Dual Monetary Systems in the Western Hemisphere and the Cuban Transition

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When the Cuban economy begins its ultimate transition from a centralized system to a market-oriented system, the experience will be both prolonged and disruptive of normal economic activity. Policymakers must confront the need for extensive structural changes, while having to deal with equally significant political and economic stresses. The institutional arrangements chosen by the transitional government will have a great bearing on the length and success of the transition.

The recent "dollarization" of Cuba by the Castro administration, from June to August, 1993, was both a tacit acknowledgment of the dual monetary system that now exists in the island state, and a move to attract more foreign exchange, primarily U.S. dollars. Dollarization also acknowledged the Cuban black market, where the U.S. dollar serves as a store of value and a medium for its transfer. Many other countries in and around the Caribbean either encourage or tolerate monetary systems in which U.S. dollars circulate along with the nation's own currency, and are further transferred by travellers' checks, credit cards, and personal bank checks or drafts. Cuba's adoption of a two-currency arrangement, in spite of the Castro administration's prior resistance to such a change, suggests that there are clear current advantages to a dual monetary systems.

Sanguinetty and Moreno have recommended that the dual monetary system in Cuba be made permanent and formal during the transition. They argue that a formal system, with both the Cuban peso and the U.S. dollar circulating as unlimited legal tender currencies, would both facilitate growth during the transition, and encourage the proper monetary and fiscal policies for Cuban economic recovery.

Since other hemispheric nations have adopted or accepted a dual system, some formally, but most informally, the question arises concerning the need for a formal system, having the characteristics specified by Moreno and Sanguinetty. Will Cuba benefit as much from an informal dual monetary system, as from an institutionalized system in which the U.S. dollar is accorded legal tender status?

This paper addresses that specific question. The initial sections of the paper focus on the nature of dual monetary systems, and present historical examples of such monetary systems in this hemisphere. The subsequent sections analyze current use of the U.S. dollar in both formal and informal dual monetary systems, emphasizing the underlying economic reasons for such arrangements. Finally, the advantages and disadvantages of the two systems are discussed, and their specific applicability to the Cuban situation is argued.

I. Monies in a Dual Monetary System

If a country chooses to adopt or accept the concurrent use of two different national monies in its economic system, the specific functions performed by those monies are of critical importance. Traditionally, money has been defined as a commodity that serves as a medium of exchange, a standard of value (or money of account), and a store of value. If the commodity is used in the denomination of debts, it also serves as a standard of deferred payment.[1]

The analysis of a typical tourist economy in the Caribbean, in which U.S. dollars are accepted for transactions and given in change at hotels, shops, and restaurants, shows the U.S. currency functioning both as a medium of exchange and as a money of account. Prices are often quoted in both U.S. dollars and the native currency, or in U. S. dollars alone. To the extent that local merchants and citizens hold U.S. dollars for any length of time, the currency (or other forms of U.S. money) also serves as a store of

value. It is also clear that the international drug economy is an experienced user of U.S. dollars for transactions and store of value purposes. The dollar may also serve as a *de facto* standard of deferred payment, since drugs flow almost freely across international boundaries. The lack of adequate documentation prevents more extensive analysis.

Only if the U.S. dollar is established in a more formal monetary relationship can it perform as a legal standard of deferred payment. For this last function to be realized, the U.S. dollar must normally be defined as legal tender, and the law of the land must accept it as a measure of debt. In other words, dollars can be lent and repaid, or a mixture of native currencies and U.S. dollars can be lent and repaid, and the debt instruments can be denominated in both monies of account.

The nature of dual monetary systems is best understood when placed in a historical context. Concurrent use of several currencies (or coinages) has been a common feature of many economies in the past. With the passing of the international gold standard, however, the characteristics of dual systems have changed.

A. The Gold Standard and Bimetallism

During the centuries when the international gold standard held sway, and full-bodied coins were a major circulating medium, foreign coins were acceptable to merchants if their precious metal content was known. An exchange rate between the different national coins could be readily computed, based on the respective precious metal levels.

As a country's balance of trade fluctuated from positive to negative, inflows and outflows of precious metal coinage would occur, creating, in effect, a dual (or multiple standard) monetary system. For example, American merchants during the colonial period freely accepted British, French, Spanish, Portuguese, and Dutch coinage, reflecting the diverse trade flows of the time. The silver and gold content of the coins was the unifying factor that permitted the system to operate.[2]

Another metallic standard that has been adopted periodically in the past is the bimetallic standard. Kemmerer defines it as follows:

True bimetallism exists when a country opens its mints to the free and unlimited coinage of gold and silver, at a fixed ratio of equivalence called the mint ratio, giving to the coins of both metals (other than the fractional coins whose coinage is usually limited) a like standing before the law. The coins that enjoy the free coinage privilege are usually made unlimited legal tender.[3]

The stability of a bimetallic system depends critically upon the equivalence of the mint ratio between gold and silver, and the corresponding market ratio between the metals in international commodity markets. If the two ratios are equal, then both gold and silver coins may be minted, as both precious metals will be brought to the mint for coinage. If the two ratios are different, then Gresham's Law may cause the disappearance of one of the two precious metals from circulation, and the emergence of a de facto monometallic system.

In this context, Walton and Rockoff explain Gresham's Law as follows: "money overvalued at the mint tends to drive out of circulation money undervalued at the mint, providing that the two monies circulate at face value [are full-bodied]". Popular expressions of this relationship include "bad money drives out good" and "cheap money replaces dear". Note that the above definition can be applied not only to a bimetallic system, but also to a monometallic system in which some of the coins are debased (overvalued at the mint) and others remain full-bodied (undervalued at the mint), and to a system in which full-bodied coins and paper money circulate concomitantly.[4]

Kemmerer points out that international bimetallism was one possible means of reducing the effect of

Gresham's Law. In this broader arrangement, several nations would band together in a monetary union. Each participating member would establish and maintain the same mint ratio between gold and silver. Kemmerer concludes that "the larger the number of countries that enter into such a monetary union, and the stronger that the countries are from the monetary point of view, the stronger will be the bimetallic standard that they establish".[5]

B. Modern Dual Monetary Systems

Since World War I, the gradual abridgement and abandonment of the traditional international gold standard have changed the nature of dual monetary systems. A gold exchange standard, distinguished by extensive intervention by central banks, characterized the 1920's. The Great Depression of the 1930's, followed by World War II, generated changes that led to the Bretton Woods institutions. Finally, in 1974, the United States led the way in abandoning gold as a standard money. Kemmerer's explanation of a dual monetary system applies both to historical and to current financial frameworks.

The dual standard exists when currencies on two different standards and without any permanent legal value ratio between them circulate side by side, each independently of the other at market rates varying one with the other. During the seventeenth and eighteenth centuries, gold and silver coins frequently circulated side by side this way in Europe.[6]

Note that the system here described is characterized by a flexible exchange rate between the currencies, and only one of the currencies possesses legal tender properties.

For the purposes of this paper, a dual monetary system in which only one of the currencies is legal tender will be designated an *informal dual monetary system*. A dual monetary system in which both of the currencies have been accorded legal tender status by government will be termed a *formal dual monetary system*.

Note that the term, "currency substitution", has gained wide use in the literature over the past decade. Ramírez-Rojas defines currency substitution as "the demand for foreign fiat money by domestic residents of a country", regardless of the reasons for that demand. This definition suggests that currency substitution will normally be one of the characteristics of a dual monetary system, but is not an adequately broad concept to describe the complex of institutional arrangements contemplated in this paper. Accordingly, the earlier, more comprehensive term, is used here.[7]

Selected examples of the systems classified in this section will serve to illuminate their operating characteristics and to illustrate the operation of Gresham's Law.

II. Dual Monetary Systems of the Eighteenth and Nineteenth Centuries

During the centuries of mercantilistic expansion, when gold and silver served as standard monies in both hemispheres, the circulation of more than one currency or coinage was common in most trading countries. In some instances, the relationship was not only accepted, but was accorded a formal status in law. Representative examples include the use of foreign coinage as legal tender in the United States, and the use of trade dollars in eastern countries.

A. U.S. Monetary History, 1792-1857

The United States was legally on a bimetallic standard from the Mint Act of 1792 until the Coinage Act of 1873. The initial authorized coinage in 1792 included both silver and gold coins, at a mint ratio of 15 to 1, as recommended by Alexander Hamilton. In order to encourage an adequate circulating coinage, Congress made foreign gold and silver coins legal tender in 1793. This status was periodically removed

from and reinstated for foreign coins from 1797 to 1809, when their legal tender status was eliminated by Congress.[8]

The most common circulating coin during the early national period was the Spanish or Mexican "dollar", the eight-real coin. Hamilton used this coin as a pattern for the first American silver dollars, giving them a similar, but slightly lower, silver content. It was common usage in the market place to cut the "piece of eight" into halves, quarters, and eighths to make fractional coinage, or "bits", giving rise to "two bit" clipped pieces worth 25 cents, and "four bit" pieces worth 50 cents. Since the early coinage acts did not create acceptable fiduciary coins, these foreign fractional coins continued circulating long after they were declared not to be legal tender. They gradually became so worn that their intrinsic value was far less than their trade or exchange value.

From 1792 to 1834, the market ratio between silver and gold averaged 15.61 to 1. Silver was thus overvalued at the mint, discouraging the minting of gold coins. Over this period, the total minting of silver coins was $36.3 million; gold coins amounted to only $11.8 million.[9] Gresham's Law clearly held. In addition, the coinage of silver dollars was discontinued from 1806 until 1836. Although the U.S. dollars contained less silver than their Spanish/Mexican counterparts, they were beautifully made and, when new, very shiny. The citizens of the West Indies found the U.S. coins so attractive that they demanded them in exchange for the heavier piece of eight. U.S. dollars thus began flowing out of the country, to be replaced by foreign coinage. Minting ceased to discourage this outflow.

By the 1830's, the supply of coins in the United States was meager. There were very few gold coins circulating, and no silver dollars. The principal circulating U.S. coin was the silver half dollar. The fractional coinage of the day was mainly "clipped and worn foreign coins of small denominations".[10] The mint ratio and related political decisions of early administrations thus threatened the existence of a dual monetary system, in which domestic and foreign coins circulated at par. Instead, a largely monometallic system operated, based primarily upon silver. It can also be argued that these policies encouraged the expansion of state banking and the widespread emission of paper money by those banks.

In 1834, the effects of Gresham's Law were once again contemplated by Congress, when the U.S. mint ratio was changed to 16.002 to 1. The Coinage Act of 1837 reduced the ratio slightly, to 15.9884 to 1. Since this level was greater than the international market ratio, estimated to be 15.69 to 1 at the time, it effectively overvalued gold at the mint. The first American gold rush, in the Southern Alleghenies, had begun around 1828. The change in mint ratio thus appeared to be partly an encouragement to the domestic gold-mining industry.

Its practical effects were not too striking before 1850. Silver dollars disappeared from circulation, as did some of the other silver coins. The circulating fractional coinage, most of it still foreign, remained unaffected, and was generally adequate in supply. Once gold was discovered in California, in 1848, and gold from the Australian fields began entering the country, the situation changed. By 1853, the market ratio was back down to about 15.33 to 1. Almost all domestic silver coins dropped out of circulation. To meet the need for change, fractional parts of Spanish dollars were more extensively used, as were torn portions of paper banknotes, known as "rags".

The Fiduciary Coinage Act of 1853 finally recognized the folly of using only full-bodied coins. It authorized the minting of fractional coins having a precious metal content far below their exchange value. Coinage was increased, few of the fiduciary coins were melted down, and the "small change" crisis passed. In addition, large amounts of gold coins were being minted.

By 1857, domestic coinage was deemed adequate enough to meet the needs of trade. Legal tender status was officially removed from all foreign coins. Circulating Spanish fractional coinage was redeemed at

par by the Government (most of these coins or coin parts contained so little silver that they were effectively fiduciary coins) and was melted for recoinage into American money.[11]

It thus took the fledgling United States government 65 years to institute an effective domestic monetary system. During that period of time, a dual monetary system was one potentially effective and practical means of providing for the needs of trade. Without the inflow and usage of foreign coins, particularly the Spanish/Mexican eight-real coins, early national development would have been difficult indeed. Unfortunately, political decisions concerning the mint ratio impaired the effective operation of the dual monetary system.

B. Trade Dollars

During the seventeenth century, European nations competed for the "East Indies trade", which included not only commerce with southeastern Asia, but extensions to India, Japan, and China. The Dutch and the Portuguese established early footholds, so that their trading companies dominated this part of the globe until 1699. Thereafter, the English became increasingly strong competitors.

Goods purchased by Europeans in the Orient were generally paid for with silver specie. Not surprisingly, the most common and most acceptable silver coins were Spanish, which limited the trading ability of those nations not possessing adequate stockpiles of the coinage. Accordingly, both the Dutch and the English struck special coins for the far eastern trade, approximating the silver content of the Spanish piece of eight. These were the first of a long series of special "trade dollars",

coins that were struck specifically for foreign trading purposes, and for continued circulation in foreign markets.[12]

Non-Spanish coins were accepted slowly and reluctantly by far eastern traders, both because they were unfamiliar, and because of the fear of debasement. Nevertheless, most of the trading nations ultimately established a separate coinage for what became known as the "China trade". The coins included British Hong Kong dollars, Venetian ducats, French Indo-China piastres de commerce, Japanese silver yen, and, perhaps the hardiest perennial of all, the Maria Theresa Thaler. The United States attempted to introduce its own trade dollar in 1873, raising its silver content to approximate the Spanish coins, but redeemed and retired those in circulation beginning in 1887. Over the years, almost 36 million trade dollars had been minted. About $7.7 million worth of trade dollars were redeemed, most of which were minted into subsidiary coins.[13]

Although the United States decided to retreat from the trade dollar markets, other nations continued active coinage. The Maria Theresa Thaler was coined for over two hundred years, virtually all of the later coins still bearing the original design and issue date of 1780. The issuance of trade coins by so many nations, and the acceptance of this coinage by merchants in many eastern countries, created a multiple monetary system, unified by silver (or, more realistically, by the silver content of the Spanish eight-real coin). It existed because of market needs for liquidity and purchasing power, needs that could not be satisfied by a single coinage alone. Eastern merchants therefore accepted the necessity of a variety of national coins, adapting their merchandising methods and accounting systems to fit that model. Necessity, as in the case of the early national United States, bred invention and adaptation.

Both of these examples illustrate the virtue of a dual or multiple monetary system as a facilitator of economic growth. In the case of the early United States, a formal dual monetary system, followed by an informal system to 1857, encouraged the inflow of funds needed for infrastructure expansion and frontier growth. When the system failed to provide an adequate financial base for growth, the domestic private banking system emerged to supplement the circulating coinage with paper banknotes. The legal status of

trade dollars varied from one country to another. They were nevertheless a clear aid to trade expansion in the eastern hemisphere for over two centuries.

Friedman bolsters this conclusion by arguing that a viable bimetallic system in the United States during the 1866-1896 period would probably have mitigated the secular deflation that occurred during that period. By forcing a gold standard, at a time when the annual rate of international gold production was slowing and international silver production was expanding rapidly, the U.S. Congress

strongly influenced a half-century of national growth.[14] A functioning dual monetary system would arguably have exerted a positive impact on the national economy between the Civil War and the First World War.

III. Dual Monetary Systems in this Hemisphere

Although many dual monetary systems exist in the Western Hemisphere, only one formal system operates. It is found in the Republic of Panama. There the U.S. dollar is legal tender. U.S. Federal Reserve notes circulate as the country's paper currency. The Panamanian balboa is the local currency. It was created in 1904, and is tied to the U.S. dollar, with a fixed exchange rate of one to one. Panamanian coins are issued in the same denominations, weights, and sizes, as U.S. coins.[15] Although technically a formal dual monetary system, the monetary framework in Panama in practice is a dollar-based system with the balboa as an appendage. The low importance of the national currency is signaled by the fact that Panama does not have a central bank. Instead, the limited nonmonetary central bank activities carried out by the government are effected through a state-owned commercial bank.

Such a system would not exist --and the country of Panama would not exist-- except for the Panama Canal. When the Canal was completed, the United States ensured control of this important waterway by supporting a revolutionary movement for independence. Panama was created out of former Colombian territory, and, upon independence in 1903, immediately became a client state of the United States. The Panama Canal Zone, a sixteen-kilometer-wide strip of land immediately surrounding the Canal, was established as United States property. Panama itself was essentially a United States colony until 1979, when the Carter administration negotiated a treaty to return the Canal to Panama at the end of the century.[16] As will be pointed out below, the Panamanian system presents both advantages and disadvantages for the Panamanian people.

Informal systems in which the U.S. dollar is accepted for certain exchange purposes exist throughout this hemisphere. In fact, such systems have operated for many decades. Kemmerer records the following reminiscence:

In 1919 the writer saw such a dual system in full operation in the city of Guatemala in Central America. Here the principal money at that time consisted of depreciated bank notes --fiduciary standard money-- issued by a few local banks and circulating in the neighborhood of three to four cents United States currency to the peso. Along with them there circulated large quantities of United States money, the peso value of the United States dollar varying from day to day and the exchange rate being regularly quoted in the daily press. In buying goods, one could pay in one or the other money as he desired at the current market rate of the day. In the early days of the American occupancy of the Philippine Islands and of Puerto Rico, there existed such dual currencies, the local silver standard or fiduciary standard money of the country circulating side by side with United States gold standard money.[17]

Today, Mexican towns and cities on the U.S. border provide familiar examples. Tijuana, just across the border from San Diego, has an economy that literally runs on U.S. dollars. This phenomenon exists far beyond the territorial boundaries of the United States, however. Table 1 describes the monetary situation

in countries in and around the Caribbean, with a particular focus on the acceptability and use of the U.S. dollar.

These examples could be multiplied by considering other countries and trade centers in Latin America. While Table 1 suggests the importance of the U.S. dollar in the Caribbean, it understates the extent of its circulation. The monetary system in Belize may be used as an illustration to amplify this point.

The Case of Belize

Belize has maintained a fixed exchange rate between the U.S. dollar and the Belizean dollar since 1976. [18] The country has accepted the existence of a dual monetary system, in which both currencies circulate, but only the Belizean dollar has legal tender status. It is also the money of account in which debts are denominated. Visitors to the country may officially exchange U.S. dollars for Belizean currency only at major financial institutions, including a branch of the Bank of Belize at the Goldson International Airport. In point of fact, dollars are informally exchanged throughout the country, and are accepted as payment at hotels, restaurants, many shops, vehicle rental agencies, and tourist agencies. The cash transactions usually take place at the official exchange rate of two to one. Major traveller's checks may be used at most hotels, larger restaurants, and stores, often at a an exchange rate that is more favorable than the official one. Credit card transactions are carried out in both currencies, depending on the current needs of the merchant. Although the fact is not advertised by merchants, dollar-denominated checks drawn on U.S. banks are also accepted for major purchases in many cases. They are routinely processed through the Belizean commercial banking system.

Table 1. Monetary Systems and Dollar Acceptance in Caribbean Countries

COUNTRY	OFFICIAL CURRENCY	EXCHANGE RATE (UNITS/US$)	ACCEPTANCE OF US DOLLARS IN TRADE	ACCEPTANCE OF US CHECKS AND CREDIT CARDS
Anguilla	Eastern Caribbean Dollar (EC)	$2.70EC	Wide. Hotels and restaurants. US Dollars given in change. Prices quoted in EC dollars.	Bank/travelers checks at some hotels restaurants; also major credit cards.
Antigua	Eastern Caribbean Dollar (EC)	$2.70EC	Almost everywhere.	Major credit cards at all major hotels, some shops and restaurants.
Aruba	Netherlands Antilles florin or guilder (NAf)	1.77NAf	Everywhere.	Major credit cards at hotels, restaurants, most shops.
Barbados	Barbados dollar	$2.00Barbados	Shops, hotels, restaurants.	Major credit cards at hotels and restaurants, some shops, with surcharge.
Belize	Belize dollar	$2.00Belize	Hotels, restaurants, some shops.	Major credit cards at hotels and restaurants, some shops.
Bonaire	Netherlands Antilles florin or guilder (NAf)	1.77NAf	Almost everywhere.	Major credit cards at most hotels, restaurants, and

COUNTRY	OFFICIAL CURRENCY	EXCHANGE RATE (UNITS/US$)	ACCEPTANCE OF US DOLLARS IN TRADE	ACCEPTANCE OF US CHECKS AND CREDIT CARDS
				shops.
British Virgin Islands	U.S. Dollar		Everywhere.	Major credit cards widely accepted.
Cayman Islands	Cayman dollar	$1.00CI	Hotels, restaurants, shops.	Major credit cards widely accepted. Prices quoted in both currencies.
Colombia (the Caribbean coast: Cartagena, Santa Marta, San Andrés)	Colombian peso	725CP	Widely accepted in hotels, shops, restaurants. Best exchange rate at banks.	Major credit cards accepted at major hotels, restaurants.
Curacao	Netherlands Antilles florin or guilder (NAf)	1.77NAf	Accepted almost everywhere.	Major credit cards accepted widely.
Dominica	Eastern Caribbean Dollar (EC)	$2.70EC	Accepted throughout the island, Bank exchange rate is best.	Major credit cards accepted at hotels and restaurants.
Dominican Republic	Dominican peso	12.50DP	Accepted at shops and hotels.	Major credit cards accepted at hotels, restaurants, larger stores. Also travelers' checks.
Guadeloupe	French franc	5NF	Accepted at some shops and hotels. Banks have best exchange rate.	Major credit cards accepted at hotels and restaurants. US dollar travelers' checks preferred.
Haiti	Haitian gourde. Shops quote prices in "Haitian dollars" equal to 5 gourdes.	5HG	Accepted almost everywhere.	Major credit cards accepted widely. Travelers' checks preferred.
Jamaica	Jamaican dollar (JDS)	$22JDS	Accepted very widely. Prices in tourist areas quoted in US dollars.	Major credit cards and travelers' checks widely accepted.
Martinique	French franc	5NF	Accepted widely. Francs best for taxis and restaurants. Banks have best	Major credit cards and travelers' checks preferred.

			exchange rates.	
Mexico (the Caribbean coast: Cancun, Cozumel, Isla Mujeres)	Mexican peso	3.39N$	Widely accepted. Cash payment sometimes avoids the VAT.	Credit cards and travelers' checks widely accepted.
Montserrat	Eastern Caribbean dollar (EC)	$2.70EC	Widely accepted at hotels, shops, restaurants.	Credit cards and travelers' checks accepted widely.
Puerto Rico	U. S. dollar		Everywhere.	Everywhere, as on the mainland US.
SabaNetherlands Antilles florin or guilder (NAf)1.77NAfAlmost everywhere.Credit cards and travelers' checks widely accepted. COUNTRY OFFICIAL CURRENCYEXCHANGE RATE (UNITS/US$)ACCEPTANCE OF US DOLLARS IN TRADEACCEPTANCE OF US CHECKS AND CREDIT CARDS St. Barthelemy	French franc	5NF	Accepted by stores and restaurants. No discount given for dollars.	Major credit cards accepted spottily. But travelers' checks widely accepted.
St. Kitts and Nevis	Eastern Caribbean dollar (EC)	$2.70EC	Bills (not coins) generally accepted in trade. EC$ best for small purchases.	
St. Lucia	Eastern Caribbean dollar (EC)	$2.70EC	Accepted widely by hotels, shops, and restaurants.	Major credit cards accepted at most hotels and restaurants, as are travelers' checks.
St. Martin/St. Maarten	French franc/Netherlands Antilles florin or guilder NAf)	5NF/1.77NAf	Dollars accepted everywhere. Some discounts for US dollars.	Major credit cards and travelers' checks widely accepted.
St. Vincent and the Grenadines	Eastern Caribbean dollar (EC)	$2.70EC	US dollars accepted in most hotels, shops, restaurants. Prices quoted in both currencies.	Major credit cards accepted by some major hotels and restaurants. Travelers' checks widely accepted.
Trinidad and Tobago	Trinidadian dollar (TT)	$4.25TT	Accepted everywhere. Use of $TT sometimes brings lower price.	
US Virgin Islands	U.S. dollar		Everywhere.	As on the mainland.
Venezuela (the	Venezuelan	170B	ATMs throughout	Major credit

Caribbean coast: Caracas, Puerto La Cruz, etc.)	bolivar	Caracas. Bolivar major currency.	cards and travelers' checks accepted at hotels, shops, and restaurants.

Source: Birnbaum's *Caribbean: 94*.

Many Belizeans hold cash balances at home, in the form of U.S. dollars, as a store of value, because many Belizeans take shopping trips to the United States, and because U.S. dollars are freely convertible into most other major currencies. In addition, money changers often give a better rate for the U.S. dollar. It is noteworthy that Belize is the former British Honduras, and that the U.S. dollar became its key currency before the country gained independence from the United Kingdom, in 1981. Although Belize is an active member of the British Commonwealth, English pounds are not generally accepted in the country. Even the money-changers at major border points of entry refuse to accept pounds. They are usually exchangeable only at banks.

The situation in Belize is not unique. Other countries around the Caribbean, particularly those Commonwealth countries having a thriving trade with the United States, exhibit the same wide use of the dollar. Its circulation economizes on the use of their own currency, provides needed foreign exchange, and facilitates the inflow of funds supporting economic growth.

IV. The Provision of U.S. Dollars for Dual Monetary Systems

In order for dual monetary systems to function, the United States must generate a money supply adequate to support all of the domestic financial needs of the country, and the needs of trade in countries using the dollar as an alternate currency. Those countries using the dollar for hand-to-hand trade, as well as for a store of value, will normally have a demand for currency, as well as for dollars in credit form.

The extent to which the dollar is now used by countries other than the United States has affected money supply growth and the composition of the money supply in the United States. According to recent analyses by Richard D. Porter of the Federal Reserve System, U.S. currency has steadily leaked from the domestic system over the past three decades. Porter's estimates suggest that, in 1970, 40 percent of all U. S. currency was circulating abroad. By 1993, approximately 70 percent of all currency was circulating outside the political boundaries of the United States.[19]

The analysis of changes in the U.S. money supply in recent decades suggests some tentative conclusions. As the data in Table 2 indicate, the currency component of the narrow money supply (M1) has dramatically increased as a percentage of the total, rising from 21.15 percent in 1963 to 28.48 percent in 1993. Since 1960, U. S. consumers and businesspersons have accepted and increased their use of various forms of electronic credit. Credit cards and debit cards are now routinely used for domestic purchases at grocery stores, gasoline stations, physicians' offices, and shops throughout the country, thus economizing on cash. It is even possible to pay some taxes and other government levies with credit cards. The availability of ATM facilities also permits a reduction in the average level of cash holdings. Given this trend, the share of cash in the total money supply would be expected to decline, rather than to rise.

Edgar L. Feige argues that the "cashless society," that was expected to arrive in the 1980's, failed of realization because of dual monetary systems around the world, all depending more or less upon the U. S. dollar, the growth of the domestic underground economy, and the growth of the international drug culture. He estimates that households in the United States hold only about 12 percent of the currency that has been issued and is putatively in circulation. Business firms hold another 10 percent, while the U.S.

underground economy holds 4 to 6 percent. He estimates that currency circulation outside the country is 45 to 58 percent of the total. The remaining 14 to 29 percent is "missing," that is, not identifiably in any of the other categories of currency holders.[20]

Table 2. United States: Money Supply and Currency Measures, 1963-1993

YEAR	MONEY SUPPLY (M1) ($BILLIONS)	CURRENCY SUPPLY ($BILLIONS)	CURRENCY AS PERCENT OF M1
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00

Source: Board of Governors of the Federal Reserve System, *Federal Reserve Bulletin*, various issues.

Porter's estimates suggest that, in 1970, $19.6 billion in U.S. currency was circulating abroad. By 1993, about $224.98 billion was in foreign hands, an increase of over elevenfold. Only a rising demand for currency by foreign users could have supported this expansion. It follows that the currency must be performing economic functions that are perceived as desirable and valuable by the demanding individuals and agencies. It is equally obvious that the monetary policy makers in the United States have accommodated this demand.

As the foregoing examples suggest, a dual monetary system can be a positive stimulus to economic growth. It can tie a country more closely to international trade flows, and facilitate the movement of hard currencies into and out of the economic system. Under ideal circumstances, it is also an adjunct to a country's own financial system, supporting it without overwhelming domestic economic policy. Unfortunately, a dual monetary system may also emerge out of economic unrest and dislocation, often without the overt support and approbation of the national government.

Pérez points out that domestic inflation is often a sufficient cause for currency substitution. When a country's domestic currency depreciates, citizens begin to hold the more stable convertible foreign currency as a store of value. If inflationary conditions worsen, the substituted currency (typically the U.S. dollar) begins to be used as a medium of exchange, and domestic prices may be quoted in that money of account. In the worst case, the domestic currency depreciates to the point that its circulation is very limited, and the substituted currency becomes the primary medium of exchange.[21]

Capital flight is also cited as a reason for currency substitution. When domestic funds flow to investment opportunities in other countries, foreign currency deposits may be encouraged by government to improve the net foreign exchange position of the financial system. The extent and nature of these encouraged inflows will depend upon a complex of factors, including exchange rates, domestic and foreign interest rates, and expectations concerning conditions in both the foreign exchange and the domestic financial markets.[22]

Dual monetary systems, embodying currency substitution, may also emerge for other reasons. Countries that depend upon tourism for a significant portion of their national income may find it in their interest to encourage the domestic acceptance of foreign hard currencies, thus making it easier for tourists to enjoy the goods and services they offer. The acceptance level of U.S. dollars in circum-Caribbean countries noted in Table 1 reflects, in almost every instance, the existence of a large tourist industry, regardless of the existence of other causes for the phenomenon. This argument may be applied, perhaps with lesser force, to a country that develops a large export-import sector. Domestic deposits of foreign currency may be desirable to facilitate both exchange transactions and balance of payments adjustments.

Similarly, political instability may spur the holding and use of convertible foreign currencies. Uncertainty about the domestic currency and financial system, regardless of the level of domestic inflation and the state of the balance of payments, may be enough to stimulate currency substitution.

It appears that a dual monetary system may emerge for a variety of reasons, and may exert a combination of favorable and unfavorable effects on the domestic economy. The mix of impacts will depend upon the specific characteristics of the situation. It is clear that such systems do exist and function in many western hemisphere countries at the present time. It is also clear, as Pérez notes, that, once currency substitution passes a certain threshold level in a country, the process is generally irreversible.[23]

V. Formal and Informal Dual Monetary Systems as Engines of Growth

When the transition in Cuba occurs, the prolonged process of transforming a centrally-planned economy into a market-oriented state will require extensive structural changes and massive infusions of funds. Both political stability and macroeconomic stability are highly desirable, if not necessary, conditions for this period of change. Since "dollarization" of the Cuban economy has already taken place, essentially legalizing an already existent informal dual monetary system, it now becomes appropriate to consider whether that system should be maintained during the transition, or whether it should be altered, the better to accommodate economic growth.[24]

Following an earlier proposal by Moreno, Sanguinetty and Moreno have advocated the adoption of a formal dual monetary system by the Cuban government during the transition. Although both the U.S. dollar and the Cuban peso would be accorded unlimited legal tender status, the exchange rate between the two currencies would be permitted to fluctuate, according to market conditions. In essence, Sanguinetty and Moreno argue, there would be two parallel economic systems. The historically-established system, based upon centralization of power and socialized resources, revolves around and utilizes the peso. It is the system that must be transformed or eliminated. The emerging market-oriented system would be associated with the U.S. dollar. It is the system that would attract and mobilize the

funds required for the transformation and growth of the Cuban economy.[25]

Sanguinetty and Moreno list specific disadvantages and advantages for the system. The disadvantages of monetizing the dollar include (1) limitations on the flexibility of policymakers to respond quickly to contingencies, (2) increased vulnerability to monetary policy decisions in the United States, and (3) possible injury to national pride at a very critical time. The advantages include (1) limitations on the power of Cuban policy-makers to mismanage the economy, (2) clear evidence to the Cuban population that there are two economic systems on the island, one requiring dismantling, the other requiring encouragement, and (3) the development of a mechanism to reallocate resources, especially labor, from the peso economy to the dollar economy. This last advantage would presumably mitigate or eliminate so-called "shock therapy."

This proposal has the implicit goal of tying the Cuban economy to the international market through the use of the U.S. dollar in daily life. The major problem with this proposal is the continued depreciation of the peso as the transition occurs. In dual circulation, the U.S. dollar will drive the peso out of circulation, as the peso loses its ability to serve as a medium of exchange and, particularly, as a store of value. Economic agents in Cuba will ultimately realize that holding pesos is irrational, and will join in the wholesale flight to the dollar. At this point, the Cuban monetary system becomes an adjunct to the U.S. economy, similar in many ways to the economy of Panama. The disappearance of the peso from circulation also signals a mixed bag of benefits and costs for Cuban policy makers. Tollefson sums up the situation for dollar-dominated Panama as follows:

In a sense, Panama could not have a monetary policy, because it lacked the instruments to implement such a policy, such as money creation and exchange-rate manipulation. In effect, Panama's money supply was determined by the balance of payments, by movements in interest rates, and by the United States, which controlled the number of dollars available for the country's international transactions.

Panama's monetary system has benefitted the country in numerous ways. The country has enjoyed almost automatic monetary and price stability. International transactions have been facilitated by the use of the United States dollar. No short-term transfer problems are associated with the balance of payments. The foreign exchange constraint felt by most developing countries has been obviated by the dollars circulating in the economy and the ability to borrow.[26]

In short, some elements of stability can be introduced into the Cuban economy, if the transitional government is willing to surrender some (perhaps a large part) of its sovereignty to the United States. These are among the points made by Moreno in his earlier paper. Given the acceptance of such a relationship, the peso could possibly be reintroduced later, at a new and realistic exchange rate, just as occurred in 1915. Whether the peso would have any more economic importance than the Panamanian balboa is doubtful.

A more basic question now arises: Can a dollar-denominated economy overcome all of the problems suffered by Cuba's economy? The answer must be negative. The fall of the peso is the result of fundamental economic problems, not the lack of a viable medium of exchange or a store of value. These causes, which are embodied in the capital goods and the technology of the peso economy, are the ones that must be addressed. A decade or more of restructuring, realignment, and recovery will face the transitional government. Cuba must find its own way into the future, building on its strengths and shoring up its weaknesses.

It should also be pointed out that when Panama was born, the country did not have to suffer an almost complete restructuring to develop market-oriented institutions. The country did not have to be reintegrated into the international trading system. And the country did not have to find new answers to

the basic economic questions of "What? How? and For whom?". Pérez also points out that the dollarized Panamanian economy does not provide absolute security against the mismanagement of domestic fiscal policy. During the 1970's and early 1980's the Panamanian government adopted a strongly expansionist fiscal policy, which ultimately led to balance of payments problems and an economic contraction.[27]

VI. Conclusions

The following conclusions are suggested by the foregoing analysis and discussion:

1. Informal dual monetary systems operate throughout the Western Hemisphere, using the U.S. dollar as the second or alternate currency. Particularly in tourism-oriented countries, the expanded circulating medium thus created fosters higher levels of trade and generally encourages economic growth, apart from any other effects it may have.

2. The expansion of the narrow money supply in the United States, as well as its composition (currency versus credit) is responsive to the demands of its users. The currency needs of hemispheric dual monetary systems have been met in the past, and should be met in the future. The interface of the U.S. bank credit and credit card systems with those of foreign countries also support foreign demands.

3. Those countries in which the U.S. dollar is not legal tender have the institutional capability to pursue their own fiscal and monetary policies, so as to optimize the operation of the dual monetary system. The Latin American country in which the dollar is legal tender (Panama) enjoys a measure of economic stability, but does not enjoy the ability to plan its own economic future (apart from the treaty negotiated in 1979).

4. Cuba currently enjoys an informal dual monetary system using the Cuban peso and the U.S. dollar. The system has operated, even under tight government constraints and an active U.S. embargo, to bring dollars into the economy. It is likely that the threshold level of system growth has been passed, so that elimination of the U.S. dollar is impossible.

5. If the transitional Cuban government decides to adopt a formal dual monetary system, giving the U.S. dollar legal tender status, the peso will ultimately (and quickly) disappear from circulation. At that point in time, the Cuban monetary system becomes very similar to the Panamanian monetary system. The ability of the Cuban transition government to formulate domestic monetary policy will be limited or virtually eliminated.

6. The decline in the peso reflects the extensive and continuing deterioration of the Cuban economy, not a complex of monetary ills. Economic restructuring, privatization, infrastructure rebuilding, and institutional reformation are the tasks required to give renewed strength to the peso.

7. An informal dual monetary system will facilitate funds flows during the transition, as well as a formal system would work. Investment flows from the United States and other developed nations will stream into Cuba, regardless of the legal status of the dollar, and probably regardless of the structure of the monetary system.

8. The disadvantages of the formal dual monetary system listed by Sanguinetty and Moreno are persuasive, particularly the point concerning national sovereignty and national pride at a critical growth juncture. The dollar should not become legal tender. Cubans should decide their own destiny. Cuba should not become another Panama.

The final observation paradoxically favors all points of view: If the transition government is unable to mount an effective rebuilding and restructuring program, and cannot move quickly toward a market-

oriented system, the peso will depreciate and ultimately disappear from circulation. It will disappear regardless of the institutional configurations of the monetary system, and will be replaced by the U.S. dollar. At that point, all arguments about the structure of the monetary system become moot.

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Footnotes for:
Dual Monetary Systems in the Western Hemisphere and the Cuban Transition

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[1] For a typical statement, see William A. McEachern, *Economics: A Contemporary Introduction*, third edition (Cincinnati: South-Western Publishing Co., 1994), pp. 282-290.

[2] Robert C. Puth, *American Economic History*, third edition (Fort Worth: The Dryden Press, 1993), pp. 87-90; Paul Studenski and Herman E. Krooss, *Financial History of the United States*, second edition (New York: McGraw-Hill Book Company, 1963), pp. 12-21. Back to Text

[3] Edwin Walter Kemmerer, *Money* (New York: The Macmillan Company, 1935), p. 83. Back to Text

[4] Gary M. Walton and Hugh Rockoff, *History of the American Economy*, sixth edition (San Diego: Harcourt Brace Jovanovich, 1990), p. 239. See also Studenski and Krooss, *Financial History of the United States*, p. 10. Back to Text

[5] Kemmerer, *Money*, pp. 88-91. Back to Text

[6] Kemmerer, *Money*, p. 96. Back to Text

[7] See C. L. Ramírez-Rojas, "Currency Substitution in Argentina, Mexico, and Uruguay," *International Monetary Fund Staff Papers* 32:4 (December, 1985), 629, for the cited definition. Also consider Carlos Rodríguez, "Money and Credit Under Currency Substitution," *International Monetary Fund Staff Papers* 40:2 (June, 1993), 414-426. Back to Text

[8] Kemmerer, *Money*, pp. 328-333, 335-336, and *passim*; Puth, *American Economic History*, pp. 230-233. During two wartime periods, 1814-1817 and 1862-1878, the country was actually on a fiduciary paper money standard. Back to Text

[9] Kemmerer, *Money*, pp. 336-340. See also Dewey, *Financial History of the United States* (New York: Longmans, Green and Co., 1920), pp. 210-212. Back to Text

[10] Kemmerer, *Money*, p. 343. Back to Text

[11] Kemmerer, *Money*, pp. 339-357. Back to Text

[12] John M. Willem, Jr., *The United States Trade Dollar* (New York: Privately Printed, 1959), pp. 25-28. Back to Text

[13] Willem, *The United States Trade Dollar*, pp. 25-53, 135-166. Back to Text

[14] Milton Friedman, "Bimetallism Revisited," *The Journal of Economic Perspectives* 4:4 (Fall, 1990), 85-104; and "The Crime of 1873," *Journal of Political Economy* 98:6 (December, 1990), 1159-1194. Back to Text

[15] Scott D. Tollefson, "Economy," in *Panama: A Country Study*, fourth edition (Washington, D. C.: U. S. Government Printing Office, 1989), p. 133. Back to Text

[16] Brian W. Blouet and Olwyn M. Blouet, *Latin America and the Caribbean: A Systematic and*

Regional Survey, second edition (New York: John Wiley and Sons, Inc., 1993), pp. 280-281; Jan Knippers Black and Edmundo Flores, "Historical Setting," in *Panama: A Country Study*, fourth edition (Washington, D.C.: U.S. Government Printing Office, 1989), pp. 20-32.

[17] Kemmerer, *Money*, p. 96. Back to Text

[18] Central Bank of Belize, *Eleventh Annual Report and Accounts: 1992* (Belize City: Central Bank of Belize, 1993). Back to Text

[19] Porter's observations are presented in his unpublished paper, "Estimates of Foreign Holdings of Currency -- An Approach Based on Relative Cross-Country Seasonal Variations," prepared for the Board of Governors of the Federal Reserve System in September, 1993. See also his article, "Foreign Holdings of US Currency," *International Economic Insights*, IV:6 (November/December, 1993), 5; and Richard S. Porter and Amanda S. Bayer, "A Monetary Perspective on Underground Economic Activity in the United States," *Federal Reserve Bulletin*, 70:3 (March, 1984), 177-190. Back to Text

[20] Edgar L. Feige, "The Myth of the Cashless Society," *International Economic Insights*, IV:6 (November/December, 1993), 2-4. See also Robert B. Avery, Gregory E. Ellenhausen, Arthur B. Kennickell, and Paul A. Spindt, "Change in the Use of Transactions Accounts and Cash from 1984 to 1986," *Federal Reserve Bulletin*, 73:3 (March, 1987), 179-196.

[21] See Lorenzo L. Pérez, "The Implications of Currency Substitution Experiences in Latin America and in Europe for Cuba," paper presented at the Fourth Annual Meeting of the Association for the Study of the Cuban Economy (ASCE), Miami, Florida, August 11-13, 1994, pp. 4-6.

[22] *Ibid*. Back to Text

[23] Pérez, "Implications . . .", p. 6. Back to Text

[24] Note that the Castro administration appeared to amend its earlier position in May, 1994, when it proposed monetary reform and reported that it would increase its control over freely convertible currencies in the country. See Pérez, "Implications . . .," p. 4. Back to Text

[25] Jorge A. Sanguinetty and Juan Luis Moreno Villalaz, "Monetary Dualism as an Instrument Towards a Market Economy: The Cuban Case," a paper presented at the annual meeting of the American Economic Association, Boston, January 3-5, 1994. Moreno's earlier paper, "Una política o un sistema monetario óptimo," *Cuba in Transition*, Volume 2 (Miami: Association for the Study of the Cuban Economy, 1992), pp. 221-240, argued the adoption of the Panamanian system, with the dollar as the official currency of Cuba. Moreno argues that the Panamanian system, with an endogenous money supply, is "optimal in terms of stability, growth, adjustment to external shocks, and in implementing a market economy." Back to Text

[26] Tollefson, "The Economy," p. 133. Back to Text

[27] Pérez, *op. cit.*, p. 16. Back to Text