Where Is Private Note Issue Legal?

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During the 18th and 19th centuries and for part of the 20th century, more than 60 countries had free banking. The major characteristics of free banking are competitive issue of notes (paper money) and deposits by commercial banks, low legal barriers to entry, little regulation unique to the industry, and no central control of reserves (the monetary base) within the national monetary system (Dowd 1992, White 1995). Among the countries that had a form of free banking was the United States. Even after the freest period of free banking ended, with the Civil War, banks continued to issue notes until the federal government effectively monopolized note issue in 1935.

How Note Issue Became a Government Monopoly

Despite extensive historical experience with free banking, it has long since become commonly accepted among economists, jurists, and the public at large that issuing notes and coins is properly a government monopoly.[1] This attitude is at variance with attitudes about most other goods and even about other forms of credit. Over the last 30 years or so, people around the world have seen the benefits of moving from government monopoly to competition in many

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[1]For example, Frederic Mishkin's widely used money and banking textbook has only the briefest mentions of competitive issues of currency (see Mishkin 2007: 49, 248–49). For the consensus view among jurists, see Mann (1982: 15–17).

industries, including airlines, railroads, electricity generation, mail, and telephones. All former centrally planned economies now have competition in banking. Whether in Washington or Warsaw, no consumer would be happy with a monopoly government bank from which there would be no appeal if it refused him a mortgage, a car loan, or a credit card.

Why, then, is note issue different? The answer seems to be the analogy between notes and coins as hand-to-hand currency. From ancient times, coinage has been considered a government prerogative. The first Chinese coins, issued during the "Spring and Autumn period" (771–403 B.C.) may well have been government-issued; the first Western coins, issued about 600 B.C. in Lydia, a Greek kingdom in what is now western Turkey, certainly were. When the Pharisees asked Jesus whether it was lawful for the Hebrews to pay taxes to their Roman occupiers, his reply was to ask them whose image was on the coins they used to pay taxes. The coins were Roman, so the image was Caesar's. Jesus then famously replied, "Render therefore unto Caesar the things which are Caesar's; and unto God the things that are God's" (Matthew 22: 21).

The Gospel account illustrates the close connection between coinage and taxation. Caesar, and the little Caesars of a thousand principalities who were his eventual successors, issued coins because a monopoly of coinage offered a way of raising revenue that was within the administrative capabilities of ancient and medieval governments. Coinage revenue was significant back then, while today revenue from notes and coins is normally but a small part of government revenue—2 to 3 percent in the United States. Advances in record keeping have given modern governments the ability to tax rich streams of income that tax collectors before the 20th century would have had difficulty even discovering.

From a purely economic perspective, taxation is the only substantial rationale for a forcible government monopoly of coinage. Claims that coinage is a natural monopoly do not withstand examination. If government is a natural monopolist, it is unnecessary to forbid potential competitors, because they are doomed to fail. Moreover, the natural monopoly argument neglects that until the 19th century, governments generally did a poor job of supplying coinage in amounts appropriate for the public's demand. Official coins were often in shortage, occasionally in glut, and rarely in appropriate supply. This was true both in the East and the West

(Peng 1994, v. 1: 197, 358, 393, 545, 547, 585–94; Sargent and Velde 2002: 52–53, 131–38). Private mints, sometimes legal, sometimes illegal, sometimes operating in a gray area of the law, operated in some Western countries in the 18th and 19th centuries and during numerous episodes over centuries in China when the supply of government coinage was inadequate. The British government led the way in supplying a fairly adequate coinage in the 19th century after adopting some, though not all, of the consumer-friendly practices pioneered by private British mints. It lacked sufficient confidence in the Royal Mint's ability to compete with the private mints, thus it prohibited them from continuing to issue coins for circulation in Britain (Selgin 2008: 235–66, 295–305).

The first true circulating notes were issued in China, apparently around the year 995, and were issued by private bankers in the city of Chengdu. The government monopolized note issue in 1024 (Peng 1994, v. 1: 369). So began the first instance of a cycle repeated often in Chinese history: government debasement of the currency as its finances became increasingly precarious; de facto abandonment of notes by the public; then a new ruler or dynasty that eschewed government note issue, allowing free banking, until it too encountered financial problems. Over these cycles, China never seems to have had a vigorous debate about competition versus monopoly in note issue.

In Europe, the first true circulating notes were issued in 1661 by Stockholms Banco, a private bank chartered by the crown in return for half of the profits. Later, after the bank encountered financial problems, the Swedish parliament took it over; much later still, it became what is now Sweden's central bank. Europe's multiplicity of political jurisdictions allowed a variety of policies toward note issue, from competition to monopolization, to develop side by side. Likewise, there was no consensus of views among economists. Adam Smith ([1776] 1981: Book II, chapter 2, final paragraph) contended: "If bankers are restrained from issuing any circulating bank notes, or notes payable to the bearer, for less than a certain sum, and if they are subjected to the obligation of an immediate and unconditional payment of such bank notes as soon as presented, their trade may, with safety to the public, be rendered in all other respects perfectly free." The next economist who exercised an influence anywhere near as great as Smith, David Ricardo ([1817] 1953: 354, 362–63), took the contrary position because of his belief that "after the establishment of Banks, the State has not the sole power of coining or issuing money." He proposed a government monopoly of note issue, an idea he reiterated several years later in a posthumously published pamphlet (Ricardo [1824] 1962: 285–87). At the time, the Bank of England was privately owned (as it would remain until 1945) and it had a de facto monopoly of note issue in and around London, while "country banks" issued notes competitively outside London under onerous restrictions. Ricardo proposed to replace the note issues of the Bank of England and those of the country banks with a government issue. He did not address conditions in Ireland, which had a situation like that of England, with the Bank of Ireland as a privileged bank, or Scotland, where banks operated much more on a footing of equality without onerous restrictions.

Monetary events in Britain during the Napoleonic Wars and financial crises in 1825 and 1836–37 provided fodder for debate about banking regulation. One of the key questions was whether existing arrangements about note issue had contributed to the crises, and whether to change the arrangements. The Currency School, which took many of its ideas from Ricardo, triumphed with the Bank Charter Act of 1844 (7 & 8 Vict. c. 32), the Bankers (Ireland) Act 1845 (8 & 9 Vict. c. 37), and the Bank Notes (Scotland) Act 1845 (8 & 9 Vict. c. 38). The Bank Charter Act subjected the Bank of England to a 100 percent reserve requirement in gold for notes issued above £14 million. It forbade new issuers of notes in England and Wales, froze the existing note issues of the country banks, and required the country banks to cease issuing notes if they opened branches in London. The attraction of London branches was such that by 1921 the last note-issuing country bank ceased to issue notes. The Bankers (Ireland) Act imposed restrictions on Irish banks similar to those on English and Welsh banks, with the privately owned Bank of Ireland rather than the Bank of England as the privileged bank. The Bank Notes (Scotland) Act forbade new issuers in Scotland and subjected existing issuers to a 100 percent reserve requirement in gold for notes issued in excess of their recent average. The overall result of the legislation of 1844-45 was that the Bank of England obtained control of the monetary base of the whole of Britain despite concessions to other note-issuing banks, concessions whose importance declined as the economy grew and demand for notes rose.

Because England was the most advanced economy of the time and also had the strongest group of economists, its example was highly influential. A financial crisis in 1847 showed that the Currency

School's ideas for limiting the note issue of the Bank of England were potentially disastrous if not relaxed in a crisis, but the Bank of England's note monopoly persisted even so. Other countries imitated England, often down to the details of legislative provisions, in establishing central banks with a monopoly of note issue. Conferences of the League of Nations in Brussels in 1920, Genoa in 1922, and London in 1933 issued statements recommending that central banks be established in all relatively advanced economies that did not already have them. The Great Depression also contributed to the decline of free banking in the countries that still had it, by leading to demands that governments be more activist in monetary policy to try to combat the depression (Schuler 1992: 37).

Cases Where Multiple Note Issuers Exist Today

Free banking was replaced by systems of government monopoly note issue, especially central banking, not generally because it performed poorly, but because it did not provide opportunities for monetary management and generating government revenue by creating inflation (Schuler 1992: 30–39). The last historical case of free banking ended in South-West Africa (now Namibia) in 1962. There are, however, four places today that still have multiple local issuers of notes: Scotland, Northern Ireland, Hong Kong, and Macao.

The Scottish and Northern Irish note issuers are holdovers from the British legislation of the 1840s. Scotland and Northern Ireland traveled a different path from England and Wales because British legislation acknowledged their distinctiveness; even today, it does not enforce absolute uniformity in banking or in some other areas. In Scotland, notes are issued by the Bank of Scotland (now part of Lloyds Banking Group), the Royal Bank of Scotland, and the Clydesdale Bank (now a subsidiary of National Australia Bank). In Northern Ireland, notes are issued by the Bank of Ireland, the Northern Bank (now a subsidiary of Danske Bank), the Ulster Bank (now a subsidiary of Royal Bank of Scotland), and First Trust Bank (earlier the Provincial Bank of Ireland, now part of Allied Irish Banks). Banks in Northern Ireland formerly issued notes in the south also, but after the south became independent from the United Kingdom in 1922, it established a government monopoly note issue (Ireland, Currency Notes Act 1927).

In Hong Kong, the existence of multiple issuers is likewise an echo from the days of free banking. Hong Kong had free banking until 1935, when China abandoned its centuries-old silver standard because the U.S. silver purchase program of the time was causing unwanted currency appreciation. Hong Kong followed China off the silver standard and, as China initially did, linked its currency to the pound sterling. To do so, Hong Kong established a currency board, but unlike currency boards elsewhere, Hong Kong's did not issue its own notes. Rather, it let the existing note-issuing banks continue to issue, but required them to hold government-issued Certificates of Exchange as backing for new issues of notes. To obtain the certificates, banks had to surrender an equivalent amount of sterling.[2] Two of the three banks that issued notes in 1935 survive and continue to issue today: HSBC (the Hongkong and Shanghai Banking Corporation) and Standard Chartered Bank. In addition, the government of Hong Kong allowed the Bank of China to become a note issuer in 1994 in recognition of the bank's large local market share and as a way of acknowledging China's growing influence in the years leading up to Britain's handover of Hong Kong to China in 1997. The Hong Kong Monetary Authority does issue notes today, but only in the smallest denomination of Hong Kong $10, equal to US$1.28.

In Macao, the Banco Nacional Ultramarino (now owned by the Portuguese bank Caixa Geral de Depósitos) had issued notes since its days as Portugal's semiofficial colonial bank. As in Hong Kong, the government allowed the Bank of China to become a note issuer, in 1995, in recognition of the bank's large local market share and as a way of acknowledging China's growing influence leading up to Portugal's handover of Macao to China in 1999. The two banks issue notes under requirements like those of Hong Kong. Macao's central bank links its currency to the Hong Kong dollar. Unlike the case in Hong Kong, in Macao notes are apparently printed and expected to circulate in equal amounts for each bank.

None of these cases are examples of free banking as it existed in previous centuries. Competition among the multiple note issuing banks is limited. To a large extent they are merely agents for the monetary authorities. The banks are required to hold reserves at the

[2]Decades later, Hong Kong switched to the U.S. dollar as the anchor currency, but otherwise the system remained unchanged.

monetary authority equal to notes in circulation, and in Scotland, Northern Ireland, and Hong Kong, governments have in recent years eliminated the "fiduciary" (unbacked) issues that the law originally allowed to note-issuing banks. The banks do not even pay for the note-printing themselves; the monetary authorities bear the costs. The notes are no more costly to the banks than a pure government issue would be, though, and they yield two benefits that a pure government issue would not. One is that the notes do not count as issued, and thus do not require reserves to back them, until they are out of the banks' hands into circulation, whereas banks must give up assets for government-issued notes when they receive the notes, even if the notes just sit in a vault and never enter circulation. The other, less important benefit that banks receive from issuing notes with their own names on them is a modicum of free advertising.

Cases Today Closer to Historical Free Banking

Cases that are closer to free banking do exist today, as de facto instances of competition within frameworks of supposed de jure monopoly of the national currency. Many countries have unofficial dollarization, in which people widely use a foreign currency, most often the U.S. dollar, as a supplement to the local currency. In very small countries, dollarization is often a result of the tourist trade: locals find that accepting dollars or other foreign currency notes brought in by tourists increases patronage by tourists. Locals then start using dollars among themselves. In larger countries, dollarization results from distrust of the local currency as a store of value. Dollar notes pay no interest but may suffer much less loss of purchasing power over time than the local currency and are harder for the local government to block or confiscate. Governments that establish some credibility for their currencies can reverse dollarization (Cartas 2010).

There are also cases of locally issued currencies that the authorities tolerate because they are not intended for wide circulation and compete only in a minor way with government-issued currency. For example, Brazil has 63 local currencies, issued in small towns and poor neighborhoods scattered across the country. These currencies are only accepted locally and their purpose is to encourage small-scale local commerce (Prada 2011). Similarly, the Berkshires region of Massachusetts has BerkShares, a local currency accepted by 370 businesses (BerkShares 2011). BerkShares are pegged to the dollar, and residents can purchase them at a 5 percent discount from one of 12 branches of five local participating banks.

Although none of the current cases of plural issue, dollarization, or local currencies that we have discussed have the freedom of entry and robust competition among note brands characteristic of the freest free banking systems, they do offer some evidence about how people would likely react were free banking to re-emerge today. The presence of multiple note brands would be unlikely to cause any operational problems for the public. Where people use multiple note brands, they move back and forth between brands easily, just as they do with multiple credit card brands or with checks issued by multiple banks. Problems with notes issued by "wildcat banks" in 19th century America, which people sometimes adduce as evidence against competitive note issue, were the result of too little competition, not too much. Wildcat banks arose because regulations prevented large, reputable banks from branching widely and taking market share from less reputable banks. Moreover, losses to note holders from wildcat banks were small in a national context, though sometimes locally significant (Rockoff 1975: 17–22).

Benefits of Competitive Note Issue under Central Banking

Even under central banking there is a case for competitive issue of notes. Contrary to David Ricardo's view that competitively issued notes are a kind of money, if they are convertible at a fixed rate into some external asset, they are in fact a kind of credit. That is, rather than being a base money, which constitutes final settlement of a debt within the national monetary system, competitively issued bank notes are credit, widely used for intermediate settlement of debts but not constituting final settlement. Perhaps the clearest evidence that competitively issued notes are credit rather than base money is that banks issuing notes competitively have not accepted one another's notes as final settlement, but have instead exchanged them through clearing procedures and settled the balance in gold or other "outside" assets.

Competitive note issue has the possibility of improving central bank control of the money supply. Where the monetary authority has a monopoly of note issue, notes serve two distinct functions that need not necessarily be combined. To the public, notes are mainly hand-to-hand currency. People use notes rather than checks or electronic transfers for small payments because notes do not require the involvement of the banking system or an electronic infrastructure, and they offer greater anonymity. Notes tend not to be used for large payments mainly because of their bulk, which reduces their anonymity and raises the risk of theft.

To banks, notes issued by a monetary authority are a form of reserves. Notes are interchangeable with deposits at the monetary authority as bank reserves. Banks prefer to hold reserves in deposit form because there are no storage costs and some monetary authorities pay interest on deposits. Banks only keep notes to satisfy customers' demands to convert deposits into notes.

When members of the public want notes, they typically do not want bank reserves (the monetary base). Rather, they simply want a means of making hand-to-hand payments. As we have discussed, historical experience with free banking and recent experience with arrangements that have elements of competition like those of free banking strongly suggest that many members of the public would be willing to accept bank-issued notes. They cannot do so in most countries because existing laws grant a monopoly of issue to the monetary authority.

Because monopoly-issued notes combine the functions of hand-to-hand currency and reserves, changes in the demand for currency affect the supply of reserves. There are regular seasonal peaks in demand for currency, such as before Christmas, and there are irregular peaks from events such as natural disasters. Under monopoly note issue, if the monetary authority does not try to increase reserves during times of peak demand for currency and reduce reserves during times of slack demand, it risks making interest rates and economic activity more volatile. Short-term interest rates may rise quite high during times of peak demand, throwing some borrowers into bankruptcy and creating a financial panic. Every central bank tries to accommodate such fluctuations in demand. Currency boards do not, which helps explain why banks in currency board systems are so often branches of large international banks: the parent banks provide lower-cost liquidity than the local money market can during times of peak demand for currency and other peaks in demand for credit.

Allowing banks their own notes would simplify matters for them and for the monetary authority. Banks would not have to hold extra reserves during times of peak demand for currency. Even in the extreme case where customers wished to convert all their deposits into notes and then reconvert them into deposits, if they were willing to accept the bank's own notes, the total liabilities of the bank would be unchanged, as would its need for reserves. Only the form of the liabilities would change.

For the monetary authority, there would be no more need to add and withdraw reserves to anticipate changes in the demand for notes. It would be one less thing to worry about in conducting monetary policy (cf. Selgin 1988: 111–19). The correlations between the monetary base and the outcomes that monetary authorities care about might become higher.

The great disadvantage from the monetary authority's perspective is that to the extent bank-issued notes displaced its notes, it would lose the profits of monopoly issue. The profits would tend not to accumulate to banks, but to be passed along to consumers in the form of higher quality and lower cost of bank services, and perhaps even as explicit interest on notes (as Goodhart 1986 and McCulloch 1986: 74–75 have proposed). In some countries, the profits are so large that governments consider them an important source of revenue, but in principle, it is possible to raise just as much revenue from other taxes that distort economic activity less, or to cut spending.

Laws on the Right to Issue Currency

In surveying laws on note issue in the United States, Schuler (2001) found that, most likely through legislators' inadvertence, note issue was legal for federally chartered banks and, depending on state laws, for state-chartered banks. To our surprise, no U.S. bank has yet taken the hint and tried to issue notes. Here we extend the survey to almost every nation or dependency in the world, more than 240 jurisdictions. We searched the websites of monetary authorities, constitutions, and legal databases to determine whether the law granted a government body a monopoly of issuing notes and coins, and what the law said about the legal tender status of the notes and coins. Our search, although not exhaustive, was sufficiently detailed that we think we have seen the great bulk of the relevant laws.

Table 1 summarizes our results. It is based on passages of laws that we have copied, with full citations, in a background document available from us on request. Since we are economists and not lawyers, and certainly not experts on more than 240 legal systems, we present our findings with the warning to take them with caution. For the

TABLE 1
Places Where Competition in Issuing Notes or Coins May Be Allowed

	Competition allowed in		
Place	Notes	Coins	Remarks
Bonaire, etc.	Maybe	Maybe	Dollarized (USD)
Cambodia	Maybe	Maybe	
Ecuador	Maybe	No	Dollarized (USD); own coins
Ethiopia	Maybe	Maybe	
Gibraltar	Maybe	Maybe	
Guernsey	Maybe	Maybe	
Hong Kong	Yes	No	See discussion in main text
Japan	Maybe	Maybe	We cannot read Japanese texts
Jersey	Maybe	Maybe	
Kiribati	Maybe	Maybe	No local monetary authority
Laos	Maybe	Maybe	
Latvia	Maybe	Maybe	
Macao	Yes	No	See discussion in main text
Malta	No	Yes	Exemption for non-euro coins
Palestinian Authority	Yes	Yes	Dollarized (ILS, JOD)
Panama	Yes	Maybe	Dollarized (USD); own coins
Pitcairn Islands	Maybe	Maybe	Dollarized (NZD); collectors' coins
Timor-Leste	Yes	No	Dollarized (USD); own coins
Tuvalu	Maybe	Maybe	Dollarized (AUD)
UK: Scotland	Yes	No	See discussion in main text
UK: Northern Ireland	Yes	No	See discussion in main text
USA and territories	Yes	No	1% annual tax on bank-issued notes
Zimbabwe	Yes de facto	Yes de facto	Dollarized (USD, ZAR); de jure monopoly

Notes: These findings are not legally definitive. In some cases, applicable laws were hard to locate. In all other countries, issuance of notes and coins is definitely or highly likely a government monopoly.

AUD = Australian dollar; ILS = Israeli new sheqel; JOD = Jordanian dinar; NZD = New Zealand dollar; USD = U.S. dollar; ZAR = South African rand.

Sources: National constitutions and laws concerning currency. A file containing quotations and electronic source citations for more than 240 jurisdictions is available from the authors on request.

most part, we conducted our research online. For some of the jurisdictions the table lists, the corpus of local laws available online was scarce, and a full investigation would require on-site research.

About two dozen jurisdictions have definite or potential legal openings for private note or coin issue. Most of the jurisdictions are small, both geographically and economically. The exceptions are the United States, the United Kingdom, and Japan. We have already mentioned the United States and the two regions of the United Kingdom where plural note issue currently exists: Scotland and Northern Ireland. In Gibraltar, Guernsey, and Jersey, which are British dependencies but not part of the United Kingdom, there appears to be freedom for banks to issue local currencies. Governments in all three jurisdictions issue their own notes, and Gibraltar issues coins as well. Bank of England (central bank) currency is legal tender in Guernsey and Jersey. In Japan, the legislative language, as translated, is ambiguous, merely stating that the Bank of Japan "shall" issue banknotes and that these notes are legal tender.

As in Japan, central banks in Ethiopia, Laos, and Latvia have the right but apparently not the exclusive right to issue notes and coins. In Cambodia, the law says only that the central bank has a monopoly on issuing notes and coins in the national currency unit.

Ecuador is dollarized, and the central bank is prohibited from issuing new notes but does issue coins. While there is apparently no law prohibiting private issue of local banknotes, the relative stability of the U.S. dollar likely explains the absence of such competition. Panama is likewise dollarized, with a "central bank" that issues only coins, though does not appear to have a monopoly of coinage. Timor-Leste is dollarized, and U.S. coins are legal tender alongside local coins, which are a local monopoly. In Zimbabwe, the central bank has a de jure monopoly on locally issued currency, but hyperinflation drove local currency out of circulation, leaving the country using foreign currency de facto, with the U.S. dollar and the South African rand being the most widely used currencies. Currency competition in Zimbabwe accordingly takes the form of competition among currencies issued by foreign central banks; local free banking, which would involve note issue by Zimbabwean banks (such as the country had in the early 20th century), remains illegal. In the territories of the Palestinian Authority, as in Zimbabwe, competition takes the form of multiple foreign currencies, in this case the Israeli new shekel and the Jordanian dinar. The law is looser than in Zimbabwe, in that it merely states that the embryonic central bank will issue the national currency and coins "in due course." Bonaire, Saba, and Saint Eustatius switched from using the Netherlands Antilles guilder to using the U.S. dollar as their currency at the start of 2011, and their law does not appear to specify any monopoly of issuance. Kiribati and Tuvalu have no local monetary authorities, and use the Australian dollar. The Pitcairn Islands use the New Zealand dollar, but the government issues coins for collectors as a source of revenue.

Finally, for the 17 member states of the European Union (EU) that use the euro as their currency, EU law indicates that the European Central Bank has the exclusive right to authorize the issue of euro notes and coins, but Malta provides a specific opening for minting certain non-euro coins.

Legal Tender Laws

Even where a monetary authority has a monopoly of issuing currency in the national currency unit, there may be other openings for competition in currency. Different ways of interpreting legal tender laws may provide such an opening. The way most people think about legal tender combines several concepts. One is that that in contracts that do not specify payment in a particular currency, currency with legal tender status has the power to discharge debts fully. Another is that the government itself must accept a particular currency in payment, especially payment of taxes. Most governments accept only their own currency for payment of taxes, but there have been exceptions where governments have specifically demanded some payments in precious metals or "hard" foreign currency in cases where their own currency has not been well accepted in international markets. Yet another concept involved in legal tender is specifying what currency private parties are legally permitted to use among themselves. In some countries, laws specify that wages must be paid in national currency, as a way of creating demand for it that otherwise might not exist. Finally, there is the concept of forced tender—namely, that payments in the national currency fully discharge debts even where the parties have previously specified another currency, and that with limited exceptions, contracts in foreign currency are void.

We find that legal tender laws, while common, are less common and more ambiguous than rules granting monetary authorities monopolies of currency issue. For example, among the 17 countries that use the euro as their currency, the Treaty on European Union indicates that euro notes have legal tender status, but no such language exists for euro coins. Instead, there are multiple recommendations by the European Union that acknowledge the differing interpretations among the member states of the legal tender status of the euro. The recommendations specify how member states should enact specific legal tender laws for both euro notes and coins. Most member states do not have specific legal tender laws for notes and coins. The three that clearly do are Germany, Estonia, and Cyprus. Of the remaining ten member states that do *not* use the euro as their currency, at least four have legal tender laws. Lithuania and Latvia, for example, do not appear to have legal tender laws, while Denmark has legal tender laws on notes but not coins.

The potential opening for bank-issued currency in such cases is for it to be treated as a kind of foreign currency. So, perhaps a Hungarian bank establishes a subsidiary that issues notes in the United States, denominated in U.S. dollars, euros, or Hungarian forints, and pays out the notes in Hungary, as it would pay out central bank-issued dollars, euros, or forints when requested by customers. Even if such "foreign" bank-issued currencies are legal, though, their lack of legal tender status in the sense of being acceptable as a default currency among private parties or for payments to the government may be sufficiently disadvantageous that they cannot develop the economies of scale and network effects in currency use to offer much competition to the monetary authority.

Conclusion

The United States, and by extension the territories subject to U.S. law, are the only jurisdictions we have found where issuance of notes by banks is currently both clearly legal and wide open to new entrants. In the four jurisdictions where multiple banks already issue notes—Hong Kong, Macao, Scotland, and Northern Ireland—new entrants must be licensed by the government in the first two cases and new entrants are prohibited in the last two cases. In a number of other jurisdictions, such as those that officially use the U.S. dollar as currency, issuance of notes by banks is possibly legal, but except in Panama, where dollarization dates from 1904, the laws were written when the Federal Reserve was the only issuer of U.S. dollar paper money and may contain an implicit expectation that the U.S. currency to be used locally must be government issued.

As we have explained, competitive issue of notes is characteristic of free banking, a system in which there is no centralized control of reserves (the monetary base) within the national monetary system. Competitive issue is also compatible with central banking, though, given that a central bank can still exercise control over a monetary base that constitutes final settlement of debt within a national monetary system.

Why hasn't any bank tested the waters of competitive note issue in the United States? When we posed the question while presenting this paper at the Cato Institute's 29th Annual Monetary Conference, we hypothesized that there are regulations that might hinder note issue, or that banks do not consider it worth the effort because they think the federal government would officially remonopolize note issuance if the possibility of competition emerged. A member of the audience from a Washington law and lobbying firm in effect confirmed our suspicions by explaining that for some time her firm has been working for a client precisely on these issues.

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