

TRANSITIONING STANDARDS OF VALUE IN FIXED-VALUE MONETARY SYSTEMS

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By now I think we can agree that the absence of an official, rules-based, cooperatively managed monetary system has not been a great success. In fact, international financial crises seem at least as frequent and more destructive in impeding economic stability and growth.

—Paul Volcker (2014)

Soft and Hard Money Approaches to Monetary Affairs

Historically, there have been two basic frameworks by which a government organizes its monetary affairs. One of these—the Soft Money approach—we are quite familiar with today: a process by which a committee of government bureaucrats manages a floating fiat currency of some sort, on a day-to-day and ad hoc basis. The other format—the Hard Money approach—is typified by the Rule of Law, which is some definite and unchanging framework by which the currency is managed. Consequently, there is no need or role for a day-to-day human discretionary element, except perhaps in some of the particulars of the system's execution.

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The Soft Money Approach

Under the Soft Money approach, the goal of monetary policy is to maintain full employment, price stability, and moderate interest rates—and to satisfy an array of interest groups. These include voters and the political class; exporters, importers, and other commercial interests; bankers and the financial industry; agricultural and other commodity producers; creditors; and debtors of various sorts, particularly the federal government.

What a wondrous tool money can seemingly be, to address all of these issues and interests. And, it has no apparent cost, or, it appears, need to bother with a parliamentary process. Thus, the “Rule of Man” is paramount, and typically unfettered in practice by any defined framework whatsoever.

The Hard Money Approach

In practice, there has been only one kind of law or rule that is used in the Hard Money approach: namely, a “fixed-value system” in which the value of the currency is to be the same as some defined benchmark. Although a variety of commodities have been used as a monetary base, gold and silver have long been dominant. In the late 19th century, these bimetallic systems were simplified further into monometallic systems. The value of the currency would be fixed at, for example, 23.2 troy grains of gold, or 1/20.67th of a troy ounce.

Fixed-Value Policies Are Very Common Today

Although it may seem that the Hard Money approach to organizing monetary affairs is basically nonexistent today, many countries have adopted forms of a fixed-value system. Consequently, these countries do not attempt to address all of the myriad interests of the Soft Money enthusiasts via management of the currency. There is no meaningful discretionary element.

Many governments in the world have a fixed-value policy with some major international currency. The 19 members of the eurozone have adopted a common currency over which the members and their central banks have no direct control. In effect, they have given up their domestic discretionary policy in favor of a form of fixed-value policy with what amounts to an external benchmark. This arrangement is not much different from dollarized countries such as

Ecuador and El Salvador. In addition, there are six other states that use the euro, but are not officially part of the eurozone (Monaco, San Marino, Vatican City, Andorra, Kosovo, and Montenegro), plus four territories (Akrotiri and Dhekelia, Saint Pierre and Miquelon, French Southern and Antarctic Lands, and Saint-Barthelemy). Also, there are 27 countries that have a currency linked to the euro, often via a currency board. They include eight African countries that use the West African CFA franc, seven African countries that use the Central African CFA franc, plus Bulgaria, Denmark, and Morocco.

Altogether, a total of 55 nations and autonomous territories have variants of a nondiscretionary fixed-value policy with the euro, not counting those countries where the euro is in common but informal/unofficial usage. These governments, in effect, have adopted a Rule of Law (“use the euro” or “link to the euro”) and have consequently abandoned discretionary monetary policy.

In recent years, this arrangement has infuriated many economists who are ardent believers in the advantages of discretionary monetary management. This has led them to insist that Spain, Greece—and most any other country that gets itself into economic difficulties—would be better off leaving the eurozone and adopting some independent floating currency arrangement, which could then be independently managed to produce the kinds of economic outcomes they hope for. Typically, it is suggested that this process begin with a substantial devaluation.

One might invent other rules-based systems without any discretionary element based on measures of prices, quantity-based measures, or other indicators.¹ Sometimes it is proposed that floating fiat monetary policy be rigidly determined by a Taylor rule, inflation targeting, nominal GDP targeting, or various measures of credit. But these ambitions are typically abandoned almost immediately in practice for a day-to-day, ad hoc approach.

Thus, it turns out that the only rules-based system of any demonstrable practicality is a fixed-value system. The only real question is: What should one fix the value to? Or, in old-fashioned terminology: What should be the standard of value?

¹Inflation targeting and other such guidelines, as used by most central banks today to varying degrees, amount to vague frameworks for central bank discretion. The term “rules-based” is here used to mean a largely automatic system, for example a fixed-value policy with a currency-board-like operating mechanism, which does not have a significant discretionary element.

Fixed-Value Systems Are Market Based

The term “market based” is often applied to fixed-value systems, because the amount of currency in existence (the base money supply) is determined by market participants via the automatic currency-board-type system, rather than by the decisions of a board of bureaucrats. The base money supplies of existing currency board systems vary on a daily basis, expanding or contracting depending on people’s interest in holding the currency. When Bulgarians (or indeed anyone) want to hold more Bulgarian levs, they go to the Bulgarian central bank, offer euros, and receive levs. Or, if they wish to reduce their holdings of levs, they can offer levs and receive euros. This process applies even in the case of a shared currency: the amount of euros in Italy, and held by Italian individuals and institutions, is determined by Italians’ willingness to hold euros. At any time, they can acquire more euros, or reduce their holdings, as they see fit.

Deciding on a Standard of Value Today

Today, a Hard Money–minded government deciding what it might fix the value of its currency to might choose between the U.S. dollar and the euro. In making that choice, there are two basic considerations: (1) which international currency is likely to be the most successful over time, and (2) which international currency is used by most trading partners. For example, Latin American countries tend to gravitate toward U.S. dollars, while Eastern European and African countries tend toward euros.

The Chinese yuan is getting more attention today as an international currency but is still inconvertible on the capital account and, like many emerging market currencies, subsidiary to the dollar. The Japanese yen at one time seemed destined to become a highly demanded currency but has lost luster, just as the British pound did. The Swiss franc had a huge surge in popularity as it was perceived as a meaningful alternative to the euro. This resulted in a rising value, which the Swiss central bank capped. Thus, the Swiss franc became a *de facto* subsidiary currency of the euro with what amounts to a fixed-value policy, although not one expected to be permanent, as witnessed by the recent depegging of the franc-euro exchange rate.

Most countries today are rather small. Out of 242 countries listed by Wikipedia, only 26 have a population larger than 50 million.

Smaller countries are normally much more enmeshed in foreign trade than larger ones. Even Nigeria (178 million) has few or no automobile manufacturers, computer equipment manufacturers, or makers of electric utility generation and delivery infrastructure, but must obtain all of these goods from foreign trade. For these and a great many other reasons, the exchange rate between the local currency and that of trading partners is of great importance, and possibly the source of much turmoil if it becomes volatile. The advantages of fixed exchange rates for trade, financing, and investment incentivize a country to adopt a fixed-value system, instead of having some sort of independent floating currency managed to address domestic policy goals. This incentive was an important basis for the creation of the eurozone and the abandonment of independent fiat currencies across Europe.

In short, governments that embrace a fixed-value approach want stability in their monetary arrangements, instead of the unpredictability inherent in Soft Money approaches with floating fiat currencies of unpredictable values managed by bureaucrats with unpredictable opinions of what to do next. Countries want stability in the terms of exchange rates and in terms of a currency with a predictable value over the long run.

It might be argued that the current management of the dollar or euro is not very promising, and that long-term stability will be badly compromised over a relatively short timeframe. However, for the moment, such considerations are outweighed by the advantages of maintaining stability in the terms of trade—in other words, maintaining a fixed-value parity with either the dollar or euro.

In the market for a standard of value, the dollar and euro still have the most market share. However, even these currencies are limited in the degree to which they can express any meaningful independence. A tolerable degree of variance in exchange rates between dollars, euros, and also British pounds and yen, is seen as desirable by most everyone. Thus, in a sense, dollars, euros, pounds, yen, Swiss francs, and Chinese yuan are really somewhat different flavors of one single option—today's floating fiat currency status quo. This being the case, it is perhaps not too surprising that leading central banks around the world also have a remarkably similar policy stance at this time, with periodic bouts of monetary base expansion combined with interest rates, on both the short and rather heavily managed long end, which are among the lowest in the last 500 years.

A Standard of Value That Is Not Itself a Floating Fiat Currency

The dollar, euro, and every other major world currency today are floating fiat currencies, operated along Soft Money principles with a heavy discretionary element. Among alternatives for a standard of value that are not themselves floating fiat currencies, or otherwise subject to the daily whims of human managers and the tendency of fiat currencies to suffer a disastrous demise, there is really only one option—gold. In the past, silver served as something of a contender, but even that was only due to the fact that during the bimetallic era prior to 1870, the market value of silver and gold were very closely linked. Thus, they were effectively two versions of the same thing, like a \$1 bill and a \$20 bill.² The effective end of the bimetallic era in the mid-1870s eliminated silver as an attractive standard of value, as demonstrated by those countries, notably China, that attempted to stay on a silver-based system.

A fixed-value system that uses gold as a standard of value, or what we call a “gold standard system,” is inherently quite similar to one that uses the euro or dollar as a standard of value, except for the choice of the standard. The preferred operating mechanisms are similar in each case, with systems that resemble currency boards the most effective and reliable means to accomplish the fixed-value policy goal.

Unfortunately, because gold does represent a meaningful alternative to today’s fiat currencies, it also has a substantial amount of exchange-rate variance with those currencies. Some of this apparent variance is probably due to the fact that price formation tends to occur in markets for financial contracts with limited connection to gold bullion (e.g., the U.S. Comex futures market and the London Bullion Market Association’s market in “unallocated gold,” defined by the LBMA as “unsecured liabilities of LBMA member banks”). Several efforts are under way today to create transparent and large-volume markets where price formation is based on transactions in gold bullion alone, for immediate delivery. In any case, the natural outcome of using gold as a standard of value is the potential for substantial exchange-rate volatility with the dollar or euro.

²In actual practice, the U.S. \$1 coin was made of silver and the \$20 coin was made of gold.

At the present time, the disadvantages of introducing this potentially intolerable level of chaos into the terms of trade makes gold rather unpopular as a standard of value. In the past, this problem did not exist. The major world currencies such as the U.S. dollar, British pound, German mark, French franc, and others were themselves based on gold. A government that adopted a fixed-value system with gold as the standard of value would also stabilize exchange rates with major world currencies. Thus, adopting a major world currency as a standard of value implied a stable value parity with gold.

One can imagine a situation where a government might decide that the dollar, euro, and other options had become so problematic that gold presented a more attractive choice as a standard of value in a fixed-value system. Unfortunately, that point is likely to be reached rather far along the course of currency debauchery, such that a country would not likely avoid the well-known effects of such monetary misbehavior, but perhaps would be able to recover from them sooner. It would not be particularly difficult to decide when to abandon existing euro or dollar allegiances, as these currencies would by then seem to be unviable disasters to be avoided with extreme prejudice.

At that point, the main issue becomes how to establish and properly manage a gold-based, fixed-value currency system. The basic principles are no different than for a euro-based or dollar-based fixed-value system. Fundamentally, it is an automatic currency-board-type mechanism.³

In 1990 Estonia was part of the Soviet Union. Naturally, the ruble was in use; there was no other currency in Estonia. Between 1990 and 1995, the ruble entered hyperinflation, and Estonia experienced the same. In 1991, Estonia established its independence from the Soviet Union. In 1992, Estonia introduced its own currency, the kroon, which was fixed to the deutschemark at eight kroon per mark using a currency board system. The deutschemark currency board evolved into a euro currency board. In 2011, the kroon was retired, and euro notes and coins began to be used in Estonia.

Perhaps in the future, the euro will enter a period of impracticality just as the once-reliable ruble did in the 1990s.⁴ Estonia, today

³Operating mechanisms for a number of variants of gold-based, fixed-value systems are discussed in in Lewis (2013).

⁴Officially, the ruble's value was linked to the British pound from 1961 to 1991. In early 1989, the black market rate was about four rubles per dollar.

with no independent currency, could again establish a new currency, perhaps again called the kroon, which could be linked to gold in a currency-board-like fashion.

Estonia had another currency called the mark between 1918 and 1927. It was originally linked to the German ostmark at a 1:1 ratio—a currency that, although it was a floating fiat currency after World War I, was not obviously worse than the other (then-floating) major international currencies of the day, and had the advantage of locality.⁵ Unfortunately, the German's mark's prewar history of discipline did not apply after the war. The Estonian mark was hyperinflated, likely due to its links with the German currency. In 1924, the first Estonian kroon was introduced, linked to the Swedish krona at 1:1. As the krona was itself linked to gold, this implied a ratio of 2,480 kroon per kilogram of gold. In 1928, the kroon received a direct, independent gold basis, replacing its indirect link via the Swedish krona. In 1940, Estonia was occupied by the Soviet Union, and the kroon was replaced by the ruble.

During the 1970s, the value of the U.S. dollar fell from its Bretton Woods parity of 1/35th of an ounce of gold to a momentary nadir around 1/800th, a decline in value of over 20:1 compared to its previous parity benchmark. Although many countries had currencies that were notionally freely floating and independent, nevertheless, in practice, they tended to follow the dollar lower in value as compared to gold. Despite the crisis atmosphere, no government developed a viable alternative—an example of the principle that, if a transition occurs, it tends to happen only after the former leading currencies reach a stage of total unviability.

Multicurrency Systems

The term “central bank” has a number of associations. One is the idea of floating fiat currencies managed by some panel of bureaucrats in a Soft Money fashion. But, most central banks actually date from the 19th century, with the Bank of England the forerunner and model for institutions that were established around the world.

⁵The ostmark was issued by Germany in 1918 for use in eastern areas under German control at that time. It was equal to the German papiermark at a 1:1 ratio. The papiermark was floated from its gold basis and devalued beginning in 1914. Hyperinflation in Germany properly began in 1919 and continued to November 1923.

These 19th-century central banks used a Hard Money approach, based on a fixed-value ratio with gold bullion. The result is often termed the “Classical Gold Standard Era,” from about 1870 to 1914. There is nothing inherent to a central bank that is contrary to a gold-based, fixed-value system.

However, the introduction of central banks had another aspect—namely, currency monopoly. Gold had been the basis of money in Europe and elsewhere for decades and centuries previous (along with silver in the bimetallic era), but actual representative monies (such as paper banknotes) were issued by a variety of entities. In the United States, there were more than 1,500 banks issuing gold-based banknotes in 1859, all of them in standardized dollar units. Japan had more than 1,600 paper currencies in circulation in the 1850s, most (but not all) of them based on gold and silver. Prior to the establishment of the mark, Germany had more than 200 separate currencies, mostly based on the silver *vereinsthaler* coin.

After 1870, governments typically replaced this myriad of currency issuers with a single monopoly issuer, the central bank, along the lines of the Bank of England, which became an effective currency monopolist in 1708. The United States was a laggard in this trend. The Federal Reserve was not established until 1913, and did not enjoy an effective currency monopoly until the 1940s. Although the Federal Reserve Note soon became ascendant, there were 5,389 commercial banks in the United States, even as late as 1930, that reported to the Office of the Comptroller of the Currency that they were issuing their own gold-based banknotes within the framework of the National Bank System.

Today we are quite accustomed to the notion of currency monopoly, accompanied by various laws that inhibit (though often do not prohibit) the use of foreign currencies or other alternatives. However, international use of currencies is a lot more common than most assume. Many governments are unable to issue debt in their domestic currencies and regularly issue bonds denominated in dollars or euros. Domestic corporations do the same. Even Britain’s government recently issued a series of bonds denominated in Chinese yuan. Germany’s government has issued debt denominated in U.S. dollars, and the U.S. Treasury, in the 1960s, experimented with Treasury bonds denominated in foreign currencies.

A country could, conceivably, have no domestic currency at all, and allow people to use whatever they wished. In practice, they

would likely use dollars or euros, perhaps with a bit of a regional currency, as the South African rand is used in southern Africa, or the Thai baht in Laos and Cambodia. Zimbabwe has an official open-currency policy and no domestic currency. However, its government has publicly floated the idea of introducing a new Zimbabwean currency based on gold.

Alternately, a country could have two currencies, both issued by the government or a central bank. This was the case in Estonia in 1926, when the Estonian mark circulated alongside the new Estonian kroon. This arrangement mirrored Germany, in which the gold-based rentenmark circulated alongside the floating fiat papiermark, and Russia, where the gold-based chervonets circulated alongside the fiat ruble.

Today, a territory like Hong Kong could allow (and encourage) the issuance of gold-linked banknotes by private banks, just as it now allows the issuance of dollar-linked banknotes by the same private banks. Both of these currencies could circulate simultaneously and be used in commerce as the basis of contracts by anyone who so wished, without any mandate to do so.

A more libertarian approach would be to allow the issuance of currency of any sort. A bank or nonbank currency-issuing entity could issue banknotes based on currency or commodity baskets, as well as other bases. They could even issue notes guided by the changing opinions of their own in-house panel of fiat money managers. Banknotes themselves are by no means necessary. Various schemes that are wholly nonphysical in nature seem to be popular today, and mirror the Federal Reserve's own deposit and clearing system, which has been in use for decades.

One might expect that the result of free-for-all currency experimentation would resemble the natural outcome throughout history—that is, inferior solutions are eventually discarded, and gold-based currencies reign supreme. The less-viable alternatives would probably have few users, and thus any potential problems would be of such limited scale as to be effectively irrelevant. Probably no great harm would come from such an experiment, and possibly a lot of good as a great many people gained practical experience in the process of establishing and maintaining currency systems. People who are attracted to novelty in monetary affairs could learn why things have generally not been done that way.

Managing a Transition between Floating Fiat Currencies and Gold-Based Currencies

Although these sorts of situations are interesting to think about, and perhaps instructive to put into actual practice, history indicates that there are really only two final options: a floating fiat currency, which typically is abused to the point of disaster within a few decades at most; or a gold-based currency.⁶ The potential challenge today is for a country to manage a transition between a world dominated by fiat dollars and euros, to perhaps a world in which gold-based currencies are dominant—without the pattern of first following the fiat currency into the fiery pits of its final demolition, as Estonia did first with the German mark, and again later with the Russian ruble.

A sensible option would be to introduce a gold-based alternative currency today. The government of China, for example, could either establish a new currency through its central bank or allow multiple private banks to issue their own gold-based currencies, perhaps based on a traditional Chinese monetary unit such as the *tael*.⁷ These would circulate alongside the existing fiat dollar-based yuan, and would be accompanied by tael-based bank deposit accounts and payment systems (checking, wire transfer, credit and debit cards, and other electronic options) no different than those that exist for yuan, dollars, and euros. Today, some Chinese banks reportedly offer “gold savings accounts.” These could be expanded by offering payment services (“gold checking accounts”), with banknotes added at a later time.

If people and businesses decided that they would rather do business in yuan, and enjoy the advantages of limited exchange rate volatility with the international fiat dollar, then they could do so. If they instead decided that they would rather do business on the basis of gold-based tael, as business had been done in China in previous centuries, then they could do that too. They could do both, choosing one currency for one situation and another currency for other transactions. This is no different than a Chinese corporation today that

⁶The dollar has been an unusually long-lived fiat currency, still widely viable more than 40 years after leaving its gold basis in 1971. Nevertheless, it is today worth less than 1/30th of its value versus gold in 1970.

⁷One 19th century Canton tael of silver was 37.5 grams. Using the 16:1 ratio of silver to gold common during the bimetallic era of the 19th century, this would equate to 2,344mg of gold, or 13.2692 taels per ounce of gold.

might issue debt in euros, purchase capital equipment or raw materials in dollars, pay workers in Chinese yuan, and sell products in Indian rupees.

Over time, if today's fiat currencies become less viable as a basis for business, that same Chinese corporation might find it cannot find a buyer for its debt unless denominated in gold-based tael. It might also find that workers refuse to work unless paid in tael, foreign manufacturers of capital equipment demand to be paid in tael instead of their increasingly unviable domestic currency, and that taking anything other than tael in payment for goods and services is folly. The adoption of a gold-based currency system would happen incrementally, with no identifiable "day of transition," and on a wholly voluntary basis.

As a growing number of Chinese and others around the world do business in tael, it would eventually become a dominant international currency. A prominent place for tael emerges naturally. Some Chinese city, most likely either Hong Kong or Shanghai, would become the key financial center for domestic and international tael-based finance. Perhaps other governments would also introduce their own gold-based, fixed-value systems, which would have a fixed exchange rate with the gold-based tael. This emergent monetary order would mirror the world gold standard system of the late 19th century and could last for a century or more.

A major international currency—in practice, either the dollar or euro—could itself transition to a fixed-value arrangement of some sort (White 2012). Likewise, the United States or European Union could introduce a parallel currency that uses a fixed-value system with gold as a standard of value. It is possible for a major international currency to be fixed to another major international currency, the dollar fixed to the euro or vice versa, but for various reasons perhaps not likely. That leaves some external benchmark that is not itself a floating fiat currency. Although some might suggest a commodity basket or some other such benchmark, these notions have remained largely hypothetical.⁸ Historically, gold has been the external benchmark of choice.

⁸In 1875, William Stanley Jevons suggested a commodity basket approach in his book *Money and the Mechanism of Exchange*. In it, Jevons notes that Joseph Lowe proposed a commodity basket standard in 1822, in his book *The Present State of England in Regard to Agriculture, Trade, and Finance*.

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