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Legal Tender

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Abstract

The legal foundation of the monetary system is the law of legal tender. The "legal tender" concept is used in models to describe almost anything except for what it really means in actual laws. Such errors prevent an accurate evaluation of the importance of this legal status. This note explains in simple terms what "legal tender" really means.

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1. Introduction

Monetary theorists have recently started labeling the money they model as “legal tender.” The meaning of this concept changes from paper to paper. In Lotz (2004), p. 967, it is the only money that sellers are allowed to accept. In Selgin (2003), p. 160, buyers can force sellers to accept it (but they can agree on another medium of payment). In Lotz and Rocheteau (2002), p. 568, money is accepted if and only if it is legal tender. Shy and Tarkka (2002) agree with Selgin (p. 303), but add that sellers can also force buyers to use it (p. 308). Alternatively, they claim that it must be used by default if the buyer and seller do not agree on the medium of payment during negotiations (p. 308). In Sargent and Velde (2002), p. 368, the cash-in-advance constraints seem to imply that legal tender money is the only medium of payment that buyers are allowed to offer. The same goes for the money in the utility function of Sussman and Zeira (2003), p. 1777.

All these papers are wrong in relating the money they model to the legal tender concept. Thus, applying their results to real legal tender currencies can be misleading. Some textbooks are also in error[1]. In fact, the legal tender concept has *nothing* to do with the spot transactions that dominate economic theory. Its practical importance as the legal foundation of the monetary system, if there is one, comes from its implication on tax payments. The goal of this note is to explain to those not trained in law why this is the case. Section 2 provides the legal explanation. Section 3 answers Frequently Asked Questions. Section 4 comments on the relevance to economics and explains why a model of legal tender is beyond the scope of this note.

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[1] See Lipsey, Courant and Ragan (1999), p. 581. Barro (1993), p. 96, mentions “legal tender” but does not explain what it means. Case and Fair (2003), p. 481, exclude tax payments from the legal tender law. Mankiw (2000), p. 156, only mentions an unspecified “government decree” (also see Auerbach and Kotlikoff, 1998, p. 175).

2. What is Legal Tender?

In law, a commercial contract is born when the parties agree on some necessary terms. In a contract to sell goods the quantity is a necessary term. For example, an agreement to "sell apples at the price of one dollar per pound, tomorrow, in my store," is not a contract and cannot be enforced in court, because the quantity is undetermined. Legislatures worldwide resolved long ago that specifying the medium of payment is *not* a necessary term. Thus, if the above example is modified by adding the quantity term "ten pounds of apples," then it is a valid contract, even though the medium of payment (as opposed to the unit of account) is undetermined.

However, this raises a potential problem. A contract has been created, and each side now has an obligation. How should the buyer's obligation to pay ten dollars be discharged? Actually, almost anything on which the parties mutually agree is acceptable (Bank of England, 2008, Bank of Canada, 2008, Williston, 2003, vol. 28, pp. 752-3, 778). Examples include: Ten one-dollar bills, a check, peso bills according to some exchange rate, or a watch which the seller estimates as worth at least ten dollars. This is just one aspect of the freedom of contracts, which is a fundamental building block of capitalism. Legislatures have outlawed very few media of payment, such as gold (in post Great Depression legislation), or illegal drugs (which could conflict with the public interest). It does not matter if the agreement regarding the medium of payment is part of the contract, or made separately after the contract is created.

The main goal of contract law is to solve disagreements *after* a contract is created (for instance, where the terms are vague and give rise to a dispute). Suppose that the buyer in my example, where no medium of payment was specified, offers to pay in a ten dollar bill, but the seller rejects it because he wants pesos. Given that a contract was formed and payment was

tendered but rejected, can the seller sue the buyer in court for breach of contract due to this non-payment? What if the buyer offers one thousand one-cent coins, or a ten-dollar watch?

"Legal tender" is an object that confers a right on the payer. If the buyer in my example offers the correct quantity of anything that has been declared by law to be legal tender, then the seller's lawsuit fails. The buyer may be asked to deliver the proffered payment to court, which the court would offer to the seller. The buyer is then off the hook, having fully performed his contractual obligation of making payment (Williston, 2003, vol. 28, pp. 746, 805-14, Bank of England, 2008, Reserve Bank of Australia, 2008). On the other hand, any object that is *not* legal tender will not give the buyer such peace of mind. Judgment will be entered against the buyer for breach of contract if the seller delivered the goods and rejected a proffered payment from the buyer that did not constitute legal tender. For this very practical purpose, every country specifies which objects are considered legal tender for debts that are subject to its contract law. Typically, the government gives this status to currency it issues itself, but this is not necessary.

Since legal tender laws protect buyers, sellers may want to protect themselves from these laws. Usually, it is remarkably easy to do so. *Before* the necessary details of the contract are finalized (that is, before contract formation), the seller can specify the medium of payment. If the parties agree to a specific medium of payment, then this term will become part of their contract (Board of Governors of the Federal Reserve System, 2008, Reserve Bank of Australia, 2008). If that medium of payment is not outlawed by *other* laws (for example, voided as a matter of public policy, as in the illegal drug example above), then legal tender laws will not apply. If, on the other hand, there is disagreement about the medium of payment, then a contract fails to come into existence. Going back to my example, suppose that *before* agreeing on the quantity of apples to be delivered, the seller states (e.g., by posting a sign near the cash register) that he must be

paid in pesos. If the buyer refuses and this medium of payment is not acceptable to both parties, then a contract is not formed, and nobody has any contractual obligation at all.

Another easy way to avoid legal tender laws is to use a different unit of account. The legal tender law of the United States, which gives a legal tender status to dollars in the form of coins and bills, cannot apply to contracts that specify payments in pesos or potatoes.

The conclusion is that sellers are not really forced to accept legal tender money if they are slightly cautious. They only need to state in advance that they want to be paid in a different object, or use a different unit of account. The websites of some central banks are honest about this limited legal status of their money (e.g., Board of Governors of the Federal Reserve System, 2008, Bank of England, 2008, Bank of Canada, 2008, Reserve Bank of Australia, 2008). The role of the state, after declaring what is legal tender, can be described as passive and negative: To dismiss a creditor's lawsuit if the debtor offers the right quantity of legal tender. A legal tender law *never* results in the state affirmatively prosecuting a buyer or a seller for using another currency or for rejecting the legal tender in a spot transaction. Other laws might do that, but they mostly exist in totalitarian regimes.

Certain monetary obligations are created not by contract, but by statutory or common law. These obligations invoke some of the practical issues of contractual obligations. If a would-be taxpayer delivers her used car (valued at the outstanding amount of taxes owed) to the Internal Revenue Service as her tax payment, what can the IRS do? Must it accept the car, or can it sue the taxpayer for not paying the tax? [2] What about paying a parking ticket with foreign currency, or vengefully paying alimony with small change?

[2] This actually happened (United States, 2003, 31 § 5103, p. 27, note 17).

For this reason, although the legal tender concept originates in contract law, it has been universally extended to include all non-contractual obligations as well.[3] As with contracts, the legal tender law is irrelevant if the tax authority and the taxpayer agree on another medium of payment, such as a check or a credit card.

3. Frequently Asked Questions

1. How can the legal status of money in the U.S. be summarized in one paragraph?

Taking into account other relevant laws, I suggest the following: First, all Federal Reserve notes and U.S. coins are legal tender for all dollar-denominated obligations. This means that contractual creditors who do not specify another medium of payment in their contracts, as well as all tax authorities and courts (federal, state and local), cannot reject a payment made using these objects. In addition, many banks (national banks and members of the Federal Reserve System) must accept Federal Reserve notes in all transactions. Anyone else can reject these notes and coins. Practically nothing else is legal tender, and thus anything else can be rejected by anyone in any transaction. These notes and coins are redeemable by their issuers only for other notes and coins, possibly of different denominations.

2. Is there any other legal tender in the U.S.?

Answer: Not really. According to United States Code 31 § 5103, “United States coins and currency (including Federal Reserve notes and circulating notes of Federal Reserve Banks and national banks) are legal tender for all debts, public charges, taxes, and dues.” The notes of banks are too rare today to be seriously considered.

3. Why must banks accept legal tender?

[3] The word “debt” in most legal tender laws includes any tax, while “creditor” includes any tax-collecting agency (Nussbaum, 1950, p. 49, 58, 139, Mann, 1982, p. 52, 80-100, European Union, 1998, 2005, especially Articles 1, 8).

Answer: A bank is not a regular business. It is carefully chartered and regulated by the government, and generally it has special privileges as well as special obligations.

4. The writing on Federal Reserve notes mentions only "debts" but not taxes. Which is the correct one?

Answer: The writing on the notes is a relic from a time when courts interpreted "debt" as any obligation (United States, 2003, 31 § 5103, p. 21). Nobody bothered fixing it, but it is the United States Code that legally matters.

5. Federal tax forms order taxpayers: "Do not send cash." Doesn't this contradict the legal tender law?

Answer: It obviously does, although virtually all taxpayers obey this request anyway for their own benefit (if you send your tax payment in cash, the mailman might steal it without a trace). For the IRS, this order is a weakly dominant strategy: That is, it benefits the IRS if taxpayers obey, and in the unlikely case that a taxpayer does send cash, the IRS can simply accept it upon arrival, with no harm done.

6. Can I pay a large debt in small change?

Answer: That is what the United States Code implies. Legal tender laws of some other countries allow creditors to reject such payments (European Union, 1998, [UK] Ministry of Justice, 2008, Reserve Bank of Australia, 2008).

4. Conclusion

Since it is so easy to avoid the applicability of legal tender laws in trade, do they matter at all for helping the government's currency to circulate? The answer is possibly yes, because of taxes. When the law confers legal tender status only on the government's currency, it implicitly allows the government to reject any other medium of payment. Indeed, the government almost always

rejects anything other than its issued cash or financial instruments that are redeemable in this cash (i.e., checks and credit cards). By doing so, the government artificially creates a demand for the legal tender objects and makes them valuable (Smith, 1776). Taxpayers must obtain legal tender objects in order to pay their taxes. While denominating a contract in foreign currency makes the legal tender law irrelevant for your contract, receiving your entire income in foreign currency will not exempt you from paying your taxes *in dollars*. Taxpayers are therefore willing to provide goods and services for the legal tender objects. This can result in their circulation as media of exchange (Lerner, 1947).

A similar, temporary demand for a new currency can be created by applying a legal tender law retroactively to pre-existing contracts. This happened with the Civil War greenbacks, and invoked a constitutional firestorm. Creditors who did not expect this first U.S. paper money failed to specify “gold” in their contracts. Debtors were happy to pay debts with paper greenbacks instead of gold, and their demand for the greenbacks gave the greenbacks value.

A correct model of legal tender and comparison to an incorrect model are beyond the scope of this note. One reason is the plethora of incorrect interpretations offered in the literature. No single incorrect interpretation is significantly more common than others. Another reason is that legal tender laws themselves refer to many types of obligations (contractual debts, taxes, fees, fines, alimony, damages, etc.). Finally, correct models of the important types of obligations already exist. Although they did not use the label “legal tender,” Starr (1974, 2003) correctly modeled legal tender for taxes, while Freeman (1996) modeled legal tender for contractual debts.

References

Auerbach. A.J., Kotlikoff, L.J. 1998. *Macroeconomics: An Integrated Approach*. Second edition. Cambridge: MIT Press.

Bank of Canada. 2008. "Bank Notes: Law enforcement." Available at http://www.bankofcanada.ca/en/banknotes/law.html

Bank of England. 2008. "Frequently Asked Questions." Available at http://www.bankofengland.co.uk/banknotes/about/faqs.htm

Barro, R.J. 1993. *Macroeconomics*. Fourth edition. New York: John Wiley and Sons.

Board of Governors of the Federal Reserve System. 2008. "Frequently Asked Questions." Available at http://www.federalreserve.gov/generalinfo/faq/faqcur.htm#2

Case K.E., Fair, R.C. 2003. *Principles of Economics*. Upper Saddle River: Prentice Hall.

European Union. 1998. *Council Regulation No. 974/98*. Available at http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31998R0974:EN:HTML

European Union. 2005. *Council Regulation No. 2169/2005*. Available at http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2005:346:0001:01:EN:HTML

Freeman, S. 1996. "Clearinghouse Banks and Banknote Overissue." *Journal of Monetary Economics* 38: 101-115.

Lerner, A.P. 1947. "Money as a Creature of the State." *American Economic Review* 37: 312-7.

Lipsey, R.G., Courant, P.N., Ragan, C.T.S. 1999. *Economics*. Reading: Addison-Wesley.

Lotz, S. 2004. "Introducing a New Currency: Government Policy and Prices." *European Economic Review* 48: 959-982.

Lotz, S., Rocheteau, G. 2002. "On the Launching of a New Currency." *Journal of Money, Credit, and Banking* 34: 563-588.

Mankiw, N.G. 2000. Macroe*conomics*. Fourth edition. New York: Worth Publishers.

Mann, F.A. 1982. *The Legal Aspect of Money*. Fourth edition. Oxford: Clarendon Press.

Ministry of Justice. 2008. *Currency Act 1983*. Available at http://www.statutelaw.gov.uk

Nussbaum, A. 1950. *Money in the Law: National and International*. Brooklyn: Foundation Press.

Reserve Bank of Australia. 2008. "Legal Tender." Available at http://www.rba.gov.au/CurrencyNotes/LegalFramework/legal_tender.html

Sargent, T.J., Velde, F.R. 2002. *The Big Problem of Small Change*. Princeton University Press, Princeton.

Selgin, G. 2003. "Adaptive Learning and the Transition to Fiat Money." *Economic Journal* 113: 147-165.

Shy, O., Tarkka, J. 2002. "The Market for Electronic Cash Cards." *Journal of Money, Credit, and Banking* 34: 299-314.

Smith, A. 1776. *The Wealth of Nations*. 1952 edition. Chicago: William Benton.

Starr, R.M. 1974. "The Price of Money in a Pure Exchange Monetary Economy with Taxation." *Econometrica* 42: 45-54.

Starr, R.M. 2003. "Why is There Money? Endogenous Derivation of 'Money' as the Most Liquid Asset: A Class of Examples." *Economic Theory* 21: 455-474.

Sussman, N., Zeira, J. 2003. "Commodity Money Inflation: Theory and Evidence from France 1350-1436." *Journal of Monetary Economics* 50: 1769-1793.

United States. 2003. *United States Code Annotated*. St. Paul: West Publishing.

Williston, S. 2003. *A Treatise on the Law of Contracts*. Fourth edition, by R.A. Lord. Rochester: Lawyers Cooperative.

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