

## 全球货币范式的一次转变即将到来？

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译者按：在2003年从国际货币基金组织退休之前，Warren Coats博士曾长期担任特别提款权SDR部门负责人。苏东剧变之后，他曾领导了对二十多个国家（包括阿富汗、波斯尼亚、埃及、伊拉克、哈萨克斯坦、肯尼亚、吉尔吉斯斯坦、塞尔维亚、南苏丹、土耳其和津巴布韦）中央银行的技术援助工作，指导这些国家的市场化央行体系的建设与货币制度改革。2003-10年间，他曾担任开曼群岛金融管理局董事会成员。Warren Coats拥有加州大学伯克利分校的经济学学士学位和芝加哥大学的经济学博士学位，目前受聘为约翰·霍普金斯大学克里格艺术与科学学院、应用经济学研究所、全球健康和企业研究的研究员。翟东升教授曾与Coats博士合作发表学术论文Why the world need a reserve currency with a hard anchor，对1971年以来的美元为主导的无锚货币体系提出学术批判。

中文版：

2021年8月15日是著名的“尼克松冲击”50周年的日子。1971年的这一天，理查德·尼克松总统采取了关闭“美元-黄金兑换窗口”等一系列政策以摆脱美国的经济困局，这一“冲击”的强大影响力一直延续到今日。50年前，尼克松总统宣布美国财政部将不再以每盎司35美元的价格兑换黄金。在接下来的几年里，世界各国的货币定价方式出现了转变。一国货币的价格不再锚定黄金的市场价格，而是转而取决于央行的货币供给与市场的货币需求决定的货币价值，货币之间的兑换价格在外汇市场上浮动。中央银行采用各种方法确定其货币供应量，现今大多数央行以各种方式将控制通货膨胀率（通常为每年2%）作为货币发行的目标。

随着加密货币的兴起，下一次货币范式的转变是否即将到来成为人们关注的热点。美元作为主要的国际储备货币的地位可能会因为加密货币的兴起被取代吗？为了探索这个问题，我们需要了解现有的货币体系是如何运作的，以及加密货币的广泛使用如何丰富或改变现有体系。

在描述现存和未来可能的货币体系时，我们需要区分“货币”与“支付手段”。“货币”是人们在偿还债务或购买商品与服务时接受的资产。美元和欧元都是“货币”。“支付手段”是指如何将货币交付给收款人。您是否亲自将美元钞票和硬币交给星巴克收银员，或开出支票（银行汇票）并将其邮出，或通过eWire、Zelle、Venmo、PayPal以及其他电子方式将“货币”从您的银行账户转移到亚马逊商家，或使用其他数字支付服务呢？也许，您通过Visa、万事达卡、美

国运通卡等借款购买商品和服务，并在每个月末或一段时间内偿还。抑或，如果您没有银行账户（数字货币的形式之一），您可以亲自将实物货币交付给 Hawala 经手人、速汇金或西联汇款办事处，无论收款人在天涯海角，都可以以电子方式汇至距其最近的办事处。如果您支付的货币与收款人希望收到的货币不同，您的货币将在外汇市场上进行相应的兑换。

对加密货币的讨论既包括日新月异的支付方式（数字支付技术），也包括新的、私人创造的货币，例如比特币、以太坊或瑞波币。私人货币的价值决定方式存在极大差异。我所说的私人货币并不包括由私人创造的、可赎回法定货币的资产，例如我们的银行账户。举个例子，当我们谈到美元时，总是包括银行账户中的美元余额、通过 Visa 卡支付的美元款项等。这些都是私人创造，但最终可以兑换为美联储发行货币或某个联邦储备银行存款的资产。它们是可信的、对美国法定货币的所有权。（事实上，）大多数美元是私人创造的。

所有货币的价值都由其供求关系决定。对货币的需求源于使用该货币支付债务的可接受性，以及此类债务的数量（通常与我们的收入密切相关）。在每个国家或地区，收款人必须接受该国或地区的法定货币（例如，美国的美元）。尤其是，法定货币必须可以用于向当地政府支付税收。真正的私人货币（根据最新的统计超过 11,000 种）在这方面面临严峻挑战。很少有人或企业会接受比特币或任何其他此类私人加密货币。因此，实际支付中对此类货币的需求非常低。例如，对比特币的需求几乎完全是投机性的，更像是一种赌博形式，就如同对彩票的需求一样。这种私人货币在法定货币迅速（因）通胀（而贬值）或币值不稳定的国家（例如委内瑞拉）更具吸引力。

货币在跨境支付中的可接受性是一个特殊的挑战。一国货币不太可能在其他国家/地区普遍使用。举例来说，当某墨西哥人需要向德国人付款时，付款方通常希望使用墨西哥比索，而收款方则希望获得欧元。因此，付款方需要在外汇市场上将比索兑换成欧元以完成交易。对于外汇市场的交易商们来说，将全球约 200 种货币两两搭配，维持多元货币库存并进行交易的成本是十分高昂的。事实证明，将付款方持有的货币兑换成美元，再将美元兑换成收款方想要的货币更符合经济常理，成本更低。由此一来，美元成为了国际货币体系的媒介货币。

所谓媒介货币的经济性可以用语言的使用来譬喻。2021 年日本奥运会有 206 个国家参加。为了与东道国日本交流，参与者可以都学习日语。但期望日本东道主学习 205 种外语是不现实的。那如何与来自其他 205 个国家的参与者交流呢？为此，英语成为他们默认的第二语言。与更孤僻的美国人不同，大多数欧洲人会讲多种语言，但英语总是其中之一。作为通用语言的英语在语言使用方面的地位相当于作为媒介货币的美元（在国际货币体系中的地位）。

关于货币价值的另一半故事聚焦货币的供应上。比特币的优点是具有非常明确的、以程序方式决定的渐进增长率，直到其供应量在2040年左右达到2100万。如今（2021年8月）的供应量为1877万。请参阅我之前的文章：“加密货币——比特币现象” [1]。其他 11,000 多种加密货币都有自己的规则来确定其供应量，有些是清晰的，有些则相当神秘。所谓的“稳定币”是与特定的“锚”相关联，并且通常可以兑换为该“锚”，如美元或其他一些货币，这些“锚”的可信度各不相同。

大获成功的E-gold（1996年至2006年）是数字货币的一个例子，它拥有明确和严格的背书，并能以固定的价格赎回某种商品。“E-gold”这种货币的供应取决于该固定价格下的市场需求——我在别处称之为货币局制度。我在关于建立波斯尼亚和黑塞哥维那中央银行的书中描述了货币局制度的运作方式[2]。

美元在跨境支付中的主导地位远不止作为媒介货币。许多全球交易的商品，例如石油，都以美元定价，故此类交易以美元结算。仅以一种货币为全球市场上的同质商品交易定价，使该市场更有效率（同货同价）。以美元（或任何其他单一货币）进行跨境支付还避免了在外汇市场上换汇的昂贵支出。美元被最广泛地使用是因为它的价值相对稳定，而且它拥有成熟且流动性较高的证券市场，各经济体可在其中持有用于跨境支付的美元外汇储备。

那么，当前加密货币的发展有多大可能催化（全球货币体系）由美元转向其他货币和支付方式呢？美国政策的数个因素提高了许多国家对寻找替代方案的兴趣。具体来说，在我最近发表于《中央银行杂志》，关于国际货币基金组织价值6500亿美元特别提款权分配的文章中，陈述了如下几点：

（1）繁琐的支付技术。

通过 Swift 进行跨境支付的现有安排在技术上是粗糙且过时的。

（2）美元的武器化。

美国滥用美元在跨境支付中的重要地位，通过（对别的国家）威胁阻断美元的使用，从而迫使其他国家违背自身意愿配合其政策。

（3）美元价值的风险越来越大。

对美元通胀的预期越来越高，以及美国财政赤字的飙升，都增加了持有和交易美元的风险。

多数中央银行正在升级其支付系统。但中国人民银行 (PBoC)

是开发中央银行数字货币 (CBDC, 即数字人民币)的领跑者。然而, 数字人民币几乎没有取代美元的潜力, 这主要是因为, 其一, 美联储也在对其支付技术进行现代化改造, 包括探索自己央行数字货币的设计, 如有必要可在不久的将来与中国的支付技术相匹敌; 其二也是更重要的是, 中国的资本管制、尚不成熟的人民币金融市场以及尚不完善的法治建设, 使人民币作为美元的替代品并不具有吸引力。然而, 后面这些问题对于欧元而言较轻。

使用国际货币, 而不是寻找另一种国家货币来代替美元有如下好处, 包括更轻松地进行跨境支付, 以及降低政治操纵或货币政策管理不善的风险。例如, 比特币可以在世界任何地方进行支付, 而不受政府的管控。比特币区块链支付技术的严重缺陷, 可能会被某种上位替代性技术克服。但要成为一种严格意义上的货币, 比特币在支付中的广泛接受程度必须在现有基础上大幅提升。在支付中更广泛的接受程度有助于稳定比特币目前飘忽不定的价格。然而这似乎不太可能。以黄金为“锚”的货币, 例如早期的E-gold, 享有众所周知且历史悠久的“锚”带来的优势。然而, 近年来黄金的价值一直非常不稳定, (因此, 以黄金为“锚”的货币币值也很难稳定)。铝价非常稳定, 并且铝材的供应具有弹性, 未来几周将推出以铝为“锚”的铝币[3]。

但现今, 已有由国际发行并监管的货币, 那就是国际货币基金组织的特别提款权 (SDR)。即使不能替代美元, 也能作为其补充。国际货币基金组织刚刚批准大幅增加其供应量 (“The IMF’s 650bn SDR allocation and a future digital SDR” [4])。特别提款权的价值取决于其估值篮子中 (目前为止) 五种主要货币的市值。这五种货币的价值已然相对稳定, 由这五种货币组合成的篮子 (投资组合) 价值更加坚挺。特别提款权的供应、用途及定价的规则已经确立且相当透明, 由国际货币基金组织的190个成员国管理。简而言之, 特别提款权是真正具有国际性的。但是, 它只能被国际货币基金组织成员国和世界银行、国际清算银行等10家国际金融机构使用。

虽然特别提款权在增加中央银行外汇储备方面发挥了有限的作用, 但由于私营部门未在国际贸易和金融产品 (如债券) 中用其计价, 并且特别提款权尚无可供私人使用的数字支付方式, 因此它未能发挥作为国际货币的关键作用。如果国际货币基金组织真的要让特别提款权成为重要的国际货币, 它应该重视鼓励其在私营部门使用。

从长远来看, 国际货币基金组织应采用货币局制度发行官方特别提款权, 并将其价值与一小篮子商品的市场价值锚定, 而非与主要货币挂钩。

[1] <https://wcoats.blog/2014/01/25/cryptocurrencies-the-bitcoin-phenomena/>

[2] <https://wcoats.blog/2008/08/13/one-currency-for-bosnia-creating-the-central-bank-of-bosnia-and-herzegovina/>

[3] <https://luminiumcoin.com/>

[4] <https://www.centralbanking.com/central-banks/payments/7857111/the-imfs-650bn-sdr-allocation-and-a-future-digital-sdr>

英文原文

A shift in monetary regimes?

Posted on August 9, 2021 by wcoats

By Warren Coats[1]

This Sunday, August 15, is the 50th anniversary of President Richard Nixon' s closing of the gold window as part of the "Nixon Shock." "Fifty years later Nixon' s August surprise still reverberates" He announced on that day that the U.S. Treasury would no longer redeem its dollars for gold at \$35 an ounce. Over the subsequent few years, the world moved from national currencies whose values were anchored to the market value of gold, to currency values determined by central banks' regulation of their supply relative to the market' s demand. The value of one currency for another floated in the foreign exchange market. Central banks have deployed various approaches to determining the supplies of their currencies and most have now settled on targeting an inflation rate (often 2% per year) in one way or another.

With the rapidly increasing interest in cryptocurrencies, some have asked whether we are on the brink of another monetary paradigm shift? Specifically, might the dollar be replaced as the dominant international reserve currency. To explore that question we need to understand how the existing monetary systems work and how the widespread use of cryptocurrencies might add to or change these systems.

In describing the existing and potential future monetary systems, we need to distinguish "money" from the "means of payment." Money is the asset that people accept in payment of debts or for the purchase of goods

and services. The U.S. dollar and the Euro are “money.” The means of payment refers to how money is delivered to the person being paid. Do you personally hand dollar bills and coins to the Starbucks cashier, write out a check (bank draft) and put it in the mail, or electronically transfer “money” from your bank account to an Amazon merchant via eWire, Zelle, Venmo, PayPal, or some other digital payment service? Or perhaps you purchase goods and services with borrowed money (Visa, MasterCard, American Express) that you pay back at the end of each month or over time. Or if you don’t have a bank account (a form of digital money) you might hand-deliver physical currency to a Hawala dealer or a MoneyGram or Western Union office to be electronically transferred to their office nearest to the person you are sending it to, potentially anywhere in the world. If you are paying in a currency that is different than the one the payee wishes to receive, your currency will be exchanged accordingly along the way in the foreign exchange market.

Discussions of cryptocurrencies include both the latest and evolving means of payment (digital payment technologies) as well as new, privately created moneys such as bitcoin, Ethereum, or Ripple. Private currencies vary enormously with regard to how their value is determined. By private currencies I do not mean privately created assets redeemable for legal tender, such as our bank accounts. When we speak, for example, of the U.S. dollar, we invariably include dollar balances in our bank accounts, dollar payments made via our Visa card, etc. These are all privately produced assets that are ultimately redeemable for Federal Reserve currency or deposits at a Federal Reserve Bank. They are credible claims on the legal tender of the United States. Most U.S. dollars are privately created.

The value of all money is determined by its supply and demand. The demand for money arises from its acceptability for payment of our obligations and the quantity of such obligations (generally closely related to our incomes). Within each country, its legal tender money (e.g., the U.S. dollar in the U.S.) must be accepted by payees. In particular, it must be accepted by the government in payment of taxes. Truly private currencies (those not redeemable for legal tender, of which there are over 11,000 at last count) have a serious challenge in this regard. Very few people or businesses will accept bitcoin, or any other such private cryptocurrency. As a result, the demand for such currencies for actual payments is very low. The demand for bitcoin, for example, is almost totally speculative—a form of

gambling like the demand for lottery tickets. Such private currencies are more attractive in countries whose legal tender is rapidly inflating or has unstable value (e.g., Venezuela).

The acceptability of a currency in cross border payments raises special challenges. My currency is not likely to be the currency in general use in other countries. Someone in Mexico paying someone in Germany will generally have Mexican pesos and the recipient in Germany will want Euros. The pesos will need to be exchange for Euro in the foreign exchange market. It would be very costly for dealers in the FX market to maintain inventories of and transact in every bilateral combination of the world's 200 or so currencies. It has proven more economical to exchange your currency for U.S. dollars and to exchange the U.S. dollars for the currency wanted by the payee. The dollar has become what is called a vehicle currency.

The economy of a so-called vehicle currency can be illustrated with languages. Two hundred and six countries are participating in the 2021 Olympic Games in Japan. To communicate with their Japanese hosts participants could all learn Japanese. It is unrealistic to expect the Japanese hosts to learn 205 foreign languages. But what about communicating with their fellow participants from the other 205 countries. For this purpose, English has become the default second language in which they all communicate. Unlike more isolated Americans, most Europeans speak several languages, but one of them is always English. English as the common language is the linguistic equivalent of the dollar as a vehicle currency.

The rest of the value of money story focuses on its supply. Bitcoin has the virtue of having a very well defined, programmatically determined gradual growth rate until its supply reaches 21 million in about 2040. The supply today (Aug 2021) is 18.77 million. See my earlier explanation:

“Cryptocurrencies-the bitcoin phenomena” The other 11,000 plus cryptocurrencies each have their own rules for determining their supply, some explicit and some rather mysterious. The class of so called “stable coins” are linked to and often redeemable for a specific anchor, sometimes the U.S. dollar or some other currency. The credibility of these anchors varies.

The highly successful E-gold (from 1996-2006) is an example of a digital currency that had well-defined and strict backing and redemption for a commodity at a fixed price. "E-gold" The supply of such currencies is determined by market demand for it at its fixed price—what I have elsewhere called currency board rules. I describe how currency board rules work in my book about establishing the Central Bank of Bosnia and Herzegovina: "One currency for Bosnia-creating the Central Bank of Bosnia and Herzegovina"

The dominance of the U.S. dollar in cross border payments reflects far more than its use as a vehicle currency. Many globally traded commodities, such as oil, are priced in dollars and thus payments for such purchases are settled in dollars. Pricing a homogeneous commodity trading in the global market in a single currency makes that market more efficient (the same price for the same thing). Making cross border payments in dollars (or any other single currency) also avoids the costly need to exchange one for another in the FX market. The dollar is most often chosen because its value is relatively stable, and it has deep and liquid securities markets in which to hold dollars in reserve for use in cross border payments.

So, what are the chances that current cryptocurrency developments might precipitate a shift from the dollar to some other currency and means of payment. Several factors of U.S. policy have heightened interest by many countries in finding an alternative. Specifically, from my recent article in the Central Banking Journal on the IMF' s \$650 billion SDR allocation:

"Cumbersome payment technology. Existing arrangements for cross-border payments via Swift are technically crude and outmoded.

The weaponization of the dollar. The US has abused the importance of its currency for cross-border payments to force compliance with its policy preferences that are not always shared by other countries, by threatening to block the use of the dollar.

The growing risk of the dollar' s value. The growing expectation of dollar inflation and the skyrocketing increase in the US fiscal deficit are increasing the risk of holding and dealing in dollars." "The IMF' s 650bn SDR allocation and a future digital SDR"



Most central banks are upgrading their payment systems. But the Peoples Bank of the Republic of China (PBRCC) is one of the most advanced in developing a central bank digital currency (CBDC), the e-CNY. However, it has little potential for displacing the dollar for several reasons. The Federal Reserve is also modernizing its payment technology, including exploring the design of its own CBDC, and can match China's payment technology in the near future if necessary. More importantly, China's capital controls, less developed Yuan financial markets, and less reliable rule of law make the Yuan an unattractive alternative to the dollar. These latter impediments do not apply to the Euro, however. "What will be impact of China's state sponsored digital currency?"

Rather than looking for another national currency to replace the dollar, there are several advantages to using an international one. These include greater ease in making cross border payments and the reduced risk of political manipulation, or a national currency's domestic mismanagement. Bitcoin, for example, can make payments anywhere in the world without being controlled by any one of them. The serious drawbacks of Bitcoin's blockchain payment technology might be overcome with one or another overlaid technology. But to become a serious currency, bitcoin must be dramatically more widely accepted in payment than it is now. Widespread acceptance in payments could generate the demand to hold them for payments, which would tend to stabilize its very erratic value. This seems very unlikely. A digital gold-based currency, such as the earlier E-gold, would enjoy the advantage of an anchor that is well known and that has enjoyed a long history. However, gold's value has been very unstable in recent years. Aluminum has enjoyed a very stable price and elastic supply and will be the anchor for Luminium Coin to be launched in the coming weeks: <https://luminiumcoin.com/>

But the world has already established the internationally issued and regulated currency meant to supplement if not replace the dollar, the Special Drawing Rights of the International Monetary Fund. The IMF has just approved a very large increase in its supply. "The IMF's 650bn SDR allocation and a future digital SDR" The SDR's value is determined by the market value of (currently) five major currencies in its valuation basket. While all five of these currencies have a relatively stable value, the value of the basket (portfolio) of these five is more stable still. The rules for determining the SDR's value and supply, as well as its uses, are well

established and transparent and governed by the IMF' s 190 member countries. In short, the SDR is truly international. However, it can only be used by IMF member countries and ten international financial institutions such as the World Bank and the Bank for International Settlements.

While the SDR has played a limited useful role in augmenting central bank foreign exchange reserves, it has failed to achieve a significant role as an international currency because of the failure of the private sector to invoice internationally traded goods and financial instruments (such as bonds) in SDRs and the absence of a private digital SDR for payments. If the IMF is serious about making the SDR an important international currency it should turn its attention to encouraging these private sector uses of the unit.

“Free Banking in the Digital Age”

In the long run the IMF should issue its official SDR according to currency board rules and anchor its value to the market value of a small basket of commodities rather than key currencies: “A Real SDR Currency Board”