

Legal and Policy Choices in Official Dollarization

Introduction:

Long a topic of heated debate among economists, exchange rate policy has enjoyed particular popularity since the 1997 Asian crisis when one fixed rate regime after another collapsed under balance of payments problems and the resulting contagion. The financial crises that struck Mexico in 1994-95, Russia in 1998 and Brazil in 1999 also preyed on countries with pegged exchange rates, but emerging economies with floating rates, often prone to high inflation and instability, have overall fared little better, (Subcommittee—issues regarding doll.) The disappointing performance of both types of currency regime in comparison to the admirable performance of the Argentine currency board, has heightened interest in the currency board's close relative: dollarization, in which a country adopts — in whole or in part — the U.S. dollar or another hard currency as its official currency. This is especially true in Latin American countries with histories of economic instability, for whom dollarization promises increased price stability and increased integration with world financial markets. Within the last year, both Ecuador and El Salvador have begun the process of dollarization, and Argentina seems nearly ready to follow. Mexico has studied the possibility with more trepidation, but East Timor, which until recently was part of Indonesia and used the Indonesian rupiah, has already made the leap, adopting the U.S. dollar as its official currency on January 24, 2000 (UNTAET 2000).

U.S. interest in dollarization is also on the rise, as economists and politicians become increasingly aware of its benefits and low costs. In 2000, Senator Connie Mack introduced a bill called the International Monetary Stabilization Act (IMSA) that would have encouraged adoption of the greenback by promising to share a portion of its seigniorage, the monetary benefit accruing to the U.S. as a result of official dollarization. While the bill failed to reach the

floor for debate, it marked the first step toward active American encouragement of dollarization. Increasing trade and integration in the Americas ensure that the benefits of a common currency will only increase with time, making the possibility that U.S. support for dollarization may resurface with added support.

Intense interest in dollarization led to a great deal of research on the economic advisability of the move. A few commentators have highlighted the legal changes and choices that a dollarizing country would face, and some make recommendations for seigniorage sharing agreements like the IMSA. The purpose of this paper is to discuss further some of the issues faced by a dollarizing country, along with options for their resolution. While some of these issues are domestic, I focus particularly on bilateral issues that would arise in the case of U.S. sponsored dollarization, and on the domestic policy choices that would affect the form of a bilateral arrangement or the dollarizing country's rights under that arrangement. Finally, I analyze specific proposals for bilateral dollarization, including the IMSA, in an attempt to discern which combination of features best satisfies the interests of the U.S. and of the dollarizing country. I conclude that the resistance to a treaty found in the literature is based on unnecessary assumptions regarding the terms of such a treaty. I also conclude that the lack of security in seigniorage payments offered by the IMSA is not justified by the discretion retained by the U.S., especially considering alternative proposals that would limit the ability of the U.S. to deny seigniorage payments even after the dollarizing country had born substantial cost in an effort to dollarize. In particular, I find that a proposal by Velde offers all the protection the U.S. needs and costs almost nothing to implement, administer, and monitor, while maximizing the security of the payment stream for the dollarizing country, maximizing its ability secure the reserves needed to begin dollarizing, and minimizing its incentives to de-dollarize.

Toward Dollarization

Dollarization can occur in two ways. In de facto dollarization, or “currency substitution,” the dollar or hard currency is used in private transactions as a unit of account, as a medium of exchange, and as a store of value), but is not legal tender. Another path to dollarization occurs when a foreign government makes a conscious decision to re-place its own currency with the U.S. dollar. In official dollarization, the hard currency becomes legal tender for at least one of these purposes, but not necessarily exclusively. In full dollarization, the dollar is the only legal tender and the country's own national currency ceases to exist. This is the case in Panama, Micronesia, East Timor, and others.¹ In a country with limited dollarization, this policy shift can take the form of allowing residents to hold dollar-denominated accounts. For example, in Argentina, whose currency board pegs the currency to the dollar by law, banks offer dollar accounts and dollars circulate freely alongside the peso.

Unofficial, or de facto dollarization can occur when citizens lose faith in their national currency and turn away from it toward the dollar; and has long been observed in countries where high inflation causes the local currency to lose its value quickly and depreciate regularly. Prices may be so unstable or unpredictable that using dollars is more predictable than inflation indexed contracts. Conversely, banks are unwilling to make long-term loans since the money used to repay will be worth much less than the amount lent. Because people prefer to store their wealth in a stable currency whose value can be predicted, they move their savings into dollars. At the same time, business people begin to write contracts in dollars to insure that the currency

ultimately received reflects the value of the goods or services delivered. Thus, unofficial dollarization allows people to protect themselves against inflation and makes long-term debts and contracts possible and simple to execute in the face of high inflation.

Currency substitution occurs in many countries, including perhaps all Latin American countries. A recent International Monetary Fund study (Occasional Paper 171) estimated that in 1998 dollar deposits were at least 50 percent of domestic money supplies in seven countries around the world, between 30 percent and 50 percent in 12 countries, and between 15 percent and 20 percent in several other countries. Outside of Panama, Bolivia is the most significantly dollarized economy in Latin America, with a ratio of 82 percent; Argentina is next with a 44 percent ratio. FN In 1998 the prospects for dollarization in several Latin American countries seemed eminently plausible. Argentina had established a currency board and other countries such as Mexico and Ecuador had contemplated dollarization as the solution to their monetary woes and chronic inflation.

While partial dollarization is the rule rather than the exception, full dollarization is an entirely different economic animal with serious consequences for a country. For example, a country that totally dollarizes eliminates the monetary policymaking role of its central bank and adopts the monetary policy of the United States. Banks can no longer turn to the Central bank to provide emergency liquidity, and the government loses its ability to monetize its deficits by "printing" more money. While these costs may seem unbearable to a country able to make good use of its monetary policy, they are seen as benefits to less successful. Many countries have found that their central banks, often under pressure from the government to perform in election years, have failed to control

¹ just as eurodollars circulate outside of Europe, so too can dollarization occur without use of the dollar. San Marino and Vatican City are officially "dollarized;" Italian Lira is the only legal tender (and will be replaced by the euro). Introduction to

inflation and been inept at pursuing a useful monetary policy. Unable to endow the central bank with independence or prevent successive governments from monetizing deficits, several Latin American countries have announced that they intend to dollarize or are considering full dollarization. Although most Latin economies are making significant attempts to institute credible monetary policy, and have made impressive headway in limiting inflation, these initiatives are recent, and have yet to convince their citizens that their national currencies' role as a store of value is permanent. In any of these countries, when economic conditions worsen or when the political outlook becomes more clouded, doubts may arise regarding the currency's future value. In other words, the probability of devaluation rises, and more citizens shun the national currency in favor of the historically more stable U.S. dollar.

The Economics of Dollarization

Much has been written in the last five years concerning the advisability of dollarizing from both the perspective of the United States and that of the dollarizing country. While, the focus of this paper is on legal issues occurring once a country has decided to dollarize, some of the policy issues turn on whether the benefits of unilateral dollarization are sufficient to encourage its adoption, or whether additional actions by the United States are necessary in order to sweeten the deal.” For example, the degree to which the United States shares seigniorage with dollarized countries, if at all, might depend on whether countries are willing to dollarize absent such an agreement. Similarly, the rights afforded to recipients of such payments may also depend on their willingness to dollarize. In addition, if the costs of widespread dollarization become too great for the United States monetary policy, it would be wise not to encourage to discourage dollarization by political legal means. Finally, some results of dollarization, for

dollarization. today, panama is the only country in latin america that is totally dollarized; it has been since 1904. id.

example, the loss of lender of last resort, may be amenable to legal or economic solutions. As a result, it is useful to review the costs and benefits of dollarization both for the United States and for the potentially dollarizing country.

Economically, dollarization is actually a special form of a fixed exchange rate; as a result, the arguments for dollarization are a special case of the arguments for a fixed regime as opposed to a floating rate. The economic costs and benefits depend on what regime a country currently has in place and how well it is working, and which system it is considering adopting. The considerations can be broken into three categories. One is the decision of *floating*, where supply and demand determine the currency's value relative to others, versus a *fixed* currency regime, in which the central bank fixes the value to that of another currency and stands ready to exchange foreign reserves at that rate. The next is that of a simple fixed rate, where the currency is pegged to another but can be devalued or revalued, versus a *currency board*, where the currency's value is set by law and the central bank guarantees the peg by backing domestic notes 100% with the currency to which its own is fixed. The final stage is the choice between a currency board and dollarization.²

The arguments typically offered on behalf of floating rate systems is their ability to automatically adjust to external shocks. For example, an exogenous drop in demand for a country's exports lowers demand for that country's currency, since fewer traders need it to that

² it is worth noting that there is an alternative to dollarization, even for small open economies: have a local currency issued by an independent central bank that focuses primarily on maintaining domestic price stability or low inflation, and that does not intervene in the foreign exchange market to manage the exchange rate. this approach works well for large economies such as the u.s. and europe. it also works for a few small economies: australia and new zealand, for example. but this approach seems to work well only for countries that have "good policies" and that do not suffer from "original sin" (countries that do not have persistently large budget deficits or persistently high inflation, and that have not previously suffered bouts of hyperinflation and large currency devaluations). such countries can focus economic policy on domestic objectives and let their exchange rates float without generating capital flight whenever their currencies depreciate, perhaps because markets believe the depreciation will prove temporary. as an empirical matter, markets grant countries that suffer from original sin less freedom to focus monetary policy on domestic objectives; capital flight occurs when the monetary policy that is appropriate for domestic objectives implies depreciation of the local currency. as a result, such countries do not allow their exchange rates to float freely; either they intervene in the foreign exchange market on a regular basis, or they adjust monetary policy as necessary to manage the exchange

country's goods and services. Low demand for the currency makes it depreciate against all other currencies, making the country's exports cheaper for foreigners and thus raising demand again. Under a fixed rate, an exchange rate adjustment (devaluation) is normally not an option, since it would undermine the credibility of the next peg. The central bank would either have to devalue the currency, or defend its peg by buying up the excess supply with foreign reserves. If speculators bet that the reserves would run out before demand increased again, they might launch an attack on the currency, forcing the bank to devalue it anyway. Currency mismatches that result from unofficial dollarization make it too costly to adjust the exchange rate; the freedom to do so is an illusion.

Literature concludes that fixing to a currency is most costly when the shocks to the two respective economies are asymmetric. If the country with the hard currency has an economy heavily service based, for example, while the country seeking to fix its exchange rate relies heavily on exports of natural resources, then the two economies are subject to different exogenous shocks; as a result, their economies are likely to be out of sync and a common monetary policy will not be appropriate. The size, openness of the economy as well as labor mobility between the two country or other means of smoothing out shocks (e.g. fiscal policy) are also relevant determinants. A fixed exchange rate is said to be better for some small, open economies whose imports and exports are large as compared to domestic production. Because the economy is so dependent on trade, even small fluctuations in the exchange rate introduce great uncertainty into GDP. As a result, many such countries choose to fix their currency's value to a hard currency like the dollar.

rate rather than as necessary for domestic objectives. it may also be true that full dollarization more effectively limits countries' ability to choose bad policies than does a freely floating local currency. "

Moving from a fixed exchange rate to a currency board is to increase confidence in the peg. Because the value of the currency is set by law, it is more difficult to devalue. More important, since the central bank must keep reserves for one hundred percent of its notes, the government cannot simply print more money at will; the money supply can only be increased by accumulating more reserves. In addition, capital market efficiency will increase, since the credible peg will reduce exchange rate risk in the interest rate demanded by foreign lenders.

While a currency board bases its peg in law, the legislature may be tempted to change it; in a country where the government may be tempted by short-term political benefit to give the economy a bump, a currency board may be insufficient to instill confidence in the local currency. A country contemplating moving beyond a currency board to dollarization is essentially admitting that the adoption of a currency board has not been viewed by locals or foreign lenders as a credible commitment to the fixed exchange rate and fiscal discipline. If this is the case, then the irreversibly fixed peg by dollarizing will generate further benefits in the form of yet lower inflation and interest rates. The costs are the loss of monetary policy, political sovereignty, and the loss of seigniorage revenues.

The main benefit of dollarization are lower inflation and interest rates. A history of high inflation and policy volatility are often prevalent in countries that are partially dollarized and are main reasons behind their dollarization in the first place. The high interest rates observed in many Latin American countries reflect both domestic inflation expectations and an external imposition of country risk and exchange rate risk. Inflation tends to be lower in dollarized economies because the growth of the money supply is limited exogenously by the United States. Under dollarization, as long as U.S. monetary policy is prudently managed, the dollarized economy should enjoy low inflation.

Dollarizing reduces or eliminates all of these causes of inflation. By importing low U.S. inflation, dollarized economies also import lower interest rates that often closely track U.S. rates. In addition, because dollarizing is essentially an irreversible fixing of the exchange rate to the dollar, it completely eliminates exchange rate risk from interest rates and reduces the spread between local and U.S. government bonds. This in turn encourages the formation of long-term capital markets and greater access to world capital markets.³

While the benefits of dollarization seem attractive to a country with a history of intractable inflation and high interest rates, dollarization is not a cure-all for the country otherwise unable to reform its finances and institutions. Official dollarization by itself will not infuse policy credibility into a government, and the same virtuous economic policies that are necessary to repair a country's reputation are necessary to make dollarization work. In order to ensure its effectiveness, dollarization itself should be followed with institutional reform to ensure, for example, that chronic budget deficits do not eliminate dollarization's contribution to low inflation. Even so, policy credibility takes decades to develop to the point where all political parties likely to accede to power support it and the public believes that it will not be retracted.

An additional benefit comes from the lower transactions costs attendant to foreign trade. In addition to deterring devaluation and inflation, dollarization reduces the transaction costs associated with international trade and finance with the United States, which is the most important trading partner for Latin America as a whole. Eliminating currency conversion would allow trade to flow more easily. In addition, there are

³ a country risk will probably still be imposed, however, to reflect the uncertainty in the country's fiscal or political policies.

Furthermore, a dollarized economy is far less prone to an event like the Asian financial crisis, which was fuelled by massive capital flight from countries thought to be vulnerable to devaluation. official dollarization , can make virtue more appealing by giving a country lower real interest rates, a less fragile banking system, , and more international trade.

Dollarization also implies some costs to the economy of a country that adopts it. A dollarizing country relinquishes several important policy instruments. Most important, perhaps, is the loss of monetary policy. While a the central bank of a currency board can control its money supply by using reserves to buy or sell its own currency, there is no such possibility when the dollar is the only currency. Monetary policy in a dollarized economy is made by the Federal Reserve in the United States, which may or may not be appropriate for the country at any given moment. The Federal Reserve's policy mandate is domestic, and the U.S. economic outlook chiefly dictates its policy decisions. Furthermore, chief policymakers at both the Fed and U.S. Department of the Treasury have stated that the policies of the United States will not be altered to adapt to the economic considerations of countries that choose to dollarize. As long as the U.S. maintains this stance, foreign governments considering full dollarization must do so with the understanding that U.S. monetary policy will remain focused on domestic issues.

Some economists argue that the loss of monetary policy is not to be grieved in a country that never used it effectively anyway. In addition, some say that small open economies can't really use independent monetary policy anyway: they have to use domestic monetary policy to keep the exchange rate fixed, if they have an officially fixed exchange rate, or to keep the exchange rate from changing quickly , if they have a floating exchange rate (because rapid currency depreciation/appreciation causes rapid inflation/deflation in a small open economy).

There is also a measurable monetary cost, called lost seigniorage, involved with forgoing a national currency. Seigniorage is the revenue gained by issuing currency, and can be understood as the difference between the value of a currency and the cost of printing it. Even where this does not occur, however, seigniorage is also lost in the form of interest on foreign reserves. Central banks normally back their currencies with U.S. Treasuries, which earn a small amount of interest. Governments that dollarize will give up these benefits, although this total benefit is estimated to be less than 1 percent of gross domestic product (GDP) in most countries. For the Ecuadorian case, with one it reserves productive approximate of 800 million, the se6noreaje could reach 35 million dollars per year or a 0.23% of the GIP.⁴

The inability to print unlimited amounts of currency also prevents a central bank from acting as lender of last resort (LOLR) to its banks in times of bank failure or liquidity crisis. In a dollarized economy, a bank could only serve this function if it had access to large amounts of dollars. On the other hand, official dollarization will promote full integration into world financial markets that will make a LOLR unnecessary. This is especially true if foreign banks acquire local banks. If this occurs, the banking system might import the liquidity of foreign banks. In any case, countries can arrange a substitute for a LOLR that can create and lend dollars by purchasing irrevocable lines of credit in dollars with foreign banks.⁵ A dollarized country also gives up the ability to use the inflation tax ("revenue of last resort") by printing money to make up for a revenue shortfall. While this tool is normally to be avoided because of its inflationary effects (it is the same as "monetizing" a deficit), it can be a benefit in times of

⁴central bank of ecuador dolarización
<http://www.bce.fin.ec/avisos/dolarizar.html#iii.1>.

⁵ dollarization primer

war or other national emergency. A dollarizing country, would lose this tool, because it is unable legally to create dollars.⁶

Adopting the dollar as the official currency has both political and economic ramifications for a nation. The loss of sovereignty that accompanies the surrender of monetary policy control, the national currency and the central bank is likely to spark opposition within a country. Such opposition is evident in some Latin American countries where the dollarization debate is under way. Although the business community in many of these nations appears to back dollarization, other segments of society may view the loss of sovereignty as too great a price despite the economic benefits. Countries debating whether to dollarize should also consider how reversible that policy would be. Although a government can always choose to end its dollarization policies, the risk of financial instability from this move would be a powerful force working against reversing dollarization.

Other Considerations

While Economic considerations are by far the important considerations in a country's dollarization decision, political consequences are also important. The most often cited political cost is a lost of national pride and cohesiveness caused by the disappearance of a national currency. However, in country where the dollar already substitutes for the local currency to a significant extent, it is unclear why this loss should be deeply felt. More serious is the potential for manipulation by the U.S. as occurred in Panama in the months leading up to the U.S. invasion of that country. In 1988, following accusations of corruption and drug smuggling against General Manuel Noriega, the United States froze Panamanian assets in U.S. banks and prohibited all payments and dollar transfers to Panama. The severe liquidity shortage that

⁶ benjamin j. cohen political dimensions of dollarization. remarks prepared for a conference on dollarization, federal reserve bank of dallas, march 6-7, 2000.

followed put pressure on the economy and caused most local banks to close. The country was effectively –demonetized, and the effect on the economy was devastating and domestic output fell by a fifth despite rushed efforts by the Panamanian authorities to create a substitute currency, mainly by issuing checks in standardized denominations that they hoped recipients would then treat as cash. The Panamanian experience serves as a reminder that dollarizing creates not only economic, but political vulnerabilities for the dollarizing nation.

The United States' Perspective

While the decision to dollarize a country has far-reaching economic and political consequences for the dollarizing country, the country whose currency is being adopted has far less to worry about. One benefit created by dollarization of a foreign country is the increase in seigniorage the United States collects from U.S. dollar holdings abroad. The gain is not large; for a country the size of Argentina, the gain amounts to a mere US\$750 million a year.⁷ Of course, the extent to which the U.S. profits from increased seigniorage depends on whether it chooses to share it with the dollarizing country. Options for sharing seigniorage and ways to operationalize them are treated in greater detail below. Other benefits include (1) the "power and prestige" that might be associated with the U.S. dollar's gaining further strength as an international currency;⁸ (2) the possibility of increased business for U.S. banks and other financial institutions; (3) the lower transactions costs for U.S. importers, exporters, borrowers, and lenders; and (4) Increased U.S. export to dollarized countries caused by economic growth in those countries.⁹ The fourth benefit is potentially the greatest. Businesses in the United States would benefit from the expected fall in inflation and interest rates in dollarized economies

⁷ (hanke and schuler 1999; schuler 1999b).

⁸ while power and prestige figured highly in testimony in favor of the mack bill, the euro's subsequent slide has confirmed the dollar as the world's premier currency and sapped the urgency from this argument.

⁹ *bogetic, zeljko* full dollarization: fad or future? challenge, march-april 2000

because these developments should, in turn, lead to faster rates of economic growth in these countries. The stronger consumption and increased sales this growth would spark could improve the performance of U.S. businesses that export to the dollarized markets. In addition, to the extent that full dollarization extends these countries' integration into the regional and global economies and, by lowering risk premiums, increases investment and growth, the United States will also indirectly benefit.

Critics of full dollarization (e.g., Sachs and Larrain 1999; Samuelson 1999) point to possible costs for the United States. . The greatest problem would result from dollarized country's dependence on U.S. monetary policy, which would give it an incentive to try to influence the Fed's decisions. In practice, however, unless a dollarizing country receives a seat on the Federal Reserve Board, the dollarizing country will have no effective way of influencing the U.S. monetary policy, and would be limited to informal requests for consideration. In his remarks to the Senate Banking committee, Chairman Alan Greenspan did not view this as a potential problem, stating that the Fed would ignore these requests.¹⁰ While this is easily said now, it is not clear that the U.S. could blithely ignore the impact of its decisions on other countries as trade and interdependence increases.¹¹ Another potential cost from the U.S. perspective would arise if the Federal Reserve would agree to extend the lender-of-last-resort facility to the dollarizing country. Indeed, in this case, it is conceivable that a dollarizing country with supervision and regulation standards initially lower than in the United States and a weaker

¹⁰ greenspan 1999). cited in bogetic. mention plaza agreement?

¹¹ sudden shifts in money demand in the newly dollarized economy--which may be more frequent and sudden than in the united states--complicate the conduct of u.s. monetary policy? true, net international dollar flows directly affect liquidity in the united states and so such shifts could add some short-term volatility to the u.s. monetary aggregates. but, under current monetary policy procedures in which the federal reserve conducts daily open-market operations to achieve a target federal-funds rate, the federal reserve would respond automatically to such liquidity shocks; hence there would be no real macroeconomic effects. furthermore, given the predominance of the united states relative to any dollarizing country; the size of such shifts in the demand for money in a dollarizing country would be such that it could easily be met by the daily open-market operations of the u.s. federal reserve.
bogetic, zeljko full dollarization: fad or future? challenge, march-april 2000

banking system may require a disproportionate amount of borrowing through this facility. Chairman Greenspan has also been negative on this issue.¹²

Implementation: Operational Steps

Once a country has weighed the economic and political implications of dollarization and opted to make the switch, it must implement a series of legal and policy measures in order to bring the new monetary regime to life. Since the path has been tread a few times, the main steps necessary to switch currencies are known. Most of these do not involve the United States, but are wholly domestic. The most important thing a country must do before dollarizing is accumulate, or arrange to borrow, the dollar reserves necessary to repurchase its own currency. The amount absolutely necessary is M0, or currency in circulation, but a country may choose to accumulate enough dollars to cover its bank reserves as well.¹³ Outstanding government bonds are also liabilities that must be taken into account. These are issued in local currency and must be repaid in dollars, raising the money supply and thus the amount of reserves necessary to dollarize. Of course, the total amount of the bonds need not be on hand at the outset; rather, the government needs only to acquire enough dollars to allow it to make regular interest and principal payments as they come due. Thus the amount of dollars needed equals the currency in circulation plus bonds, and optionally, bank deposits.¹⁴

The only way a country with a fixed exchange rate can accumulate dollars is to run a balance of payments surplus against the rest of the world. Purchases of local goods and services by foreigners will lead to purchases of local currency with foreign currencies, which can later be used to purchase dollars. A country that does not have sufficient reserves is not necessarily

¹² greenspan 1999.

¹³ dollars need not be held to cover demand deposits at banks. these accounts can merely be redenominated into dollars at the official rate. since the bank will not have liquid local currency on hand to pay off all these deposits, it need not have dollars. as dollars come into the bank, they can be used to meet liabilities. of course, this presents a problem if there is a bank panic, and depositors try to withdraw more funds than reserves there are reserves to cover.

precluded from dollarizing if it can borrow them. A number of sources might be imagined. The IMF's support of dollarization in Ecuador and loan of funds for banking sector reform suggest that the Fund might be willing to help.¹⁵ Another possible source would be the United States, since the cost to the U.S. of dollars is just the expense of paper and ink. Robert Barro has suggested that the U.S. finance dollarization by simply giving the dollarizing country the necessary notes. As long as the dollars circulated as currency within the dollarizing country, and were not used to purchase U.S. goods and services, there would be no effect on the U.S. money supply; since it is likely that the money supply will actually grow in that country (again, through a balance of payments surplus), there would never be a net flow of these dollars back into the U.S. except as financial assets, and the gift would be costless to the U.S.

Once the country has the necessary reserves, it must institute legal steps required to implement dollarization. The main steps are: (1) deciding whether the dollar will be legal tender or forced tender, and whether to issue coins or purchase them from the U.S.; (2) setting the conversion ratios for the currency and for interest rates; (3) setting a timeline for conversion and designating agents to perform its parts; and (4) removing or redefining defunct laws and institutions. In some countries, declaring the dollar legal tender will be strictly mechanical, while in others, it may require a constitutional amendment.¹⁶ The decision of whether to make the dollar forced tender depends mostly on whether another currency is likely to be utilized. For most Latin American countries, this will not be an important issue, since there is no other hard

¹⁴ instituto

¹⁵ instituto ecuatoriano de economía política. dolarizacion oficial en ecuador. january 13, 2000. http://www.vonbergen.com/ecuador/espanol/dolarizacion_oficial.htm

¹⁶ in such a case, it may be possible to avoid changing the constitution directly by simply redefining the local currency name to mean the american dollar by means of regulations or simple statute. then, the currency can be reintroduced at parity with the dollar. for example, ecuador passed law that made the dollar equal to 25000 old sucres and issued new sucres which equal one dollar. similarly, in panama, balboa, the old currency name, means dollar. *insituto*. this can be avoided in some cases by first setting the conversion rate for the dollar at x/dollar, then redenominating the local currency so that x old currency equals 1 new

currency likely to replace the dollar in current transactions. On the other hand, for an African, Asian, or European country, the Euro might well be an attractive means of exchange. If there were a significant likelihood that the Euro would gradually replace the dollar, any seigniorage sharing agreement would need to provide a means of determining when a country had de-dollarized to the extent that it forfeited its right to seigniorage. Hanke and Schuler have criticized a seigniorage sharing treaty in part because they assume that such a treaty would require that the dollar be a forced tender, while a unilateral offer of seigniorage would not.¹⁷ This assumption is not accurate, however; a treaty need not contain such a provision, and its mere inclusion would not solve the problem of how to deal with its breach, which is the main concern. Regardless of the choice of instrument used to embody a seigniorage sharing arrangement, a requirement of forced tender will always reduce the chance that a country will de-dollarize and lose its seigniorage.

The next step, the problem of converting existing contracts, debts, and securities into dollars has fewer implications for bilateral arrangements, but it is crucial that the dollarizing country choose the exchange rate carefully. Too high a peso/dollar rate, and the money supply will fall, causing economic contraction; too low, and the government not only wastes reserves, but injects excess dollars into the economy, causing inflation. The effect on contracts is equally important from a distributive point of view. If the conversion rate is set too low, then a contract for payment of 100 pesos is transformed into one for an amount of dollars that would buy 105 pesos worth of goods and services. This creates a transfer of wealth from debtors to lenders that will persist until inflation drives up prices and wages.

currency, and 1 new currency equals 1 dollar. that way, the country can simply declare that the currency's name is in fact the local term for the dollar (just as the balboa is the local name of the dollar in panama), and avoid amending the constitution.

¹⁷ at 9

Interest rates must also be reset correctly.¹⁸ Because interest rates are higher in the local currency, the interest rates specified in debts and securities will be inappropriate after dollarization. Moreover, the new rates will not necessarily be the same as those prevailing in the United States, since lenders will demand a country risk premium. As a result, some means will need to be devised by which the old interest rates can be converted into dollar rates. One way to do this is for the government to simply decree a ratio. For example, it could state that all interest rates in pesos be multiplied by 0.8 to arrive at the appropriate dollar interest rate. Such a method would be the simplest to implement, and if the ratio were chosen correctly, would be approximately correct for most instruments. Ecuador is using a slightly different approach: while the government has decreed new rates for certain items such as government bonds, it is using market to determine others. The ley de desagio requires the central bank to designate certain “reference assets and liabilities,” whose interest rate change will be monitored on dollarization. The percentage change will then be applied to all assets or liabilities in the same category. For example, if the one-year CD were the reference asset, and its average rate fell from 20% to 5%, then the rate for a CD paying 24% would fall to 6%. This approach has the advantage of using markets to determine the new interest rates while allowing variation among contracts to be preserved.

Another approach would be to allow refinancing of all contracts. This would quickly lead to market rates for all contract types and would obviate the need for government guesswork. On the other hand, mass refinancing would put a strain on banks and would generate a high amount legal fees. More serious, some people might forget to refinance or may not know that

¹⁸ hanke states that interest rates need not be adjusted. this is at variance with some other commentators. it seems that hanke’s comment should be interpreted as limited to the situation in argentina, where the currency board has already lowered spreads between peso and dollar assets. in such a case, the remaining country risk would be small and the error in dollar interest rates perhaps insignificant. of course, this results in no policy implication, since the switch to a currency board would have resulted in wrong interest rates.

they have to. These people would be left with large interest payments in dollars, leading to a large number of bankruptcies in the least sophisticated segments of society. A compromise position would be to set the conversion ratio initially until markets in dollars are established, then to adjust the decreed ratio to reflect the market equilibria. *[For any method that relies on market rates, time will be an issue. Should all rates be set during the transition period when the market is fragmented and rates may not reflect the equilibrium that would occur in a fully dollarized market? See¹⁹]*

The actual conversion will need to take place over a period of time in order to allow everyone time to exchange their old currency for dollars, and to allow businesses to change their pricing and accounting to dollars. Usually, during this transitional period, both currencies will be legal tender for all purposes.²⁰ Accounts and debts will also have to be translated into dollars, and banks may be required to translate the new accounts at no fee.

The dollarizing country will also want to retire laws that no longer have any legal effect, and redefine the roles of agencies affected by dollarization. One type of legal change is the elimination of exchange controls. Because the dollar is a totally convertible currency whose value is determined exogenously, there is no point in preventing residents from exchanging it for euros or yen or any other currency. The government cannot affect the value of the dollar against these other currencies. In addition, laws requiring all transactions to be made in the local currency can also be removed, since there is no public policy that is served by forcing people to use the dollar. A more complicated issue is redefining the role, if any of the central bank. Laws allowing the central bank to issue money will need to be repealed, and the central bank will have

¹⁹ ¿cómo se reprograman las deudas y las tasas de interés?
la dolarización en Ecuador. <http://www.hoy.com.ec/especial/dolar/dolar13.htm>

²⁰ instituto

to eliminate all its assets and liabilities, unless it will be used to house bank reserves.²¹ The central bank's role in lending to its banks will determine whether the central bank will continue to act as limited liquidity provider, or whether this role will be completely devolved to the private sector, such as the federal funds market in the U.S.²²

Implementation: Systemic Issues

Apart from more mechanical changes needed to effect dollarization, there are policies that a dollarizing country might wish to implement in order to make dollarization sustainable and credible, or to protect its financial system from systemic risk, but which are not strictly necessary for dollarization. These policies include reducing budget deficits to a sustainable level, strengthening the banking system, making labor markets more flexible, and the introduction, alteration, or elimination of deposit insurance. The most important of these choices, and one that depends on the existence and success of the others, is whether or not to arrange an alternate lender of last resort (LOLR). The main function of a LOLR is to provide liquidity in times of emergency, for example, in the event of a banking crisis or a drastic fall in liquidity caused by a stock market crash. A country that prints its own currency is able to respond to such exigencies by infusing an unlimited amount of emergency capital, and can handle even multiple bank failures. Under dollarization, however, the government's ability to serve as lender of last resort will be limited to the amount of dollars it has on hand plus the number it can borrow on short notice. For heavily indebted countries, this borrowing ability may be quite limited.

Economists differ on whether a lender of last resort is necessary or even desirable. Some say that the LOLR plays an important role in maintaining public confidence in the banking system. Others, pointing to empirical evidence that the worst bank crises occur in countries

²¹ the imf quota will need to be repurchased

²² central bank of ecuador. dolarizacion.

which have LOLR's, contend that it creates bad incentive for banks to take unreasonable risks, since they know that they will be backed up by the central bank should they face a liquidity crisis or a bank run.²³ In addition, there are alternative measures that might add to the real or apparent soundness of banks, such as imposing stricter reserve requirements or offering deposit insurance. Regardless of whether it is good or bad for a banking system to have a LOL, however, it is clear that some countries do choose to have them, and that a country removes the central bank as a source of liquidity when it dollarizes.²⁴ Assuming that a dollarized country does wish to fill this role, however, there are a few surrogates available. First, the United States Federal Reserve could grant access to its discount window. Second, the United States Treasury could explicitly designate its Exchange Stabilization Fund for use in supporting the banking systems of dollarized countries.²⁵ Third, the dollarized country could arrange for private, irrevocable lines of credit to be extended on the meeting of certain conditions.²⁶

The first option, that of opening the Fed discount window to foreign banks, has been roundly rejected by U.S. politicians and agency leaders on the grounds that it would subject the Federal Reserve to the lending risks of banks over which it has no supervisory authority. The only way that the discount window could be opened, they argue, is by subjecting the dollarized country's banks to U.S. safety and soundness regulation, a prospect that U.S. policy makers find incomprehensible, and which the dollarized nation might equally dislike.²⁷ However, these

²³ all the most expensive rescues of banking systems have occurred under central banking. argentina, in fact, holds the record for the most expensive bank rescue in proportion to the size of its economy: the banking crisis of 1980-82 cost 55% of gdp. hanke, how to make...

²⁴ stabilization policy and the costs of dollarization. stephanie schmitt-groh
rutgers university and cepr ma t ´yn uribe ‡ university of pennsylvania august 1,2000

²⁵ othergovernment and quasi-government funds might also be available, e.g., imf and national stabilization funds or the dc's own excess reserves.

²⁶ calvo (1999a,b,2000).

²⁷ since 1995, bank regulations have been further revised to impose more regulatory and market discipline on banks. first, banks are now supervised under a camel system—capital, assets, management, earnings, and liabilities, where each aspect is assessed on a scale of 1 to 5, and an overall rating for each bank is then expressed as an average of these scores, similar to that used by the office of the comptroller of the currency in the united states—and a basic system—bonds, external auditing, supervision, information, and credit rating. all banks are inspected on site by the superintendency at least every 18 months and banks with

problems are more political than financial.²⁸ It is true that enforcement of directives would be difficult, since there would be no way to enforce capital directives or other prescriptive measures.²⁹ Although U.S. banking regulators could perform supervisory visits, and identify areas the foreign bank needed to address, there would be no power to force the necessary changes. On the other hand, the U.S. could condition discounting on the Fed's judgment that the dollarized country's banking system was sound. To the extent that the dollarized country wishes to reform its banking system and provide a LOLR, such a provision would encourage in-country regulators to keep a strict watch on his would encourage the dollarized country to and could be retracted at any time, the dollarized country would have an incentive to force its banks to comply. Taking over banking supervision in other countries would also make their banking systems stronger—a result that would benefit everyone [*more about what would happen in the event of a bank failure—what sort of bankruptcy laws would the other country have, and would the Fed be able to take over the assets?]

Section 2 of the IMSA stated that the Federal Reserve was not obligated to serve as a lender of last resort to officially dollarized countries. However, this provision seems to leave open the possibility that the Fed could intervene to rescue a troubled foreign bank. Legislators would need to consider whether to allow the Fed to act as lender of last resort in such a circumstance or whether such intervention would be limited to traditional use of the International

difficulties, more often. second, traditional reserve requirements have been replaced by remunerated liquidity requirements, which are based on the residual time to maturity of deposits and other bank liabilities. the requirements have a decreasing rate that starts at 20 percent for liabilities due in less than 90 days and reaches 0 percent for liabilities due in one year or longer. only 20 percent of these requirements need to be channeled through the central bank. the rest can be invested in a wide range of very safe and liquid international assets. minimum capital requirements are based on counterparty risk, interest rate risk, and market risk for the trading portfolio. total capital requirements are the sum of the three requirements. counterparty risk along basel lines is further adjusted by the bank's camel rating and by loan interest rate spreads over intermediation costs (as a proxy for risk premiums). following the asian crisis of 1997-98, a rule (the so-called anti-bubble rule) was introduced that increases the capital requirement for new mortgage loans when a nationwide real estate price index surpasses certain thresholds. standardized procedures for the origination of home mortgages were introduced in 1998 to facilitate loan securitization. [pedro pou](#)

²⁸ one problem would be the appearance of united states hegemony over the dollarized countries own supervisory system.

stabilization fund. Of course, access to the discount window need not be by right. Upon the creation of the rand monetary area in South Africa, Lesotho and Swaziland in 1974, the South African Reserve bank gave Swaziland the opportunity to borrow only in special circumstances, thus providing a type of lender of last resort facility.³⁰ (Collings et al. 1978, pp. 114-16 (WHAT CONDITIONS?)) There is no reason the United States could not similarly limit access to periods of real need. Alternatively, the U.S. could condition payment of seigniorage on individual bank compliance (see below). For example, the Fed could pay seigniorage based on the percentage of the dollarized country's banks in compliance with safety and soundness standards. To the extent that banking supervision in that country is cheaper than that bank's share of the seigniorage, a dollarized country would always choose to enforce the safety and soundness standards. However, the penalty for noncompliance with the standards would seem too harsh, especially if for country was small and had few banks. For a country with a rather concentrated banking industry, the loss of a large portion of the seigniorage revenues might outweigh the real risk cost by the undercapitalized institution. Finally, the tying of seigniorage payments to a largely subjective judgment would open the Fed to accusations that United States was using its seigniorage sharing payments as a political device rather than a reimbursement for revenues generated by circulation of the dollar. This problem would be especially acute if the secretary's certification of a country could be conditioned on opening the banking system to foreign competition or meeting international capital standards.³¹

While discount window privileges might be desirable, emergency liquidity for a dollarizing country's banks does not hinge on the Fed's cooperation, for private contingent lines

²⁹ schuler mack, 8

³⁰ collings, frances d'a., et al. 1978. "the rand and the monetary systems of botswana, lesotho and swaziland." journal of modern african studies, v. 16, no. 1, mar., pp. 97-121

of credit can be prearranged. In a step designed to provide liquidity for its own banks, the Argentine central bank opened contingent repurchase agreements with 14 private international banks that can be triggered at its discretion. The contracts allow the Argentine central bank, at any time, to sell Argentine government bonds to the banks, and obligates the central bank to repurchase them at a later predetermined time (2-5 years later). The contracts provide that they are void in the event that Argentina defaults on its external debt, implying that the Argentine taxing power is the ultimate source of funds for the repurchase.³² They also omit any no-adverse-material-change clause that would otherwise permit banks to back out of their agreement in the event of a crisis.³³ In October 1999 the facility amounted to \$7.35 billion, about 9 percent of total deposits; The cost of the facility is 32 basis points per year (\$23 million per year). Recently, this contingent repurchase facility has been enhanced by a line of credit with the World Bank and the Inter-American Development Bank for a total of \$1 billion, which becomes available if the private repurchase facility is triggered and the central bank is required to meet margin calls because of declines in the prices of public securities.³⁴

Another source of liquidity would be available in any country with a banking sector open to foreign competition. Any such Latin American country would have many American banks, whose home offices or holding companies would serve as the provider of backup liquidity.

While these private lines of credit seem to be a good alternative to a LOLR, it is not clear that

³¹ the mack bill included terms to prevent the united states from becoming involved in foreign bank crises. section 3 requires the secretary of the treasury to consider whether a country has opened its banking system to foreign competition or met international banking standards before deciding to grant certification. schuler mack, 8

³² the government's fiscal authorities could also lend to banks directly.

³³ barry eichengreen [1998], "bailing in the private sector", mimeo, september.

³⁴ [pedro pou](#) "argentina's structural reforms of the 1990s." *finance and development*. [march 2000, volume 37, number 1](#)

<http://www.imf.org/external/pubs/ft/fandd/2000/03/pou.htm> mexico has also tapped international capital markets for liquidity protection by establishing a \$2.1 billion credit line with international banks. currency steve h. hanke please, no more 'new' imfs march 13, 2000 in *the wall street journal* as a letter to the editor <http://www.cato.org/dailys/03-21-00.html> indonesia likewise arranged stand-by facilities in june 1995, may 1996 and march 1997. the republic of indonesia drew approximately \$900 million

they necessarily protect the American Fed from foreign credit risk. Private lines of credit and home office liquidity must come from somewhere. If the credit is provided by American banks, then the American banking system bears the default risk, and the banks serve only to filter the Fed's risk. For large countries, the U.S. one-borrower rules would prevent any one bank from providing the credit, so that default risk would be spread out among several banks in a syndicate. Because even a large syndicate would unlikely have reserves on hand sufficient to provide liquidity to a foreign banking crisis, they would be forced to approach the Fed for a discount loan, so access to the window is indirect. The pass through does not remove the risk to the U.S. treasury, rather it passes it through several U.S. banks. It is not at all clear that this is preferable. Of course, lines of credit could also be provided from foreign banks' dollar holdings. In that case, the banking systems of those systems would bear the risk. Allowing American banks to provide such lines of credit would allow them to police the dollarized country's banking system by means of interest rates. On the other hand, banks large enough to assist with such credit might feel that they are too large to fail anyway and be negligent in their supervision of in-country risk. The important thing to remember is that denying access to the fed discount window does not remove the risk, but shifts or shares it. Insofar as American banks share in that risk, then the Treasury and FDIC are passing costs of failure onto the insurance fund or bank creditors and holders of large, uninsured deposits.

Implementation: Bilateral Measures

While lender of last resort services and banking regulation might involve bilateral cooperation, they need not and likely will not, if the tone of testimony submitted to the IMSA's hearing is any guide. However, there are other issues that are strictly bilateral because

of these stand-bys as of march 31, 1998 and drew another \$600 million in april 1998 weathering the international storm * willem h. buiter 2 december 1998

dollarization requires the dollarizing country to cede monetary authority to the U.S. These include monetary policy and seigniorage. A dollarizing economy necessarily gives up control over both, and can only retain some sort of control over them by action of the United States. Options for cooperation range from the same rights one would find in a monetary union such as the EU, to less intimate bilateral treaty with dollarizing nations, to unilateral action.

SEIGNIORAGE

Seigniorage is the most visible and quantifiable element in a country's cost-benefit calculus of full dollarization, and is also more compatible with cooperation than is monetary policy.³⁵ Seigniorage sharing used to be common among British colonies operating multicolonial currency boards, but it has largely disappeared with the replacement of most currency boards with central banks in the 1950 and 1960s. Today, among fully dollarized and bimonetary systems, only one seigniorage-sharing arrangement survives, that between Lesotho, Namibia, and South Africa within their CMA agreement.

Seigniorage sharing arrangements can be distinguished on the basis of three factors: the type of agreement, the formula according to which payments will be determined, and the degree to which the dollarizing country is able to challenge these determinations. In addition, variations are possible based on when payments are made. To a certain degree, these factors are interrelated: a treaty automatically implies that determinations as to value could be litigated in international court or arbitration, while a unilateral offer might offer arbitration or no opportunity to challenge determinations.

The most mechanical question, but one with important consequences, is how the seigniorage payment would be made as it accrues over a period of years, or whether it will be made in one lump sum. A related question is what form the payment would take: a simple

transfer or an interest-bearing security. While seigniorage benefits accrue as a flow, it is possible to make a lump sum payment equal to the discounted value of future benefits. Such plan has been proposed by Barro. However, it suffers from lack of enforcement mechanism. As time passed, politicians in the dollarizing country might wish to revert to a national currency. While the agreement under which the country received the payment would probably require repayment in this case, the country might not have the cash.

Velde has suggested an elegant solution to this problem: a third party could hold the dollarizing country's treasury securities in escrow, forwarding interest payments to the dollarized country as long as it remained dollarized. Any attempt to reintroduce a national currency would trigger forfeiture of the securities to the United States. Forfeiture would remove the temptation to reintroduce a currency, so the cash flows from interest payments would be secure enough to pledge as collateral for loans of any shortfall in reserves, allowing even countries with insufficient reserves to dollarize without running current account surpluses for years.³⁶ The cost to the United States remains zero, and monitoring virtually costless, since a move back to a national currency would be a well-publicized event. Practically, however, official de-dollarization is less troublesome than unofficial de-dollarization, since it is not a discrete event. It is difficult to imagine how Velde's plan would work in the case of, for example, a gradual replacement of the dollar by another currency. It would be impossible to know when dollar circulation in country fell below the level of the original gift tranche, and any attempt to seize the treasury securities in such a situation might be met with resistance. For this reason, Velde's plan would need to

³⁵ fischer 1993

³⁶ the danger of de-dollarization has probably been exaggerated by proponents of competing plans. presumably, only clear failure of dollarization would prompt such a painful move, because it would be difficult to convince people to turn in their dollars for some untested currency. in-country deposits could be de-dollarized easily, but this would create the problem of knowing which deposits were truly local and which were the result of serving as a regional dollar banking center for neighboring countries. offshore dollar assets could not be reconverted, and any advance warning of the plan to dedollarize might prompt capital flight to offshore banks, resulting in a liquidity crunch.

specify a measure by which circulation could be measured. This turns out to be a problem common to all seigniorage sharing schemes.

The IMSA also proposes periodic payment of interest on a security. However, rather than committing the treasuries to an escrow, the Act requires their redemption with the Treasury in exchange for a consol. The Act would employ a consol, a perpetual debt security on which the issuer pays interest payments but not principle. The face value of the consol is determined by the amount of treasury securities traded in to the U.S. for notes, up to a maximum amount equal to the dollar value of local currency circulating in the country before dollarization . The dollarized country would receive interest payments on that principle value according to the 3-month average return on 90-day treasury bills. The Act would give consol holders the same rights as holders of other treasuries, with the exception that payments would cease should the United States declare war on the recipient country or the Secretary of the Treasury issues a finding that the country is no longer officially dollarized. Holders of consols can pledge them as collateral or sell them, just as they can with other Treasury securities. But since payments would cease in the event of war or de-dollarization, consols would be country-specific so this “country risk” discount could follow the appropriate consols. .

The IMSA suffers from the same problems as the Velde concept. First, there is no way to increase seigniorage payments to a country whose money supply is growing faster than that of the United States.³⁷ It is reasonable to assume that this would be the case for dollarizing countries, since faster economic growth would lead to a faster expansion of the money supply. With interest payments being made based on a fixed supply of treasury securities (Velde) or the assumption that all countries are monetizing at the same rate (IMSA), it is certain that countries

³⁷ *bogetic, zeljko full dollarization: fad or future? challenge, march-april 2000*

will grow out of their seigniorage payments. Only careful maintenance of current and capital accounting would provide a means to estimate the rate of money growth in a dollarized country.

Members of the rand Common Monetary Area have approached this problem by assuming that differential monetization occurs at its historical rate. Namibia and Lesotho both formerly used the South African rand exclusively, and now allow it to circulate in parallel to their own currencies, which are pegged to the rand at 1-to-1.³⁸ South Africa pays them seigniorage based on a formula recognizing that since they are less developed, demand for currency is probably increasing faster than it is in South Africa and the share of seigniorage they generate is increasing (South Africa 1974, 1993). The formula allocates each country a base amount of seigniorage based on initial shares of rand circulation, allowing that share to increase 20% faster than the total rand circulation outside banks in the area as a whole.^{39,40} The disadvantage of applying such formulae to the dollar is that countries potentially interested in dollarizing may vary in the level and rate of economic development, precluding broadly applicable ratios and necessitating individual economic assessment of each country.⁴¹ In addition, there is the danger that the rate of monetary expansion in dollarized countries is overestimated, or later slows, so that too much seigniorage is paid.

The CMA method might be suitable for estimating in a rough way the rate of money growth in country; however, it will not resolve the uncertainty in a determination of when a country is sufficiently dollarized to begin receiving payments, or sufficiently de-dollarized that it must forfeit its seigniorage payments. One not very satisfying approach would be to issue dollar

³⁸ schuler. ack analys.

³⁹ seigniorage is paid at two-thirds of the return on the estimated rand circulation in their territories that these countries would have earned had these funds been invested in long term south african government securities.³⁹ the proportion of two-thirds was agreed upon as a compromise to take into account the differences between short-term and long-term returns on securities. collings.

⁴⁰ *bogetic, zeljko* full dollarization: fad or future? challenge, march-april 2000

⁴¹ the mack dollarization plan:an analysis

notes of different design for each officially dollarized country. “The Bureau of Engraving and Printing would print special designs for Panama, Ecuador, and other countries distinct from each other and from U.S. designs, though all would circulate at the same value. The United States would pay seigniorage proportional to the amount of each design of note in circulation. The design feature could be as minor as the different letter code printed for each Federal Reserve district on the now-disappearing old-style U.S. currency notes. However, the smaller the differences in design, the more dollars are likely to circulate across national boundaries, as dollar bills circulate across Federal Reserve districts, and the less accurate the determination of seigniorage would be.”⁴² In addition, if seigniorage payments depend on the number of these notes issued, a country will have an incentive to exaggerate its money supply by leaking its own dollars out into world and presenting alternative dollars to the Fed as evidence of its current account surplus. With all countries trying the same trick, the system would soon provide no information at all.

Short of some better way of estimating circulation, the ultimate determination of whether a country has de-dollarized will be a judgment call. While the Velde plan would presumably commit this decision to arbitration, the IMSA leaves the determination of both dollarization and de-dollarization to the complete discretion of the Secretary of the Treasury. The Act’s only accountability for the Secretary is the requirement that all decisions regarding “certification” or “decertification” be explained in writing. To the extent that these decisions are viewed as politically motivated, this provision would undermine confidence in the arrangement.

Unfortunately, there is no good way to prevent this short of a treaty, since Congress can always change its mind about what conditions will trigger cessation of seigniorage payments. The basic distinction between a treaty and unilateral offer such as the IMSA is the legal status of

⁴² schuler. mack analys.

the commitment to share seigniorage. A treaty is a binding agreement, and thus provides much more protection to both parties from political changes that would seek one party to withdraw. The United States would be unable to prevent the flow of payments for political reasons unless those conditions are spelled out in the treaty, and future congresses could not undo the agreement except by abrogating the treaty, a breach of contract in international law for which the United States would be liable for damages. For example, the U.S. might reserve the right to suspend payments in the event of an act of terrorism or war against the U.S. or its allies. It could also condition receipt of any year's seigniorage payment on the absence of any sanctions being imposed by the United Nations, or on the human rights record of the receiving nation based on the evaluation of a human rights organization. In short, there are a number of ways to limit the risk that the United States would find itself committed by law to paying tens of million dollars a year to a repressive or hostile regime, or to one which had defaulted on U.S. obligations.⁴³ Of course, the treaty's binding nature also protects the United States from de-dollarization by the recipient country; any treaty could provide for forfeiture of payments in such a case.

The main disadvantages of a treaty are time and irreversibility. Treaties take years to negotiate, and often years more to become ratified. In addition, with a number of potentially dollarizing countries, it would be time consuming to negotiate separate treaties with each country; it might also result in different terms for different countries, which might be seen as unfair. In order to prevent duplicative drafting, and asymmetric terms, a single multilateral treaty would need to cover all dollarizing countries, so that a country need only sign on and certify as dollarized before it could begin receiving payments.

⁴³ the treaty might also include a provision allowing the u.s. to offset any debt payments due to the u.s. from the dollarized country. thus securing the u.s. first place in line of creditors.

The United States Treasury has already expressed its unwillingness to commit to sharing seigniorage in a treaty, and it is unlikely that the U.S. senate would ratify an agreement that commits us to give away money that strictly speaking we do not have to give away.⁴⁴ Still, it is unlikely that the United States will be motivated in the next decade to negotiate a treaty for seigniorage sharing, even if the Congress were in favor of the idea. As a result, the most likely format for seigniorage sharing, if it happens at all, will be an open-ended offer on the part of the US with no status as a source of international law. If this is the case, there is still room to de-politicize decisions by allowing review and appeal administrative decisions. If the purpose of seigniorage sharing agreement really is to encourage dollarization, then there is little reason to worry that injecting procedural fairness would subject the United States to any risk. If, on the other hand, the U.S. wishes to condition payments on political factors, then it should drop the pretense of sharing seigniorage and simply distribute the money as discretionary foreign aid.

Although a unilateral offer to share seigniorage would prevent appeal to international courts or tribunals, it need not completely eliminate a dollarized country's right to question decisions regarding its payments under the scheme. To allow no review may protect the United States interests if they are aligned with those of the Secretary of the Treasury; however, it would undermine the purpose of such an act: to encourage dollarization. In addition, a completely discretionary decision would limit the dollarizing country's ability to use the seigniorage cash flow to collateralize loans for make-up reserves or credit facilities. There are a couple of options available, and to avoid ambiguity, Congress should explicitly state what standard of review is available and who has standing to challenge decisions (to limit the number of cases, standing should be limited to the country whose status is being determined).

⁴⁴ it is unclear whether these objections are based on uncertainty that the u.s. should encourage dollarization, failure of representatives to understand that the payments do not cost the u.s. money, a belief that payments are unnecessary because

One form of review is substantive review in federal courts. Such a system would give dollarize countries rights closer to those they would have under arbitration provisions in a treaty, while keeping the proceedings within the American judicial system. However, it is unlikely that courts would be able to perform a meaningful review of such a technical decision. In addition, the added security of that the substantive review provides would not likely be sufficient to entice a country to dollarize. Perhaps the easiest way of providing minimal review of agency decisions regarding dollarization would go to allow judicial review under the administrative procedures act. Under the APA, courts cannot review of the substance on decision, but limit their review to the question of whether the agency had a sound basis for coming to the conclusion that reached. Because most agency decisions would be rather straightforward, based on formulae, though the opportunity to challenge the amount of seigniorage payments. Decisions regarding a dollarized country's dollarization status or certification might be slightly more amenable to argument, and strict adherence to formula need not be a prerequisite for a reasoned finding.

Figure 1 summarizes this discussion. The main tensions and tradeoffs are between the U.S.'s discretion in determining payment eligibility and amounts (which is negatively correlated with the security of the dollarizing country's claim to payment), and the dollarizing country's ability to use the revenue stream to collateralize reserve loans or lending facilities; (2) low administrative burden of security based payments versus the flexibility and grater potential for accuracy of formulae which consider differing rates of monetization . A conclusion is that IMSA imposes costs in the form of less pledgeable seigniorage payments in exchange for discretion which offers little protection than a treaty; as a result, it is not as effective an encouragement of dollarization as would be the Velde proposal or a complete treaty.

countries will dollarize unilaterally, or just the lack of political interest in the subject.

Decreasing U.S. discretion ↓		U.S. Interests			Dollarizing Country's Interests		
		Suspend Payments to Enemy	Low Admin. Costs	Prevents Over-payment	Low U.S. Discretion; Minimal Political Influence	Differential monetization; Prevents Underpayment	Lowers costs of reserve accumulation
	CMA style Treaty w/ Periodic Payments	+	+	(-)	+	+	++
	Velde Escrowed Reserves	+	+	+	+	-	++
	Barrow Lump Sum	-	+	+	+	-	+
	Standing Offer w/ circulation-based payments	+	--	(-)	+	+	+
	IMSA	+	+	+	-	-	(+)

(EXPLAIN THE TENSIONS IN THE CHART IN MORE DETAIL)