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10-yr T-Note: 3.24%	DJIA: 26,191.22	NASDAQ: 7,530.88	S&P 500: 2,806.83	S&P 500 Undervalued: 92.1%

THE EMERGING INTERNATIONAL CURRENCY CRISIS: CURRENCY BOARDS CAN STAVE IT OFF

By Brian Domitrovic, Ph.D.[1]

Summary

- Currency boards have attracted increasing interest in recent years—and months—because signs of another international monetary crisis are beginning to gather.
- The prevailing monetary *system* does not comport with the actual monetary *order* of the world. Currency boards can, on all important criteria, close the currently yawning gap between the world monetary system and its order.
- The only risks entailed in currency boards are those associated with the great success and prosperity that they bring without fail.

We live in a central-banking, flexible-exchange-rate world, but for a notable exception: currency boards. A currency board is a formal monetary institution on the part of a country (or a non-national currency issuer) with two major characteristics. The first is that a currency board issues its currency only on demand for it, at a fixed rate, in a specified unit of foreign exchange. The second is that a currency board holds in reserve a quantity of that foreign exchange equal to or greater than its total currency float—its reserves are 100+ percent. There is no central bank involvement, the exchange rate is fixed, and the entire issue is collateralized. These classical aspects of the monetary order persist in contemporary arrangements wherever there is a currency board.

Currency boards operate in various places around the globe today, most prominently in Hong Kong. They arose under the British Empire, faded with decolonization, and then enjoyed a second life not long after the demise, in the 1970s, of fixed rates and the dollar-gold peg of the Bretton Woods era. As currency instability stalks the world today, in harrowing cases ranging from Turkey and Iran to Argentina, Venezuela, India, and Brazil, it is only natural to renew interest in this longstanding success story in monetary affairs.

I. How Currency Boards Operate

A country (or region) with a currency board issues new currency in one instance and one instance only: on the presentation of specified foreign exchange for that currency at a fixed rate. For example, a country with a dollar-based currency board supplies its own currency exclusively to those wishing to exchange dollars for the domestic issue. The rate can be whatever is respectful of the market just prior to the formation of the currency board and remains fixed. If holders of currencies other than dollars wish to acquire the currency-board country's issue, they purchase dollars first with their foreign exchange and then present the dollars to the currency board for that issue. If there is heightened domestic demand for currency, the investment opportunities within the country will attract foreign capital.

A currency board reduces all monetary issuance to real, demonstrated demand for money. A currency board never issues domestic currency without a commensurate increase in its holdings of the reserve currency. If an individual or a corporation wants the country's currency, that individual or entity must buy it with the specified exchange medium. There is no monetary creation through the changing of bank reserve requirements, the lowering of central-bank interest rates, the printing of money to finance government bonds, the adding of zeros to denominations, and so forth. The demand brought by holders of foreign exchange determines the domestic money supply in its entirety. If a central bank already exists in a country starting a currency board, the functions of the bank narrow to those of an inspector.

The next feature of a currency board is its reserve account. A currency board keeps in reserve an amount of foreign exchange in the defined reserve currency equal to all outstanding domestic currency. The reserve requirement is 100%, or even slightly more. For example, if the monetary float of a currency-board country is equal to $100 billion, and the exchange medium is the dollar, then the currency board holds in reserve at least $100 billion in high-quality liquid form (such as United States Treasury bonds or cash). In this way, a currency board ensures that the entire monetary issuance of the country it represents corresponds to the market demand responsible for creating that currency in the first place. There can never be a successful

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run on a currency board country's currency, because the board can, at any moment, buy all domestic money with its reserves at the fixed rate.

It may appear daunting for a country to launch upon the path of a currency board. If a country has been profligately creating money, running down its reserves, and sponsoring a weak currency for which there is little real demand, it may wonder how it could construct a currency board. The procedures for establishing a currency board are, nonetheless, viable in almost every case.

For a country to acquire the required amount of the specified unit of foreign exchange to begin a currency board, its point of departure is current reserves. It uses these to purchase as many units as possible of the foreign-exchange base currency (such as the dollar). It then compares that total at the current exchange rate with the domestic issue outstanding. If the difference is negative, it sells various national assets until it can acquire sufficient foreign exchange with which to collateralize its monetary float at the current exchange rate. When this is accomplished, the exchange rate is fixed at the current level, and the currency board begins.

In practice, it does not require wholesale sales of national assets to fund the necessary currency-board reserves. When a country makes a sincere effort to establish a currency board, especially after a period of prodigality, that country's currency appreciates as global demanders of money bid up the price of a currency that once was lost but now is found. The mere communication of a good-faith effort to establish a currency board can be sufficient to render foreign exchange reserves equal to the domestic currency float. When this occurs, the exchange rate is fixed, and the currency board is ready to operate on its stated terms.

These procedures pertain to countries that are not major monetary hegemons. For the biggest countries or regions, those that sponsor the "key currencies" (in the language of the Bretton Woods era) such as the dollar or euro, currency boards would have different pertinent characteristics. Instead of selling national assets to build a reserve fund equal to the currency float, the currency board would begin by issuing no new currency except on presentation of gold or a high-quality gold-hedged instrument. All deposits to the key country's reserves would be in this form. As for current reserves, they would be sold over time in exchange for gold or gold-hedged instruments. In due course, all reserves would be in such media. As in the smaller country case, a key-currency monetary issuer would see its currency appreciate against gold, as the sincere effort is made to establish a currency board. On establishment, the gold/key-currency rate becomes fixed and the central bank cedes all monetary-creation activities to the currency board.[2]

The differences between the regional and key-currency area currency boards derive from several realities. The first is that the aspiration of the populations of countries with regional currencies is to have a currency that is as useful and reliable as a major currency such as the dollar. Hence the reserve asset is a key currency. A second matter is that the price of gold against any regional currency is largely a function of the key-currency price of gold. Therefore, regional-country currency boards make their reserve asset a key currency. This is true even if (as today) there is no key currency commitment to gold.

A key-currency-area currency board can define its medium of exchange as gold because the worldwide one market price of gold in any currency correlates closely with the key-currency price. A key currency can "set" the price of gold, as indeed the United States did at $35 per ounce for four decades after 1934. As for supplies of gold and gold-hedged instruments, the latter have no limit outside of the market demand for them. A key-currency-area currency board would increase the demand for gold-hedged instruments. Various providers would compete to satisfy the demand.

Economics Nobelist Robert A. Mundell once remarked that the euro is the ghost of the Deutschmark. In a similar way, a comprehensive establishment of currency boards might suggest the ghost of Bretton Woods. Regional countries would fix to major issues of foreign exchange, as they did to the dollar under Bretton Woods. Key countries would fix to gold, as the dollar did under Bretton Woods.[3]

The difference is that under currency boards, regional country reserves would not take the form, as they have for many decades now, of being a stabilization fund that can rescue an exchange rate when it sags. Rather, reserves would represent in whole the collateral asset of the domestic currency float. The link between monetary supply and monetary demand would be real and empirical. There would be no scenario for the exchange rate to change, in that an operational currency board would create an arbitrage opportunity if ever the market price of a currency deviated from the currency-board exchange rate.

Furthermore, any worries over the key-currency area gold stock—such things felled Bretton Woods—have no basis with currency boards. All new money issuance is a function of the presentation of gold and gold-hedged instruments, the latter of which have no hard supply limit. All currencies, in particular key currencies, have certain monetary functions (such as

[2] An elaboration of a gold-based currency board is Steve H. Hanke, "A Gold-Based Currency Board, Please," *Cato Institute*. https://www.cato.org/publications/commentary/goldbased-currency-board-please

[3] Robert A. Mundell, "A Reconsideration of the Twentieth Century," Prize Lecture, Dec. 8, 1999, in Nobel Lectures, Economics, 1996-2000, ed. Torsten Persson (Singapore: World Scientific Publishing Co., 2003), 240.

transactional use) that are far more efficient than gold's. The desire of the public to hold gold against key currencies, and thus to demand gold and gold-hedged instruments from a key-currency currency board, would be a function of global confidence in the key currency and in the economic prospects of its transactions area.

Therefore an implicit corollary of currency boards is that the areas they superintend should have unhindered economies. Excessive regulations, high tax rates, a large public sector, and capital and trade restrictions will chase away demand for a given place's currency. A regional country with a currency board would see, in this context, its reserves dwindle along with its domestic money supply. Likewise a key-currency country or region with a currency board, in this same context, would see demand for gold instruments in excess of reserves, an appreciation in the market price of gold, and perhaps the abandonment of its currency as the reserve asset in regional currency boards. There is strong incentive in a currency board system, given market watchfulness at every step, for governmental impositions upon organic economic and market processes to remain limited.

Hence a currency board contains within it both aspects of the classical policy mix of supply-side economics championed by Mundell. There is monetary restraint in the form of all monetary supply corresponding to real monetary demand, in fact empirically deriving from it. And there is fiscal ease in terms of the state permitting the productive private sector to explore the full extent of its potential realm. In terms of workability and operations, there is little that needs to be done outside of a sincere commitment to make a currency board happen.[4]

II. A Record of Success

Professor Steve H. Hanke of Johns Hopkins University is the principal exponent of currency boards within the economics profession. His extensive scholarly work in the area is the basis for our current understanding of this institution, and he has advised any number of countries that have opted for currency boards since the 1980s. In his canvass of the history of currency boards, he has found that in every case, without exception, the currency board has succeeded according to clear and widely accepted metrics.[5]

Currency boards were commonplace in the late nineteenth and early twentieth centuries. Then they were largely displaced by central banks, especially after World War II. The chief difference among many, between currency boards and central banks, is that the latter conducts discretionary monetary policy, which is impossible under a currency board. The creation of the International Monetary Fund (IMF) in 1944 as a multinational exchange-rate stabilization fund provided cover for central banks to explore monetary discretion at the risk of harming the exchange rate. With IMF credit facilities available, the American abandonment of the dollar-gold link in 1971 led to an era of monetary experimentation that coincided with global stagflation.

In the 1990s, currency boards were to be found in several areas of the former imperial realm, as they also began in new places such as Argentina and Eastern Europe (after the collapse of that region's hegemon, the Soviet Union). In Hanke's analysis, this period of currency-board renewal was one of pronounced success. In Argentina, a seven-figure inflation rate pre-currency board became single-digit and GDP growth swung from negative to positive. In Estonia, the same results were obtained from an inflation-rate base in the four figures. The story was similar in Lithuania and Bulgaria. In Bosnia and Herzegovina, a currency board brought an end to a steep deflation in favor of nil inflation and strong GDP growth.

[4] Robert A. Mundell, "The Dollar and the Policy Mix: 1971," Essays in International Finance 85 (May 1971), 24.

[5] Steve H. Hanke, "Currency Boards," Annals of the American Academy of Political and Social Science, 579 (Jan., 2002), pp. 87-105. For Hanke's views on contemporary currency boards and their approximations, see his various works at https://www.cato.org/research/troubled-currencies

In aggregate, the historical performance of modern currency boards is summarized in this table of Hanke's:

CURRENCY BOARD VERSUS CENTRAL BANK PERFORMANCES (NINETY-EIGHT DEVELOPING COUNTRIES, 1950-1993)

System	GDP Growth Rate (%)	Annual Average Inflation (%)	Fiscal Deficit (% of GDP)
Currency board	2.6 (535)	7.0 (523)	2.2 (338)
Central bank	1.7 (2,694)	33.8 (2,663)	3.7 (1,769)

SOURCE: Based on Hanke (1999).
NOTE: Number of observations in parentheses.

CURRENCY BOARD VERSUS CENTRAL BANK PERFORMANCES (MEMBERS OF THE INTERNATIONAL MONETARY FUND, 1970-1996)

System	Number of Observations	GDP Growth Rate (%)	Annual Average Inflation (%)	Fiscal Deficit (% of GDP)
Currency board	115	3.2	5.6	2.8
Central bank	695	1.6	48.3	4.4

Source: Steve Hanke

As Hanke's data indicate, currency board-countries can up to double the average GDP growth rate of central-bank countries, harness runaway inflation, and nearly halve government deficits.[6]

The most luminously successful currency board of recent experience is Hong Kong's. In 1983, after a period of floating characteristic of the stagflation period, the Hong Kong dollar became fixed to the U.S. dollar through a currency board. The rate was just below 8-to-1. Hong Kong flourished supremely as its currency became one of the most traded in the world (and its economy the envy of the world). Hong Kong's currency-board fix to the U.S. dollar surely provided inspiration to the People's Republic when it decided in 1994 to peg to the dollar, if not by way of a currency board but a reserve-laden exchange-rate stabilization fund.

Hong Kong's familiarity with currency boards had developed in its long history under British dominion. Currency board systems were common across the points of the British Empire in the late nineteenth and early twentieth centuries. As Hanke has observed, "currency boards have existed in about seventy countries. The first was installed in the British Indian Ocean colony of Mauritius in 1849. By the 1930s, they were widespread in British colonies in Africa, Asia, the Caribbean, and the Pacific islands. Currency boards have also existed in a number of independent countries and city-states, such as Danzig [briefly a free city after the Treaty of Versailles] and Singapore." A further example Hanke uncovered involved John Maynard Keynes—Keynes was the one who designed the currency board used during the allied occupation of North Russia from 1918-1920. This region became a unique island of monetary stability in revolutionary Russia.

The reputation of currency boards within British economics is typified in a passage Hanke quotes of the economic Nobelist John Hicks. As Hanke writes, "The currency board idea originated in Britain in the early 1800s. A notable proponent was David Ricardo. Sir John Hicks [in 1967] made this perfectly clear when he wrote, 'On strict Ricardian principles, there should have been no need for Central Banks. A Currency Board, working on a rule, should have been enough.'"[7]

One notable development that accompanies the operations of currency boards, invariably successful as they are, is the accumulation of often very large quantities of the foreign-exchange reserve unit. After its institution of a currency board in 1991, Argentina saw its reserves grow eight-fold, to over $25 billion, as foreign investment—and thus the demand for currency-board transactions—boomed. The emergence of a large stash of reserves, while providing the collateral of the domestic money supply, can also represent a temptation. Here is a lode of hard currency that can catch the eye of the corrupt or the undisciplined.

As Argentina flourished under its currency board, its public-sector debt steadily decreased through 1997 when it, like the United States, ran an historic surplus. Over the next two years, the debt, along with government spending, went up to currency-board-era highs. The spending and deficits chased away foreign investment, as did a forthcoming tax increase, the currency

[6] Hanke, "Currency Boards," 92.
[7] Hanke, "Currency Boards," 88-89.

board lacked for business, unemployment soared, and demands for change arose from the street. Argentina increased its monetary float without reference to dollar demand, at last abandoning all vestiges of the currency board in January 2002. It has had floating rates and a full-service central bank since.[8]

Argentina's arc of pronounced success and then sharp difficulty in its 11-year currency-board run, 1991-2002, is instructive about a central characteristic of modern currency boards. A country with a successful currency board will pile up so much hard foreign exchange that it might get the impression that it can start spending more and running bigger deficits. After all, it has accumulated a large amount of good cash. In the contemporary period, currency boards can contain the seeds of their own destruction.

A major reason currency boards work is that they compel governments to keep their displacement of the private, real economy small. This attracts foreign investment and with it, units of the reserve currency. But as this success unfolds, only the discipline of the country (unless it has uncommonly strong legal strictures) prevents it from tapping or borrowing on the reserve. At the outset, necessity demands discipline to make the currency board work. In maturity, will and commitment are required to keep the currency board, and the economy, reaching for success after success.[9]

Argentina's experience suggests that the original imperial structure was a vital, rather than an auxiliary or coincidental, aspect of currency boards during their great season in the sun under the British Empire. It suggests that for currency boards to continue to flourish and to extend their reach in the future, certain specific features of the colonial currency-board system need to be recaptured in our non-colonial world. It remains telling that reserves collected under a currency board in the British Empire were not apt to be raided by a local potentate, on the understanding that there was a stern superintending authority in London. This sort of implied sovereignty has no like in the world today. It could be reconstructed to the benefit of all parties involved if the major currency issuers—those supplying the currency-board reserves—dedicated themselves to looking after the system.

The pattern of currency boards arising in the late imperial era, and then giving way to institutions of central banking in the era of decolonization, was more than a simple correlation. Likewise, the experience of central banking after 1950 (with the IMF as a stabilization-fund backstop), which became difficult experience given stagflation in the 1970s and the debt-service crisis in the 1980s, is surely one of the things that prompted, in the 1990s, the interest in getting reacquainted with that institution of the discarded imperial order, currency boards. What was missing in the return of currency boards was an international structure that functioned to see currency boards into perpetuity.

III. Operational Criticisms

Criticisms of currency boards generally focus on the ways in which they immobilize central banks. Given a currency board, a central bank does not enter into monetary creation with preferred customers. There are no discount rates and federal funds rates, as in the American case. There is no "ceiling support" of the exchange rate in which the central bank creates new domestic money to buy foreign exchange to prevent the national issue from appreciating. And reserves, accumulated only in the one major currency up to over 100 percent of the domestic monetary float, are not diversified.

In response to such criticisms, a currency-board country can contend that since it has already affirmatively chosen the route of a fixed exchange rate, it need not worry about leaving its central bank bereft of tools to alter the value of the currency. As for the diversification of reserves, it is a problem to the extent that the reserve asset is unstable. This is probably the reason China has preferred an exchange-rate stabilization fund over a currency board like Hong Kong's. China has hedged its enormous dollar reserves with large quantities of alternative units of foreign exchange as well as gold.

As for a lender-of-last-resort—the provider of discount and funds rates in today's central-banking universe—it has to have credit facilities. When a central bank meets its demise given a currency board, such facilities can be created separately and privately. Historically they were created separately and privately in the United States, to excellent economic effect, in the city-banking clearinghouses in the era prior to the founding of the Federal Reserve in 1913.

Another criticism of currency boards is that the reserve currency can gyrate in value, jeopardizing the domestic economy. There is a grain of truth in this concern. In the late 1990s, to take an acute example, the dollar appreciated sharply, rising 35 percent against gold, lifting the Argentine peso (and other dollar-based currencies including Hong Kong's and China's) with it. Whatever Argentina's contribution to its crisis in the form of overdone spending, deficits, and taxes, it became difficult for holders of non-dollar foreign exchange to invest in the country, because the dollar's exchange rate was soaring.

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[8] For a discussion of deviations from currency boards, see Steve H. Hanke, "On Dollarization and Currency Boards: Error and Deception," Policy Reform 5, No. 4 (2002).

[9] Steve Hanke and John Greenwood have noted Argentina's unfortunate tendency to raid dollar reserves once a currency board attracts them. "The incestuous relationship between the federal government and the central bank shows up on the asset side of the balance sheet….The largest asset class is credit to the government—the result of the Kirchner government's theft of the central bank's foreign-exchange reserves for domestic spending and their replacement with peso-denominated government debt." Steve H. Hanke and John Greenwood, "The Dollar, Not the IMF, Can Save Argentina," *The Wall Street Journal*, Sept. 26, 2018. https://www.wsj.com/articles/the-dollar-not-the-imf-can-save-argentina-1538002829

Another case came in the latter half of 2008, when in the space of months the dollar gained 25 percent on the euro. An appreciation of the dollar of this magnitude and quickness can lead to the shunning of all other units of foreign exchange (including the euro and even gold). A major foreign exchange or gold holder wishing to make an investment in a dollar-defined currency-board country, in a scenario like that of late 2008, might wait for the crisis to lift.

Whatever the difficulties brought by these experiences of rising exchange rates, they also correspond to periods of minimal inflation in places highly prone to inflation otherwise, and to soaring terms of trade. Furthermore, these irregular events could be warded off—by the further spread of currency boards. The more currency boards, the less fluctuations in a common reserve unit would shut out foreign investment. An important part of the resolution to this problem would be a commitment on the part of major currencies not to fluctuate against each other—for which Mundell has for years been calling.

This result would come to pass if even one major country (or region like the eurozone) committed itself to a gold-defined currency board. Any major currency that undertook this reform would immediately become the global key currency. This would probably inspire the other major currencies to join. Furthermore, a notable and salutary difference between gold-based and foreign-exchange-based currency boards would become apparent. Because of its fundamental scarcity, gold would not accumulate to unheard-of levels in the reserves of the key currencies, as foreign exchange does in regional currency boards.

Rather, gold-exchangeable instruments would accumulate. Any raid on these instruments would prompt their values to plunge, defeating the purpose of any raid. Even as formal restrictions, taking advantage of tight legal environments in the key-currency areas, would play their role in preventing such abuse of a gold currency board, the more important fact would be that key-currency reserves could not be abused without degrading the reserve asset itself.

IV. Currency Boards and the Deteriorating Monetary System

Currency boards have attracted increasing interest in recent years—and months—because the signs of another international monetary crisis are beginning to gather. These signs are cropping up everywhere—in peripheral regions, in the major economies, and in cyberspace. The roll call is getting long and detailed, implying that action has to be taken to stave off an unpleasant pan-economic experience that is under preparation.

Venezuela's currency has collapsed, Iran's nearly has, and Turkey's and Argentina's have fallen precipitously. Not so long ago, the economies behind these currencies were close to first-world levels of development. As for the euro, inordinate financial assistance had to come the way of Greece after the 2008 financial implosion to keep that country within the common currency's fold. Then the United Kingdom detached itself from the eurozone, stifling any aspiration the euro may have had to encroach on the domain of the pound sterling. Meanwhile, a new monetary alternative, the cryptocurrency, has emerged globally and proven resilient. Whatever the vicissitudes in the crypto market, Bitcoin has found a redoubtable counterpart in Ethereum, and the total market capitalization of distributed ledger technology "tokens" holds above $100 billion.[10]

There is something distinctly unsettled in the world currency and monetary system, such as it is. There are currency disruptions and devaluations at various places across the globe, the euro continues to struggle to win over its numerous skeptics, and the crypto phenomenon suggests an evolutionary push to overturn, at some point in the technology-infused future, the whole regime of state-sponsored money. Only the dollar has been generally exempt from the distemper. Lately it has been strong against standard measures such as the Chinese RMB and gold, if not against oil and its major competitors, the euro and the yen. Under the tenure of Federal Reserve chair Janet Yellen (2014-18), the dollar was actually stable. It moved in a 6-percent band versus gold (with gold high near $1,400 per ounce), the narrowest range over a Fed chairmanship since the United States ended convertibility in 1971.

Historically, currency crises show signs of formation for about a decade, a decade of relative economic prosperity, before culminating in a substantial economic crisis. In the 1920s, the world vacillated on reinstituting the international gold standard as an economic resurgence took hold in the new leading nation, the United States. The vacillation continued into the 1930s, and on came the Great Depression. In the 1960s, foreign countries progressively challenged the United States' ability to guarantee the dollar in gold as economic growth increased. In the absence of final policy, the Bretton Woods system of fixed exchange rates and a dollar based in gold evaporated from 1971-73, and nine years of stagflation ensued.

Gathering currency crises appear to be the likes of a warning light on a car. They indicate that the monetary "system"—the official arrangements regarding the issuance and exchange of currencies—has begun to diverge from the monetary "order"—the actual monetary realities that prevail in the current economic setting. Robert Mundell first posed the distinction between a monetary system and the underlying monetary order in the 1970s. Per Mundell, the monetary order is the sum of aspirations, mores, and realities in a given economy that the monetary system must respect and follow, even if unconsciously, if that economy is to function well. If a particular monetary system is not respectful of the implicit monetary order, in an economy, a

[10] For cryptocurrency market capitalizations, see https://coinmarketcap.com/

real crisis will ensue in the interest of resolving the difference. The signals of crisis that have cropped up globally in recent years suggest that current global monetary arrangements—the system—must be diverging from the underlying implicit order.[11]

In the first place, there is this central attribute of the modern monetary system: floating exchange rates. There is not substantial evidence that any more than limited constituencies have ever favored a permanent regime of floating rates. These limited constituencies include governments bent on devaluing their own debt payments, currency-traders, and uncompetitive exporters. Generally the majority of the population in any country, prefers a currency that holds its value in the obvious practical ways, including against goods and services domestically offered for sale and foreign exchange. It would appear, in short, that the monetary order implies fixed rates of exchange, yet the monetary system is arranged for floating rates.

A second mark of the current monetary system is its bureaucratic thickness. Central banks typically are staffed to the gills and have the following powers: to determine the level of, and to hold, required reserves of virtually all banks in the country; to be the chief banking regulator; to have the (often exercised) option to buy and sell a variety of financial assets, including private ones; and to offer unlimited lender-of-last resort funds at emergency rates. In addition, Treasury and Commerce departments, along with international entities such as the eurozone and the International Monetary Fund, have facilities to influence exchange rates and the management of currencies. It is again unclear if any of this bureaucratic thickening corresponds to a widespread preference within the population that there be such a thing.

A third central characteristic of the current monetary system is its lack of definition, including any aspiration to have a definition. Currencies, in general, do not strive to define themselves in gold or against a basket of goods and services, aside from some talk of inflation-targeting. Monetary authorities rarely eschew discretion in favor of rules. Exceptions are found in those currencies prone to runs that fix themselves to major fiat currencies, for example the Chinese RMB and its fix to the dollar. As the counter-examples suggest, people maintain skepticism about the lack of definition in currencies, withholding it only from major monetary hegemons. Indeed, currency definition is now required in an economy (China's) that is one of the largest in the world.

Overall, the monetary order deriving from the mass of monetary assumptions and preferences on the part of the global public appears to be quite at variance with the accompanying monetary system. It appears that the public wants and expects money to be stable in value, not manipulated or controlled by inside players, and defined in widely acceptable and commonsense ways. The monetary system, nonetheless, exhibits few characteristics corresponding to these expectations.

It is likely that a real economic crisis will come, as in the past, if a disjunction of this nature is not remedied. As the noted *Wall Street Journal* editor Robert L. Bartley once observed, regarding the jibe that the stock market has predicted nine out of the past five recessions, "in the other four Washington got the message and mended its ways in time." The several currency crises and near-crises in the world today present an opportunity. This is to pursue a reform to bring about a monetary system that comports with the monetary order.[12]

Major projects of monetary reform have the reputation, not entirely justified, of being long and arduous. This was perhaps so for the last full monetary reform worthy of the name, Bretton Woods. Here was a long global currency meeting under the cover of world war in 1944 in which dozens of countries at last agreed to terms dictated by the leading hegemon, the United States. The imperiousness associated with Bretton Woods should not lead us to believe that substantial monetary reform must be big and historic and involve strenuous diplomatic effort and superpower insistence applied over a long span of time.

Demonstrably, by calling on the method of the currency board, monetary reform can be undertaken by any currency issuer easily and quickly. If, in addition, major currency issuers such as the United States or the eurozone themselves committed to a currency board—a gold currency board—appropriate to their size and status, a world system of currency boards could develop to overcome the limitations of the current patchwork of smaller-place currency boards. The prospect of rapid appreciation of the reserve currency that has stalked regional currency boards since the decline of Bretton Woods would retire as an issue if even one of the major economies committed to fixing the supply of its currency to the demand for it in globally produced gold-defined instruments.[13]

Monetary reform is there for the taking right now in the world, even as we appear to be beholding one regional currency crisis after another, with cryptos stalking ominously. To continue to insist, as the grandees of the current monetary institutions are prone to, that our monetary system needs tweaks, that there is nothing about it that more bureaucratic effort cannot fix, is to miss the point. The prevailing monetary system does not comport with the actual monetary order of the world, an order that

[11] Robert A. Mundell, "The Future of the International Monetary System," in Bretton Woods Revisited: Evaluations of the International Monetary Fund and the International Bank for Reconstruction and Development, ed. A.L. Keith Acheson et al. (London: Palgrave Macmillan, 1972).

[12] Bartley quoted in Brian Domitrovic, Econoclasts: The Rebels Who Sparked the Supply-Side Revolution and Restored American Prosperity (Wilmington, Del.: ISI Books, 2009), 84.

[13] Arthur Laffer proposed such a remedy as early as 1980, in "The Case for a Gold-Backed Dollar," in The Pillars of Reaganomics: A Generation of Wisdom from Arthur Laffer and the Supply-Side Revolutionaries, ed. Brian Domitrovic (San Francisco: The Laffer Center at the Pacific Research Institute, 2014).

emphasizes realness, stability, and an organic quality to money that a bureaucratic system by definition cannot produce. Currency boards can, on all important criteria, close the currently yawning gap between the world monetary system and its order. The only risks entailed in currency boards are those associated with the great success and prosperity that they bring without fail.