INTRODUCTION TO CURRENCY BOARDS

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Home page

This is a summary of what currency boards are and where they have existed. Read this even if you think you know about currency boards; chances are you will learn something new. The information here was current as of September 2001.

Central banks and currency boards

In most countries today, the monetary authority--the organization that issues the currency--is a central bank. A typical central bank today is a wholly government-owned body, separate from the ministry of finance, that has a monopoly of issuing notes (paper money) and coins. A typical central bank today has a high degree of discretionary power: it is constrained by no monetary rule, such as a binding commitment to a particular exchange rate or inflation rate.

Only a few countries, mainly in Europe, had central banks before the twentieth century. Central banking did not became widespread in the Americas until the period between the First and Second World Wars, and did not become widespread in Africa and Asia until after the Second World War. Until then, countries that now have central banks had a variety of other monetary systems, which generally provided lower inflation and all-around better monetary performance than central banks have done. (For some evidence, see my study Should Developing Countries Have Central Banks?, listed in the Further Reading file of this site.)

Among the other monetary systems that once were widespread were currency boards. Unlike the rest of the other monetary systems, which have all but vanished, currency boards have enjoyed a revival of interest in the 1990s. A few countries have established currency board-like systems, and others have debated whether to have currency boards.

What a currency board is

A currency board is a monetary authority that issues notes and coins convertible into a foreign anchor currency or commodity (also called the reserve currency) at a truly fixed rate and on demand. An orthodox currency board typically does not accept deposits. A currency board can operate in place of a central bank or as a parallel issuer alongside an existing central bank; cases of parallel issue have been quite rare, though.

As reserves, a currency board holds low-risk, interest-bearing bonds and other assets denominated in the anchor currency. A currency board’s reserves are equal to 100 percent or slightly more of its notes and coins in circulation, as set by law. A currency board generates profits (seigniorage) from the difference between the interest earned on its reserve assets and the expense of maintaining its liabilities--its notes and coins in circulation. It remits to the government all profits beyond what it needs to cover its expenses and to maintain its reserves at the level set by law. An orthodox currency board has no

discretion in monetary policy; market forces alone determine the money supply.

Characteristics of a currency board

The main characteristics of a currency board are as follows.

Anchor currency: The anchor currency is a currency chosen for its expected stability and international acceptability. For most currency boards the British pound or the U.S. dollar has been the anchor currency, though for some of the recent currency board-like systems the anchor currency is the German mark. The anchor currency need not be issued by a central bank; a few currency boards have used gold as the anchor currency.

Convertibility: A currency board maintains full, unlimited convertibility between its notes and coins and the anchor currency at a fixed rate of exchange. Though an orthodox currency board typically does not convert local deposits denominated in its currency into the anchor currency, banks will offer to do so for a small fee.

A currency board has no responsibility for ensuring that bank deposits are convertible into currency board notes. That is solely the responsibility of banks. The currency board concerns itself only with the notes and coins that it issues.

Unlimited convertibility into the anchor currency means that in an orthodox currency board system, no restrictions exist on current-account transactions (buying and selling goods and services) or capital-account transactions (buying and selling financial assets, such as foreign bonds).

Reserves: A currency board's reserves are adequate to ensure that all holders of its notes and coins can convert them into the reserve currency or commodity. Currency boards often hold reserves of 105 or 110 percent of their liabilities, rather than just 100 percent, to have a margin of protection should the bonds they hold lose value.

Profits: Unlike bonds or most bank deposits, notes and coins do not pay interest; they are like an interest-free loan from the people who hold them to the issuer. The issuer's profit equals the interest earned on reserves minus the expense of putting the notes and coins into circulation. These expenses are typically less than 1 percent of assets per year. In addition, if the notes and coins are destroyed, the issuer's net worth increases, because liabilities are reduced but assets do not. Typically, the profits from a currency board left after paying all the board's expenses are roughly 1 percent of gross domestic product (GDP) a year.

Using currency issued by a currency board rather than using foreign currency, such as U.S. dollar bills, directly captures seigniorage for the domestic government. Also, use of a domestic currency board issue rather than a foreign currency satisfies nationalistic sentiment.

Monetary policy: By design, a currency board has no discretionary powers. Its operations are completely passive and automatic. The sole function of a currency board is to exchange its notes and coins for the anchor currency at a fixed rate. Unlike a central bank, an orthodox currency board does not lend to the domestic government, to domestic companies, or to domestic banks. In a currency board system, the government can finance its spending by only taxing or borrowing, not by printing money and thereby creating inflation.

Interest rates and inflation: An orthodox currency board does not try to influence interest rates by establishing a discount rate like a typical central bank. The fixed exchange rate with the anchor currency encourages arbitrage that tends to keep interest rates and inflation in the currency board country roughly the same as those in the anchor-currency country. However, exceptions occur in countries replacing highly inflationary central banks with currency boards. In such cases, prices for many goods are initially low in terms of U.S. dollar or German marks, because the domestic currency is so untrustworthy. Under a sound currency there occurs a period of catch-up price increases; inflation, while lower than before, is higher than in the anchor-currency country. This is quite normal and does not create economic pressure to devalue the currency. Price increases taper and annual inflation falls to single digits, as happened in Argentina and is happening in Estonia and Lithuania.

Relation to banks: Just as a currency board has no share in the profits of banks, it has no responsibility for acting as a lender of last resort to protect them from losses. Bank failures have been rare in orthodox currency board systems. They have, however, been common in the recent currency board-like systems, which have inherited many banking problems from the central banking systems that preceded them. Historical experience suggests that lenders of last resort usually create more problems than they solve, because their existence encourages banks to be less prudent than they would otherwise. Accordingly, the best policy is to let troubled banks fail.

Though a currency board holds 100 percent or slightly greater foreign reserves, banks in a currency board system are not required to imitate the currency board. Like banks in a central banking system, their reserves in excess of legal minimum requirements are typically only a few percent of their liabilities. Another way to say this is that in a currency board system, the monetary base (M0) has 100 percent foreign reserves, but broader measures of the money supply such as M1 (currency in circulation plus demand deposits) or M2 (currency in circulation plus demand deposits plus time deposits) do not have 100 percent reserves.

Where are currency boards appropriate?

Currency boards are worth considering in any country where the national currency has not performed as well in the long term as the major internationally traded currencies. The long term means 10 years or more; many currencies have promising performance for a few years, but are unable to sustain it. The major international currencies are currently the U.S. dollar, the German mark (soon to be replace by the euro), and the Japanese yen.

Among central banks, only about 50 percent in developed countries and 5 percent in developing countries issue currencies that have performed approximately as well in the long term as the major international currencies. In most countries, therefore, establishing currency boards would significantly improve the quality of the national currency. (Again, for evidence, see my study "Should Developing Countries Have Central Banks?," listed in the Further Reading file of this site.)

Some people have claimed that currency boards are only appropriate for small economies highly open to foreign trade. Historically, though, currency boards have worked well both in relatively large, closed economies and in small, open ones. And no matter how large and closed a country is, there is no advantage to having an unsound currency issued by a central bank rather than a sound currency issued by a currency board.

Official dollarization (using a foreign currency as predominant or exclusive legal tender) and an

orthodox currency board are quite similar. The main advantage of dollarization over a currency board is that dollarization is likely to have somewhat greater credibility because it is harder (though not impossible) to reverse . The main advantage of a currency board over dollarization is that a currency board retains seigniorage domestically whereas dollarization does not under the current policies of the countries issuing the major international currencies, the most likely choices for countries interested in dollarizing.

History of orthodox currency boards

Currency boards have existed in about seventy countries. The idea of currency boards originated in Britain in the early 1800s among a group of economists known as the Currency School. They had great political influence, and the Bank Act of 1844 was intended to convert the Bank of England into a currency board. Unlike modern advocates of currency boards, though, the Currency School did not realize that both deposits and notes that comprise the monetary base must be backed 100 percent with foreign assets in a currency board system. The Bank Act had no reserve requirement for deposits, and as a result, instead of converting the Bank of England into a currency board, the act converted it into a central bank. Because Britain was the most economically advanced country of the time, its example was influential, and many other countries imitated British legislation.

The first successful attempt to establish a currency board occurred in the British Indian Ocean colony of Mauritius in 1849. After some experimentation, the currency board system achieved its mature orthodox form with the West African Currency Board, established in 1912 for the British colonies of Nigeria, the Gold Coast (Ghana), Sierra Leone, and the Gambia. The West African Currency Board was a model for many later currency boards. By the 1930s, currency boards were widespread in British colonies in Africa, Asia, the Caribbean, and the Pacific islands.

Currency boards have also existed in a number of independent countries as diverse as Argentina in the early 1900s, the free city of Danzig (today Gdansk, Poland) in the 1920s, and Yemen. The recent currency board-like systems, discussed below, have all been in independent countries.

The currency board system reached its greatest extent in the late 1940s, when about 50 countries had currency boards. Currency board systems performed well, with low inflation, full convertibility into their anchor currencies, and good economic growth. Even so, most fell victim to intellectual fashions of the 1950s and 1960s that favored central banking. Another reason that currency boards disappeared was that most currency boards existed in British colonies, and when the colonies achieved independence they indiscriminately replaced many existing institutions.

The most prominent currency board today is that of **Hong Kong**. The Hong Kong dollar is linked to the U.S. dollar at HK$7.80 = US$1. The Chinese government has promised to retain Hong Kong's existing economic system for 50 years after Hong Kong reverts from Britain to China on 1 July 1997, but the Chinese government is not entirely trustworthy. The Hong Kong system is not completely orthodox; since 1988, the government of Hong Kong has gradually increased the power of the Hong Kong Monetary Authority (HKMA) to act like a central bank in some respects. In August 1998 the HKMA bought massive amounts of Hong Kong shares on the stock market--unorthodox for a central bank, let alone a currency board. A weakness of the Hong Kong system is that it rests more on custom than on law. The law does not require the HKMA to maintain a fixed exchange rate nor does it specify the precise composition of reserves. In principle, the law is compatible with a floating exchange rate, such as Singapore has.

More or less orthodox currency boards also remain today in the British territories of **Bermuda**, the **Cayman Islands**, the**Falkland Islands**, and **Gibraltar**, as well as in the **Faroe Islands**, which are part of Denmark. Bermuda has capital controls for residents, who are not allowed to invest more than US$25,000 a year abroad without permission. Since the Bermuda Monetary Authority has U.S. dollar reserves of 115 percent of the monetary base, I cannot understand why the controls exist. As far as I know, no other currency board has ever imposed such controls on transactions with its anchor currency.

Recent currency board-like systems

Since 1991, a few countries have established currency board-like systems. **Argentina** did so on 1 April 1991, establishing an exchange rate of 10,000 australes (now 1 peso) = US$1. **Estonia** followed on 20 June 1992, establishing an exchange rate of 8 kroons = 1 German mark (DM). **Lithuania**, influenced by Estonia's success, did likewise on 1 April 1994, establishing an exchange rate of 4 litas (the Lithuanian plural is litai) = US$1. In 1997 the Lithuanian government and the Bank of Lithuania began steps to replace the currency board-like system with the same central banking arrangement that resulted in triple-digit inflation in 1992 and 1993. The government offered no coherent justification for re-establishing central banking. By September 1998 the worldwide crisis of currencies in emerging markets made the government delay its plan until 2000, although the Bank of Lithuania wants to start implementing the plan in 1999.

To reverse a high rate of inflation and a shrinking economy, **Bulgaria** established a currency board-like system on 1 July 1997, based on an exchange rate of 1,000 leva = DM1. Since then, the Bulgarian economy has quickly recovered (see the statistics below). As stipulated in the Dayton Peace Accord, **Bosnia** established a currency board-like system linked to the German mark on 1 August 1997. Statistics of the performance of the Bosnian economy remain sketchy as a result of the damage caused by the civil war.

These systems are not orthodox currency boards, but currency board-like systems--central banks that retain many of their old powers, but are constrained by currency board rules regarding the exchange rate and reserves. The potential problem with currency board-like systems is that they have loopholes that allow the central banks considerable discretionary power, defeating the purpose of having a currency board. In Argentina, for example, the minimum foreign reserve ratio is not 100 percent, as for an orthodox currency board, but 66b percent. Though the actual foreign reserve ratio hovers around 90 percent, the legal freedom the central bank has to reduce foreign reserves has at times created speculative attacks on the currency. People have been afraid that reducing foreign reserves towards the legal minimum would be the first step in a chain of events that would return Argentina to central banking, which has performed miserably there.

In practice, the Argentine and Estonian currency board-like systems have become somewhat more orthodox over time, while the Lithuanian system has maintained a more or less constant level of orthodoxy during its existence. However, loopholes in existing laws provide room to make the systems less orthodox, even without changing the law. Currency board-like systems try to combine the perceived advantages of currency boards and central banks, but they risk having the defects of both and the advantages of neither. Historical experience suggests they would do better to become orthodox currency boards.

Brunei has an older currency board-like system that uses the Singapore dollar as the anchor currency. The monetary authority is required to hold foreign reserves of at least 70 percent. **Djibouti** also has a currency board-like system in which notes and coins have 100 percent backing in foreign reserves, but deposits that are part of the monetary base may not have the same requirement. Details about Djibouti?s system are hard to find.

Currency boards and currency board-like systems as of September 2001				
Country	**Population**	**GDP (US$)**	**Began**	**Exchange rate / remarks**
Argentina	37 million	$367 billion	1991	1 peso = US$1* / Currency board-like
Bermuda [UK]	63,000	$2 billion	1915	Bermuda $1 = US$1 / Loose capital controls
Brunei	336,000	$5.6 billion	1952	Brunei $1 = Singapore $1 /Currency board-like
Bosnia	3.8 million	$6.2 billion	1997	1 convertible mark = DM1 = 0.5112918 euro / Currency board-like
Bulgaria	7.8 million	$35 billion	1997	1 lev = DM1 = 0.5112928 euro / Currency board-like
Cayman Islands [UK]	35,000	$930 million	1972	Cayman $1 = US$1.20
Djibouti	450,000	$550 million	1949	177.72 Djibouti francs = US$1 / Currency board-like
Estonia	1.4 million	$7.9 billion	1992	8 kroons = DM1 = 0.5112918 euro/ Currency board-like
Falkland Islands [UK]	2,800	unavailable	1899	Falklands £1 = UK£1
Faroe Islands [Denmark]	45,000	$700 million	1940	1 Faroese krone = 1 Danish krone
Gibraltar [UK]	29,000	$500 million	1927	Gibraltar £1 = UK£1
Hong Kong [China]	7.1 million	$158 billion	1983	Hong Kong $7.80 = US$1 / More orthodox since 1998
Lithuania	3.6 million	$17 billion	1994	4 litai = US$1** / Currency board-like
Notes: *If the euro appreciates to at least US$1, Argentina will switch from the dollar as the exclusive anchor currency to a basket under which 1 peso = US$0.50 + 0.50 euro. **Lithuania intends to switch its anchor currency to the euro on February 2, 2002, using the prevailing cross-rate between the dollar and the euro. GDP is expressed in terms of purchasing power parity, not exchange rates. Source of population and GDP data: CIA World Factbook 2000.				

Monetary systems sometimes mistaken for currency boards

The currency board and currency board-like systems listed here are the only ones that currently exist. Some economists have mistakenly characterized the monetary systems of other countries, including Singapore, Latvia, and the CFA franc zone (in Africa), as currency boards. A central bank can try to act like a currency board, but experience indicates that without a formal commitment embodied in law, the central bank will quickly revert to an active, managed monetary policy that is the opposite of a currency board.

Singapore had a currency board until 1973, but since then the Monetary Authority of Singapore has maintained a floating exchange rate. Though the Monetary Authority of Singapore holds net foreign reserves equal to about 100 percent of the monetary base, it is an unusual central bank rather than a currency board. **Latvia** and the CFA franc zone have never had currency boards. The Bank of Latvia currently holds net foreign reserves close to 100 percent and pegs its currency to the Special Drawing Right (SDR, a basket of major international currencies), but it has made no formal commitment to those policies, and could discontinue them without changing the essence of its central banking system. The **CFA franc** has a pegged exchange rate with the French franc, last devalued in 1993. The central banks that issue the CFA franc are required to hold French franc reserves equal to at least 20 percent of their liabilities payable on demand (more or less the monetary base), not 100 percent like currency boards; in practice their reserves have often been close to 20 percent.

In a 1998 paper on currency boards, the International Monetary Fund (IMF) classified the **Eastern Caribbean Central Bank** as a currency board arrangement. Other material from the IMF has not made the same classification, however. The Eastern Caribbean Central Bank is required to hold foreign reserves equal to at least 60 percent of the monetary base, and in practice it holds reserves exceeding 90 percent. In my opinion, though, it is just over the line qualifying it as not being a currency board-like system because in principle it has considerable discretion to lend to commercial banks and member governments.

Indonesia considered establishing a currency board in early 1998 but decided against it under strong pressure from the IMF. The IMF never publicly explained its opposition at any length. Curiously, at the same time, the IMF was reportedly proposing that **Cambodia** establish a currency board.

Results of recent currency board-like systems

See Steve H. Hanke’s article "The Disregard for Currency Board Realities," which collects key statistics of the performance of the recent currency board-like systems. You need a PDF reader to view it.

For in-depth reading

On the theory and practice of the currency board system, see ?Currency Boards for Developing Countries: A Handbook? by Steve H. Hanke and me (elsewhere on this site) or, for even more details, ?Russian Currency and Finance: A Currency Board Approach to Reform? by Hanke, Lars Jonung, and me (for sale from me at just US$20 a copy, postage included). If you are interested in the history of currency boards up to about 1990, see my essay ?Currency Boards? (elsewhere on this site); the essay was written in 1992 and I have not updated it, so it does not cover the last decade. You can find all these

writings by going back to the home page.

Economist.com FINANCE & ECONOMICS

The ABC of a currency board

Oct 30th 1997
From The Economist print edition

Currency boards can help countries parry attacks on their currencies. But is Hong Kong running its board the right way?

A WAVE of currency depreciation has swept through East Asia, from Thailand to Taiwan. Only the Hong Kong dollar has clung on to its peg to the American greenback. Hong Kong is also the only economy in the region to operate a currency board. In the past week, speculators have attacked the Hong Kong dollar and the stockmarket has swung wildly. Will the currency board prove more durable than other Asian exchange-rate pegs?

That question matters elsewhere. Although the trend in emerging economies is towards more flexible exchange-rate mechanisms, several countries—including Argentina, Bulgaria, Estonia and Lithuania—have introduced currency boards in recent years. But as a recent IMF paper* points out, currency boards have costly drawbacks as well as benefits.

A country that introduces a currency board commits itself to converting its domestic currency on demand at a fixed exchange rate. The Argentine peso, for instance, has been convertible into one American dollar since the currency board was introduced in 1991. The Hong Kong dollar has been officially fixed at HK$7.80 per American dollar since the board was introduced in 1983. To make this commitment credible, the currency board holds reserves of foreign currency (or gold or some other liquid asset) equal at the fixed rate of exchange to at least 100% of the domestic currency issued.

Unlike a conventional central bank, which can print money at will, a currency board issues domestic notes and coins only when there are foreign-exchange reserves to back it. Under a strict currency-board regime, interest rates adjust automatically. If investors want to switch out of domestic currency into, say, dollars (as they have been doing in Hong Kong), then the supply of domestic currency will automatically shrink. This will cause interest rates to rise, until eventually it becomes attractive for investors to hold local currency again.

The predictability and rule-based nature of a currency board are two of its biggest advantages. Like any fixed exchange-rate system, a currency board offers the prospect of a stable exchange rate, which can promote both trade and investment. Its strict discipline also brings benefits that ordinary exchange-rate pegs lack. Profligate governments, for instance, cannot use the central bank's printing presses to fund large deficits.

But discipline has its drawbacks. Like other fixed exchange-rate systems, currency boards prevent governments from setting their own interest rates. Hong Kong's interest rates are in effect set by America's Federal Reserve. Because its inflation rate has been higher than in America, this has resulted in low—and sometimes negative—real interest rates in the 1990s. In turn, this cheap money fuelled a bubble in property and share prices.

If local inflation remains higher than that of the country to which the currency is pegged, the currencies of countries with currency boards can also become overvalued and uncompetitive. Governments cannot use the exchange rate to help the economy adjust to outside shocks, such as fall in export prices or sharp shifts in capital flows. Instead, domestic wages and prices must adjust. In countries where these prices are sticky, such as Argentina, the risk of currencies becoming

overvalued is high.

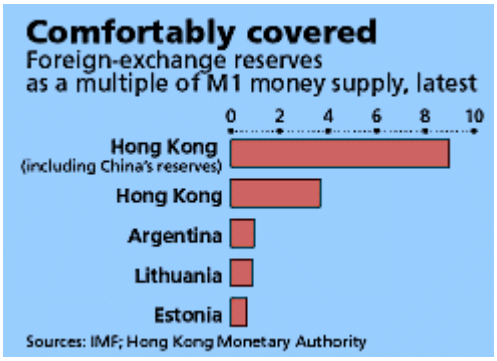
A currency board can also put pressure on banks and other financial institutions if interest rates rise sharply as investors dump local currency. For emerging markets with fragile banking systems, such as Bulgaria, this can be a dangerous drawback. Also, a classic currency board, unlike a central bank, cannot act as a lender of last resort. A conventional central bank can stem a potential banking panic by lending money freely to banks that are feeling the pinch. A classic currency board cannot. But most currency boards have more freedom than the classic description implies. Hong Kong's, in particular, is in a strong position.

After big depreciations in other Asian countries, it is the fear that the Hong Kong dollar is now overvalued that triggered much of the current panic. That fear is probably overdone. Hong Kong has very flexible wages and prices. And two other factors also suggest Hong Kong's currency board will weather the storm.

Your flexible friend

First, it has a massive armoury of reserves. At $85 billion, Hong Kong has enough reserves to cover the entire M1 narrow measure of the money supply (currency in circulation plus demand deposits) almost four times over. If China's reserves are added (its government has promised to support the Hong Kong dollar), narrow money is covered ninefold (see chart). Such huge reserves make Hong Kong the soundest currency board in the world and should bolster investors' confidence about the country's ability to maintain its exchange-rate peg.

Second, Hong Kong's banks are well regulated and well capitalised. This puts them in a strong position to cope with the high interest rates that might be needed to defend the currency board.



With such strong economic and financial fundamentals it is hard to see why Hong Kong's currency board is under such attack. One reason may be that the board has begun to look a bit too much like a central bank. Hong Kong, and some other countries with currency boards, such as Argentina, intervene in money markets to smooth swings in interest rates the same way central banks do. Hong Kong's Monetary Authority can inject or withdraw money from the interbank lending market to push up or lower interest rates. On October 23rd, for instance, it drove up overnight interest rates to 300% to punish speculators. The following day it injected money into the system to push rates down.

This kind of intervention undermines the advantages of a currency board. Instead of regarding the system as automatic, speculators are left to wonder about the government's motives. Does money-market intervention, for instance, imply that the government is worried about high interest rates? If so, will Hong Kong cling to its currency peg, no matter the cost to its economy that higher interest rates might bring? These kinds of uncertainties are the cause of speculative attacks. Truly credible currency boards can avoid them.

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* "Currency Board Arrangements: Issues and Experiences." IMF Occasional Paper 151. August 1997.

Economist.com OPINION

Economics focus

Dollar mad?

Oct 25th 2001
From The Economist print edition

Argentina's troubles have increased doubts about currency boards

THE deepening crisis in Argentina is more than just the latest emerging-market meltdown. The country's troubles come with a twist. A decade ago Argentina fixed its currency, the peso, against the dollar in an unusually binding way. This arrangement worked fairly well, promoting stability and growth for much of the 1990s. Now it is being blamed for Argentina's plight.

A currency board fixes Argentina's exchange rate. The central bank maintains foreign reserves to back the (narrowly defined) money supply in full, implicitly promising to convert all local currency into dollars if need be. This makes the peg as credible as it can be, short of outright dollarisation. In principle, it should immunise the economy against the sorts of speculative attacks that plagued South-East Asian countries in 1997-98.

In the 1990s, currency boards were widely regarded as a good solution for economies troubled by high inflation and financial instability. Steven Hanke of Johns Hopkins University, for one, travelled the world urging poor countries to adopt the method. A few successes—Hong Kong (pegged since 1983), Bulgaria and Estonia—supported currency boards' reputed stabilising powers. Argentina had suffered a decade of rising inflation, and two bouts of hyperinflation, when the economy minister, Domingo Cavallo, introduced a currency board in 1991. At first the results were impressive, but now the economy is in a hole. Where does this leave the currency-board debate?

Rudiger Dornbusch of MIT, not shy of contrarian positions, has published a new defence of currency boards. He argues that, Argentina notwithstanding, boards have virtues that can outweigh their drawbacks*.

As Mr Dornbusch concedes, currency boards involve costs, from the political to the practical. First, countries must swallow their pride and abandon their “monetary sovereignty”: henceforth, interest rates are set not locally but, in effect, in Washington, DC, or Frankfurt. Second, currency boards require the government to give up seignorage—the implicit profits from printing money. Third, the fixed exchange rate can get badly out of line with those of trading partners. A strong dollar has hurt Argentina, while its neighbours have devalued to boost their economies.

Yet the benefits are great, too. One is lower inflation. Another, which Mr Dornbusch emphasises, is that currency boards help to curb wasteful government spending. The inability to rely on printing money to finance deficits focuses minds wonderfully. In the five years after the introduction of the currency board, Argentina pruned spending and subsidies dramatically. This did not happen at the expense of economic growth: the economy grew on average by 6% a year during 1991-96.

According to Mr Dornbusch, the causes of Argentina's current troubles are deeper than its overvalued peso. They include the legacy of high debt and earlier deficits, trade unions that have consistently thwarted reform, and obsolete industries producing goods so shoddy that they would be uncompetitive at almost any exchange rate.

In fact, it is wrong to separate all these issues from the currency-board debate. Argentina's notoriously intransigent unions were always likely to make it harder to get good results from a fixed currency. And although the currency board stopped the government from printing money, it excessive borrowing from abroad—a big part of the crisis now. Still, Mr Dornbusch's main point, that it is wrong to blame the currency board for all of Argentina's ills, is surely right.

Getting real

Today, currency-board sceptics point to Brazil. Like Argentina, it struggled with years of high inflation before taking its own reform path. It chose to manage exchange rates after introducing a new currency, the *real*, in 1994. Arminio Fraga, in charge of Brazil's central bank (and a former student of Mr Dornbusch), managed to convince the markets that this was the better approach—notably in January 1999, when a speculative attack forced a devaluation in the *real*. Then, Brazil saw only a blip of inflation and a relatively brief pause in growth.

Does the comparison between Brazil and Argentina settle the matter? Not really. Brazil has been fortunate to have a skilled and convincing central banker, and a government dedicated, for a time, to fiscal prudence. (Lately, this commitment has waned, and inflation is rising.) All Brazil and Argentina really prove is that no currency regime is a cure-all, and that there is no substitute for sound fiscal policy.

If Argentina breaks its dollar peg, as now seems likely, it will be wrong to declare currency boards a menace under all circumstances. For many countries—especially if they are small, open to trade and lacking a central bank with inflation-fighting credibility—they may be the best insurance against hyperinflation. For larger countries, such as Argentina, the choice of foreign-exchange regime is bound to be more difficult. Thanks to the currency board, Argentina cut inflation and held it down. And Argentina has suffered plain bad luck in the recent, possibly anomalous strength of the dollar.

If, a decade ago, Argentina had known what it knows now, would it have chosen a currency board? Probably not. But even as default looms, it would be wrong to conclude that Argentina's policy has been an unmitigated disaster, or that, regardless of circumstances, a currency board is always the wrong solution.

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*"Exchange Rates and the Choice of Monetary-Policy Regimes", by Rudiger Dornbusch. *American Economic Review*, Volume 91, Number 2. (Mr Dornbusch's paper is posted with a different title at the above link.)

Websites
"Exchange Rates and the Choice of Monetary-Policy regimes", by Rudi Dornbusch is published in the *American Economic Review*. Other papers from Professor Dornbusch are available on his homepage. See also Professor Steven Hanke's homepage.

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Argentina's collapse

A decline without parallel

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From The Economist print edition

EPA

In the 1990s, Argentina was Latin America's star. How did it become a basket case?

EACH Sunday afternoon for the past few weeks, several thousand people have gathered in a public park in a solidly middle-class district of comfortable apartment blocks and quiet cafés in Buenos Aires. Though it is summer, and some of the crowd are dressed in shorts and T-shirts, their anger is palpable. They listen as speakers from the newly-formed neighbourhood committees report on plans for protests outside banks and against the government. They roar their disapproval of politicians. “Kick them all out, not a single one should stay,” they chant.

This spontaneous movement helped to bring down two presidents in December. The vacuum was filled when Congress last month chose Eduardo Duhalde of the Peronists, the largest political party, as the interim president. Yet Mr Duhalde's government may not last until the next scheduled presidential election, in September 2003. Such is the awe-inspiring severity of the economic, financial, political and social collapse that has befallen Latin America's hitherto richest country and its third-largest economy.

The past few weeks have seen Argentina default on its $155 billion public debt, the largest such default by any country in history. After a decade in which the peso was fixed by law at parity with the dollar, Mr Duhalde had little choice but to devalue and then float the currency. Already, the peso is trading at under two to the dollar; it may well weaken further. Because most savings, loans and contracts were in dollars, the devaluation has added to the financial chaos. Since December 1st, savings accounts have been frozen. Dollar savings have been turned into devalued pesos. Depositors also face restrictions on how much they can withdraw from current accounts. In January, the banks were closed for all but half a dozen days.

The economy has ground almost to a halt, as the chain of payments between consumers, businesses and suppliers has broken down. Cash is at a premium. All foreign-exchange transactions require the approval of the Central Bank, which has been slow to authorise them. So imports have all but dried up. In some ways, that is merely inconvenient: Chilean salmon, for example, is no longer on the menu at even the best restaurants in Buenos Aires. In others, it may be tragic: hospitals have run short of imported medicines.

Even if Mr Duhalde succeeds in putting together a coherent recovery programme, the cost of the collapse is huge. The government reckons that GDP will contract by 4.9% this year; independent economists think it could shrink by up to twice as much. That comes on top of a recession that has now lasted for nearly four years. At the current exchange rate, income per person in dollar terms has shrunk from around $7,000 to just $3,500, or less than Brazil's. Unemployment has risen to perhaps 25%; in the cities, 44% of the population are now officially poor, with an income of less than 120 pesos per month. And there is a deeper cost. By seizing its citizens' savings, the government has broken a basic contract, and violated the rule of law. Trust between government and citizens—the essential glue of a prosperous democracy—has been destroyed.

For now, politicians and (mainly foreign-owned) banks are the scapegoats. Several politicians have been beaten up and abused on the street. Dozens of bank branches have been attacked; many now operate with their windows covered by wooden or steel plates. “We're somewhat less popular than serial killers,” says Michael Smith, who manages HSBC's Argentine subsidiary. A further sign of the political damage is that it is unclear whether Argentines will continue to vote for the Peronists and Radicals, the two parties that have dominated democratic politics for the past half century. Even before the economy collapsed, a record 40% of voters in a congressional election last October cast blank or spoiled votes.

Argentina's fate is all the more surprising because, until recently, it was widely held up as a model of successful free-market reform. What went wrong? And who is to blame? The answers are vital not just to Argentina's recovery, but to a wider debate about future policy in Latin America and other parts of the developing world.

From winner to leper

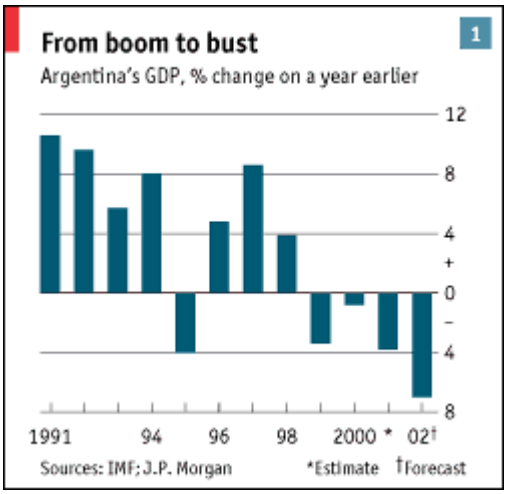
Even before the latest disaster, Argentina's story is that of a decline unparalleled in modern times. Blessed with some of the world's most fertile land on the endless *pampas*, Argentina in the 19th century attracted a flood of British capital and European immigrants. By 1913, having grown at an annual average rate of 5% for the previous three decades, it was one of the world's ten richest countries, ahead of France and Germany.

It has been downhill ever since. Exporting beef and grain to Britain ceased to be a passport to prosperity. But Argentina's leaders, starting with Juan Domingo Peron, a populist army colonel who ruled from 1946 to 1955, aggravated their country's problems by retreating into protectionism and financing generous benefits to workers by printing money. Four decades of political and economic instability culminated in the restoration of democracy in 1983. But the economy still languished: between 1976 and 1989, income per person shrank by more than 1% per year. Two bouts of hyperinflation, and two banking collapses, destroyed confidence in both the peso and economic policy. Argentines preferred to use dollars, and the wealthy shipped their capital abroad.

In 1991, Carlos Menem, a pragmatic Peronist, and Domingo Cavallo, his economy minister, set out to reverse this decline through free-market reforms such as open trade. Their cornerstone was a currency board, under which the peso was fixed by law at par to the dollar, and the money supply restricted to the level of hard-currency reserves. Mr Cavallo called this “convertibility”, deliberately harking back to Argentina's golden age: for much of the period before 1935, the country had operated a currency board, in which a body known as the *Caja de Conversion* was charged with maintaining the peso's value in gold.*

Mr Cavallo's scheme seemed to work. After a lag, inflation was killed. With all risk of devaluation apparently removed, capital poured in from abroad. Mr Menem privatised almost everything the state owned, except for a couple of banks. Between 1991 and 1997, Argentina's economy grew at an annual average rate of 6.1%, the highest in the region (see chart 1). Productivity increased as investment modernised farms, factories and ports.

But the currency board was a demanding regime. Having renounced both exchange-rate policy and monetary policy (interest rates were, in effect, those set by the United States' Federal Reserve, plus whatever risk-margin lenders assigned to Argentina), the government was left with few tools to respond to outside events. The first foretaste of difficulties came in 1995, after Mexico had been forced to devalue its peso. Nervous investors yanked their money from Argentina: the economy shrank by 4%, and a dozen banks collapsed. But the government responded effectively: it tightened bank regulation and capital requirements, and encouraged foreign banks to take over weaker local ones. By the next year, the economy was growing strongly again.



This kind of forced adjustment, argued proponents of the board, was the beauty of the scheme: it would compel politicians to stay honest. In fact, not only did it fail to do that, but it placed the political system under intense strain.

Internal rigidity, external shocks

So how did it all end so badly? For some economists, the answer starts with the currency board itself. Pedro Lacoste, an Argentine economic consultant, argues that the assumption behind the scheme was that “globalisation was unstoppable”. But then came four external shocks. Prices for Argentina's commodities stopped rising; the cost of capital for emerging economies began to go up; the dollar appreciated against other currencies; and Brazil, Argentina's main trading partner, devalued. The rigidity of the currency board made it difficult to respond to these shocks. In mid-1998, Argentine officials confidently told visitors that the economy would grow at 6% per year indefinitely—just as it was slipping into a grinding recession from which it has yet to emerge. Three years later, with no growth and no prospect of growth, investors finally realised that Argentina's debt might be unpayable.

Argentina found it hard to shake off recession because it was not competitive enough. Exports grew (from $12 billion in 1991 to $27 billion last year), and would have grown more without rich-country farm subsidies and protectionism. But many industries could not compete abroad, especially after Brazil's devaluation. Only some of these were inefficient and deserved to go under.

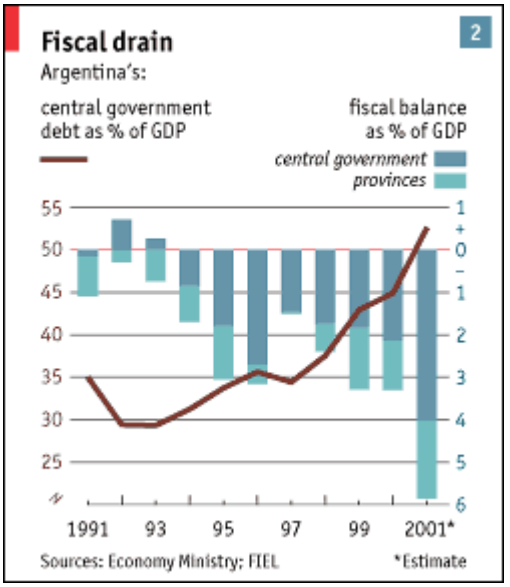
Unable to devalue, Argentina could only become more competitive if prices fell. Deeper reforms might have cut costs. As it was, deflation came from recession, falling wages and rising unemployment. But Argentina remained an expensive place to do business. Mr Menem's privatisations had involved sweetheart deals. Telecoms, electricity, water and some transport services became private rather than public monopolies; their tariffs, on long-term contracts, went up in line with American inflation, even though prices in Argentina were falling. And interest rates remained high. Banks lent dollars at 25%, even though the risk was, in theory, low.

Too much spending, too little taxing

A second school of thought holds that the problem was not the currency board itself, but its undermining by loose fiscal policy. Having won a second term, Mr Menem dispensed with Mr Cavallo in 1996. But investors were happy to go on lending to the government. Instead of printing money, as in the bad old days, it printed bonds to finance its fiscal deficit. But far from pressing forward with reforms, especially of labour laws, social provision, infrastructure and trade, Mr Menem concentrated on trying to buy political support for an unconstitutional third

term. Argentina's public debt rose steadily (see chart 2).

The share of public spending in GDP increased from 27% in 1995 to 30% in 2000. Apart from rising debt payments, two things accounted for most of the increase. First, economic growth had not prevented a rise in unemployment, to 12% in 1994. Some provinces in the poorer interior of the country were especially hard hit. They had depended on state enterprises, such as the oil company or the railways, which shed labour when privatised, or on inefficient industries, such as sugar, which could not compete when trade was opened. To quell social unrest, provincial governors padded their payrolls. Second, the government had embarked on an ambitious pension reform from a state pay-as-you-go system to individual private accounts. For the government, the transition costs of this reform reached 3% of GDP in 2000, as it still had to pay pensioners but no longer received contributions.



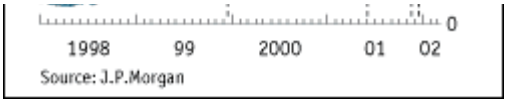
Even so, Mr Menem failed to tackle Argentina's fiscal weaknesses. Much spending was inefficient, and involved corruption. The country's tax system is inefficient, and tax evasion is high. Whereas Brazil collects more than 30% of GDP in taxes, Argentina collects just 21% of GDP. And under a system dating from 1853, while the central government collects the taxes, the provinces were (until last year) guaranteed an automatic share of the revenues. That gave them no incentive to spend more efficiently. Mr Menem's failure to balance the books while times were good dealt a difficult hand to his successor, Fernando de la Rua, who was faced with cutting government spending in the midst of a recession. Even so, his government was disastrously ineffective.

The fourth factor in Argentina's downfall was political mismanagement. Mr de la Rua's Alliance government was weak and indecisive. The president lacked a majority in Congress, and was further weakened when his vice-president resigned. In March 2001, Mr de la Rua switched Ricardo Lopez Murphy, his defence minister and a respected orthodox economist, to the economy ministry, with a brief to balance the budget. When Mr Lopez promptly announced sweeping cuts in public spending, Mr de la Rua failed to back him. With Mr Lopez went the last serious chance of saving the currency board.

But the man who turned failure into disaster was, ironically, the man responsible for the Argentine "miracle" of the 1990s: Mr Cavallo, drafted in by Mr de la Rua to replace Mr Lopez. Mr Cavallo first tried "heterodox" measures to try to get growth. He fiddled with tariffs and, fatally, with the currency board itself, so that the peso was pegged for exporters half to the dollar, half to the euro. This was, in itself, a good idea, but the timing was disastrous. By raising the idea of devaluation, it spooked foreign investors. They demanded a higher risk premium for holding Argentine bonds, driving up interest rates and deepening the recession (see chart 3).

But Mr Cavallo's reckless stubbornness did not end there. One of the main achievements of the Menem government had been to mould a strong banking system and an independent central bank. Mr Cavallo proceeded to destroy them both. Not only did he oust Pedro Pou, the Central Bank's governor, and ease banks' reserve requirements, but he raided the financial system to pay for the government. When foreigners jibbed at Argentine bonds, rather than declare a debt default and/or devalue, Mr Cavallo sought money elsewhere. He strong-armed local pension funds into buying government paper and local banks into swapping their holdings of government bonds in return for low-interest

loans. And he browbeat the IMF into lending Argentina $8 billion, on top of the $14 billion provided in January 2001.



These actions triggered a bank run. Between July and November, Argentines withdrew some $15 billion from the banks. Three local banks (Banco de Galicia, and two state banks, Nacion and Provincia de Buenos Aires) were particularly affected. To save them, Mr Cavallo made his last, desperate, throw. On December 1st, he imposed a ceiling of $1,000 a month on bank withdrawals. That was a deadly blow to the informal service economy, which functions on cash. Three weeks later, a coalition of pot-banging savers, and looters from the underclass (not impeded, and perhaps unleashed, by the Peronist machine from the Buenos Aires rustbelt), took to the streets. First Mr Cavallo and then Mr de la Rua resigned.

Charles Calomiris, an economist at New York's Columbia University, points out that Argentina's collapse is different from previous emerging-market financial crises. “In other crises, the weakness of the banking system created the expectation of future fiscal problems, because of fears the government would have to bail out failed banks. This was the opposite: fiscal weakness led to banking weakness, as the government ended up using the reserves of the whole banking system.”

Blame everybody

Some politicians, including some supporters of Mr Duhalde, blame the IMF for imposing “neo-liberal” policies of openness and privatisation on Argentina, which they say have failed. But the currency board was Mr Cavallo's invention; the IMF was suspicious of it. And “neo-liberal” policies have not caused this chaos elsewhere. A weightier criticism is that the IMF was too tolerant for too long of Argentina's combination of fixed exchange rates and fiscal laxity. But so were the Wall Street investment banks. And “convertibility” remained popular in Argentina to the end. Some Argentines argue that it was wrong of the IMF to suspend its loan programme in December. Argentina is “the guinea pig for the new religion” of floating exchange rates and obliging the private-sector to bear more of the costs of bail-outs, argues Juan Jose Llach, a former minister.

The weight given to each of these factors is a matter of heated debate, in Argentina and elsewhere. It is fair to say that they all interacted. The strength of the currency board and the banking system allowed Argentina to stay upright longer than seemed possible, but also meant that the collapse has been disproportionately greater.

Reuters

Can the country recover? Some economists argue that now, more than ever, Argentines will trust no currency except the dollar. Once controls on bank deposits are lifted, they expect the peso to crash and Argentines to adopt the dollar de facto. That could spell the end of Mr Duhalde's government. Other economists disagree. Javier Gonzalez Fraga, a former Central Bank president who was critical of the currency board, says that after the reforms, investment and deflation of the 1990s, Argentine companies are “slim and strong”. If and when the exchange rate is stable, he expects Argentines to repatriate some of the $100 billion or so that they hold abroad, and exports and investment to take off.

Restoring public trust in government will take far longer. It means curing Argentina's long-standing fiscal weakness, as well as repairing the banks. Above all, it means a greater sense of realism, among politicians and people. “Argentina continues to act as if it were the country of 1913,” says Rosendo Fraga, a political analyst. “We should look at Chile or Uruguay, and

become a simpler, more austere country. We can't be Mexico or Brazil. That's the hardest thing for Argentina to accept."

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* See "Straining at the Anchor: the Argentine Currency Board and the Search for Macroeconomic Stability, 1880-1935", by Gerardo della Paolera and Alan M. Taylor, University of Chicago Press, 2001. (Amazon.co.uk)