).

Thus, the exchange rate is affected by \( \lambda_t \).
Equilibrium Exchange Rate

The equilibrium exchange rate is

\[ e_t = \frac{v^a_t}{v^b_t} = \frac{N^a_t (y^a - c^a_{1,t}) + \lambda_t N^c_t (y^c - c^c_{1,t})}{N^b_t (y^b - c^b_{1,t}) + (1 - \lambda_t) N^c_t (y^c - c^c_{1,t})} \frac{M^b_t}{M^a_t} \]

Changes in \( \lambda_t \) cause fluctuations in \( e_t \).

In particular, \( e_t \) in increasing in \( \lambda_t \):

\[
\frac{de_t}{d\lambda_t} = \frac{D^c_t (D^a_t + D^b_t + D^c_t)}{(D^b_t + (1 - \lambda_t) D^c_t)^2} \frac{M^b_t}{M^a_t} > 0
\]

where \( D^i_t = N^i_t (y^i - c^i_{1,t}) \).
Suppose equal total demand for real balances across types, i.e.,
\[ N_t^a(y^a - c^a_{1,t}) = N_t^b(y^b - c^b_{1,t}) = N_t^c(y^c - c^c_{1,t}). \]

Then,
\[ e_t = \frac{1 + \lambda_t}{2 - \lambda_t} \frac{M^b_t}{M^a_t} \]

Suppose further that \( M^a_t = M^b_t \). Then, \( e_t \) can take any value in \([0.5, 2]\).
Costs of Exchange Rate Fluctuations

The exchange rate fluctuates as type $c$ agents change their currency portfolio (i.e., as $\lambda_t$ changes).

Thus, each currency is a risky asset (note that all contracts written in a single currency are also affected).

By construction, agents type $a$ and $b$ cannot insure against exchange rate fluctuations. More realistically, we can think of currency portfolio adjustments as costly for some agents.

The demand for insurance against exchange rate fluctuations may give a justification for central banks to attempt stabilizing the nominal exchange rate.
Fixing the Exchange Rate

There are two fundamental ways in which we could stabilize the exchange rate.

1. Cooperative stabilization.

2. Unilateral defense of the exchange rate.
Cooperative Stabilization

A prime example of cooperative stabilization is the monetary system within a country.

Example: $5 and $10 bills are exchanged at the fixed rate of two $5 bills per $10 bill.

This exchange rate does not depend on how many bills there are of each denomination.

Note however that printing more $10 bills reduces the real value of both bills.
Cooperative Stabilization (cont.)

The exchange rate between bills of the same currency does not depend on other factors, such as:

- Where the transaction is made.
- Where the bill was printed (e.g., in the U.S. each regional Federal Reserve Bank prints its own bills).
- The relative abundance/scarcity of each type of bill.

These factors seem to affect exchange rates between currencies. Why don’t they affect exchange rates of a country’s bills? Because the government credibly commits to exchanging differently valued bills at a fixed rate.
Suppose countries \( a \) and \( b \) agree to fix the exchange rate between their currencies.

In the absence of foreign currency controls (and abstracting from type \( c \) agents), market clearing implies:

\[
v_t^a M_t^a + v_t^b M_t^b = N_t^a (y^a - c_{1,t}^a) + N_t^b (y^b - c_{1,t}^b)
\]

Suppose the countries agree to fix \( v_t^a = v_t^b \). Then,

\[
v_t (M_t^a + M_t^b) = N_t^a (y^a - c_{1,t}^a) + N_t^b (y^b - c_{1,t}^b)
\]
Problems with Cooperative Stabilization

Recall: \( v_t(M_t^a + M_t^b) = N_t^a(y^a - c_{1,t}^a) + N_t^b(y^b - c_{1,t}^b) \)

Suppose country \( b \) increases its money supply, \( M_t^b \).

Under the cooperation agreement, this lowers the equilibrium value of both currencies.

Country \( b \) is exporting inflation to country \( a \).

Since the costs of inflation are borne by all citizens, while the benefits are enjoyed only by the country increasing the money supply, cooperative exchange rate agreements increase the incentive to use the inflation tax.
Problems w/ Cooperative Stabilization (cont.)

Under the agreement, both countries are committed to exchange currencies at a fixed rate.

Suppose now that country $a$ agents want to massively convert their country $a$ money holdings into country $b$ money.

Country $b$ would have to print new money and exchange it for country $a$ money. Would it honor the agreement?

Country $a$ may have incentives to reimpose foreign currency controls, so as to bring its currency back to the country.

All the new country $b$ money would then return to country $b$ creating inflation it did not want.
Unilateral Defense of Exchange Rate

How can a fixed exchange rate be supported without cooperation?

A government could commit to tax its citizens the resources necessary to purchase the foreign currency being demanded.

Note that foreign currency reserves (or stockpiles of gold or other commodities) represent past taxation.
Suppose a country’s commitment to tax its citizens to maintain a fixed exchange rate is fully credible.

Further assume that foreign currency controls are not in effect.

Then, agents are indifferent between the two currencies.

Both currencies are used and held in both countries.

The government may never be obliged to honor its promise.

What makes the promise believable?
To be fully credible, a government must be willing to tax its citizens any amount necessary to finance the purchase of foreign currency.

Is defending a fixed exchange rate worth the costs imposed by taxation?
Unilateral Defense of Exchange Rate (cont.)

Assume country $a$ promises to unilaterally keep the exchange rate fixed at $\bar{e}$.

Country $a$ promises to tax the old to acquire whatever amount of foreign currency is being demanded at rate $\bar{e}$.

Assume there are no foreign currency controls. Thus, agents of both countries may hold any currency.

Market clearing:

$$v_t^b(\bar{e}M_t^a + M_t^b) = N_t^a(y^a - c_{1,t}^a) + N_t^b(y^b - c_{1,t}^b)$$
Suppose agents from both countries decide to exchange a large part of their country $a$ money holdings for country $b$ money.

If country $a$ honors its promise, then $M^a_t$ falls while $M^b_t$ remains the same.

Thus, the value of both currencies increases, i.e., $v^b_t$ and $v^a_t = \bar{e}v^b_t$ both increase.

What is happening? The government from country $a$ is buying country $b$ money (in exchange for goods it taxed) and exchanging it for country $a$ money that agents want to dispose of.
Unilateral Defense of Exchange Rate (cont.)

The increase in the value of both currencies increases the wealth of money holders.

To defend the exchange rate, the country $a$ government had to exchange its own currency for foreign currency at rate $\bar{e}$.

To finance this exchange, the government had to tax its own old agents.

The net effect is a wealth transfer from citizens of country $a$ to citizens of country $b$.

Country $a$ citizens may want a fixed exchange rate. However, they are made worse-off if their government needs to defend the exchange rate by taxing them.
Fixed Exchange Rate: An Example (1)

Stationary environment; ignore time subscripts.

Assume:

- Exchange rate fixed at $\frac{1}{2}$ units of country $b$ money per unit of country $a$ money.
- No foreign currency controls; no multinational agents.
- Constant and equal population, i.e., $N^a = N^b = N$
- Equal money demand, i.e., $N(y^a - c^a_1) = N(y^b - c^b_1) = D$.
- Supply of money: $M^a$ and $M^b$.
- Money holdings evenly distributed, i.e., every old agent holds $\frac{M^a}{2N}$ of country $a$ money and $\frac{M^b}{2N}$ of country $b$ money.
Fixed Exchange Rate: An Example (2)

Helpful notation: define $M^a$.

Suppose $M^a = 10,000$. Then, let $M^a = 10,000$. In other words, $M^a = \frac{\varepsilon}{\$} M^a$.

Thus, if $\bar{e} = \frac{1}{2}$ units of country $b$ money in terms of country $a$ money, then $M^a$ (country $a$ money) is equivalent to $\frac{M^a}{2}$ (country $b$ money).

Example: let $\bar{e} = \frac{\varepsilon_1}{\$_2}$. Then $10,000$ may be exchanged for $10,000 \times \frac{\varepsilon_1}{\$_2} = 5,000$.

i.e., $M^a = 10,000$ exchanged for $\frac{M^a}{2} = \frac{10,000}{2} = 5,000$. 


Fixed Exchange Rate: An Example (3)

Market clearing in the absence of foreign currency controls:

\[ v^b(\bar{e} M^a + M^b) = N^a(y^a - c^a_1) + N^b(y^b - c^b_1) \]

\[ v^a = \bar{e} v^b \]

Apply assumptions:

\[ v^b\left(\frac{M^a}{2} + M^b\right) = 2D \]

\[ v^a = \frac{v^b}{2} \]
Fixed Exchange Rate: An Example (4)

Thus,

\[ v^a = \frac{D}{M^a + M^b} \]
\[ v^b = \frac{2D}{M^a + M^b} \]

Consumption per young and old in country \( i = \{a, b\} \):

\[ c_1^i = y^i - \frac{D}{N} \]
\[ c_2^i = v^a \frac{M^a}{2N} + v^b \frac{M^b}{2N} = \frac{D}{N} \]
Fixed Exchange Rate: An Example (5)

Suppose now that all (old) agents would like to exchange half their country $a$ money holdings for country $b$ money.

Recall that each old agent initially holds $\frac{M^a}{2N}$ of country $a$ money and $\frac{M^b}{2N}$ of country $b$ money.

Each old agent wants to exchange $\frac{M^a}{4N}$ of country $a$ money for country $b$ money.

At $\bar{e} = \frac{1}{2}$ this equals $\frac{M^a}{8N}$ of country $b$ money.

Let us analyze the differences between cooperative stabilization and unilateral defense.
Suppose countries $a$ and $b$ cooperate to maintain $\bar{e}$.

Country $b$ prints $\frac{M^a}{4}$ of its own money to buy $\frac{M^a}{2}$ of country $a$ money.

New supply of country $a$ money: $\frac{M^a}{2}$.

New supply of country $b$ money: $M^b + \frac{M^a}{4}$.

Thus, the real value of total money supply is:

$$v^b \left( \frac{\bar{e}M^a}{2} + M^b + \frac{M^a}{4} \right) = v^b \left( \frac{1}{2} \frac{M^a}{2} + M^b + \frac{M^a}{4} \right) = v^b \left( \frac{M^a}{2} + M^b \right)$$

Same as before. Thus, no change in $v^i, c^i_1, c^i_2$, for $i = \{a, b\}$. 
Fixed Exchange Rate: An Example (7)

Suppose now that countries do not cooperate and country $a$ attempts to unilaterally maintain the exchange rate fixed.

Country $a$ needs to buy $\frac{M^a}{2}$ of country $a$ money.

The real value of this purchase is $\frac{v^a M^a}{2}$.

Tax per old agent: $\tau = \frac{v^a M^a}{2N}$ goods.

At the fixed exchange rate, $\frac{M^a}{2}$ are bought with $\frac{M^b}{4}$ of country $b$ money.

Note: supply of country $a$ money decreases, while the supply of country $b$ money remains the same.
Fixed Exchange Rate: An Example (8)

New supply of country $a$ money: $\frac{M^a}{2}$. Market clearing:

$$v^b\left(\frac{\bar{e}M^a}{2} + M^b\right) = 2D$$

and so

$$v^a = \frac{D}{\frac{M^a}{4} + M^b}$$

$$v^b = \frac{2D}{\frac{M^a}{4} + M^b}$$

Both $v^a$ and $v^b$ are higher than before.
Fixed Exchange Rate: An Example (9)

Consumption per young remains the same: \( y^i - \frac{D}{N} \).

Consumption per old now depends on the country.

In country \( b \):

\[
c^b_2 = \bar{e}v^a \left( \frac{M^a}{2N} - \frac{M^a}{4N} \right) + v^b \left( \frac{M^b}{2N} + \frac{M^a}{8N} \right)
\]

and so

\[
c^b_2 = \frac{D}{N} \left( \frac{1}{2} + \frac{M^b}{M^a} \right) > \frac{D}{N}
\]

which is higher than before.
Fixed Exchange Rate: An Example (10)

In country $a$, agents pay the tax:

$$c^a_2 = \bar{e}v^a\left(\frac{M^a}{2N} - \frac{M^a}{4N}\right) + v^b\left(\frac{M^b}{2N} + \frac{M^a}{8N}\right) - \tau$$

and so

$$c^a_2 = \frac{D}{N} \frac{1}{1 + \frac{M^a}{4M^b}} < \frac{D}{N}$$

which is smaller than before.

In sum, same consumption for all young, lower consumption for old in country $a$ and higher consumption for old in country $b$. 
Speculative Attacks on Currencies

A unilateral fixed exchange rate regime relies on the government’s willingness to tax its citizens to defend it.

How much is the government willing to tax its own citizens in order to sustain a fixed exchange rate?

Suppose the government lacks the will to tax at all. Then, agents anticipate this and consider any promise to fix the exchange rate as meaningless.
Limited Defense

Suppose the government is willing to tax its citizens up to \( F \) goods.

That is, the government is committed to exchange foreign for domestic currency at the fixed rate until the tax bill of this policy reaches \( F \) goods.

If fewer than \( F \) goods worth of domestic currency are turned in for exchange, the fixed exchange is maintained.

However, a limited commitment may encourage speculative attacks in foreign currency markets.
Incentives for Speculative Attacks

Consider an agent holding currency from a country with limited commitment.

Suppose the agent exchanges the country’s currency.

• If the commitment is sufficient to meet such exchanges, nothing happens. The agent is not worse-off than before.

• If the commitment is insufficient, the currency depreciates after the fixed exchange is abandoned. The agent is better-off since he got foreign currency, which appreciated.

The agent either wins or doesn’t lose (up to the transaction costs of the foreign currency exchange).
Cost of Speculative Attacks

If a speculative attack happens, citizens get taxed to defend the exchange.

If the commitment is insufficient, citizens are taxed and their currency still depreciates.

Taxpayers face a can’t-win scenario.
Dollarization

Dollarization occurs when a country adopts the dollar as its currency (you can do it with other currencies as well).

The government dollarizing loses all control of monetary policy and seigniorage.

The idea of dollarization is to implement a credible commitment towards defending a fixed exchange rate.

The degree of commitment with dollarization is clearly higher than a simple fixed exchange rate.

However, how costly is it to default on this commitment by issuing new domestic currency?
Currency Boards

Another commitment device is a currency board.

In its pure form, a currency board issues domestic currency only by buying foreign currency at the fixed rate.

Thus, all the domestic currency in circulation is fully backed by foreign reserves at the monetary authority. In some cases, currency in circulation is only partially backed by reserves.

However, money is more than currency in circulation. I.e., the monetary authority may back all currency, but not all money in circulation, which includes demand deposits.

Also, currency boards can be revoked.
Currency Unions

Currency unions work like multilateral fixed exchange regimes. Individual members do not conduct independent monetary policy.

Monetary policy is delegated to a unique central authority. This avoids the problem of having one country “exporting” inflation to other members.

However, the central monetary authority is subject to the political pressures of member countries in the conduct of policy.