Banks and Banking

David Howden
Saint Louis University – Madrid Campus
Email: dhowden@slu.edu

The treatment of money, and especially banking, should seem more than a little odd to the student of economics. An inordinate amount of attention is afforded to one good – money – while no other good is discussed in any more than a cursory way. All curricula include a class on "Money and Banking", making banking the only line of business to qualify for specific examination. No classes exist for, e.g., automobiles and car manufacturers, haircuts and barbers, or economic theory and economists. Although it is widely recognized that money is special, there is no explanation for why banks are given such seemingly undue attention.

Within the economics literature there is a good amount of healthy debate concerning what it is, exactly, that banks do. This literature, focused as it is on answering the broad question of "why banks?" should also strike the reader as quite strange given there is no such literature one "why barbers?" or "why economists?" Everyone seems to understand what every other business does with one exception: banks.

There are four general theories prevailing to explain why banks exist. James Tobin was the first to address the question, conjecturing that in an unregulated environment there is unlikely to

be a clear distinction between banks and other portfolio managers (Tobin 1963). Thus if banks are special it is because of how they are regulated, and not due to the specific type of business they pursue. Fischer Black treats bank deposits as low-risk portfolio assets, making them not so dissimilar from other financial intermediaries with perhaps the distinction that banks offer deposits which become the standard against which the riskiness of all other portfolio assets is gauged (Black 1970). Perhaps banks are unique because they provide accounting services as wealth is exchanged from person to person, and also allow for an exchange between different forms of wealth (e.g., deposit to currency), as in Fama (1980). Fama (1980: 48) also offers that banks are special because they offer special services that pays its return in kind, as opposed to other financial intermediaries. Perhaps, finally, banks are *sui generis*. They are special for some various reasons that we cannot define exactly, but we know that attention must be given to these financial intermediaries that issue deposits and use the proceeds to purchase securities (as in Freixas and Rochet 1997).

All of these explanations beg the question in assuming what needs to be proven. Legal peculiarities cannot explain banks – instead a specific theory of banking would explain why this line of business is subject to different laws than others. Offering maturity and risk transformation services cannot explain why banks exist since this is a general line of business that many, if not all, financial intermediaries pursue. Fama (1980) offers what is perhaps the most defensible rationale for why banks are unique, but even here we find other financial intermediaries offering services in kind. Consider that an oil refiner selling oil forward, and the purchaser taking physical delivery. Has the refiner, or whoever intermediated the trade, not delivered a product in kind?

Perhaps a more productive starting point is to isolate the unique functional aspects of the business of banking. Instead of rushing in to answer the question of "why banks" we should start by determining what it is, exactly, that "banks do".

The literature has narrowed down banking functions to the following six areas.

1. Monitor and enforce contracts due to the economies of scale inherent in this role (Diamond 1984).

2. Similar to 1. above, banks act as third-party "screeners" to solve the problem of asymmetric information and adverse selection problems of depositors (Terlizese 1988).

3. Banks specialize in matching illiquid borrowers with liquid lenders or depositors 4. (Diamond and Dybvig 1983).

4. Banks combine liquidity with credit facilities (Fama 1985).

5. Banks supply information to the capital markets about the behavior of borrowers (Fama 1985).

6. Economies of scale motivate specialization in lending and saving services (Goodfriend 1991).

While useful as descriptors and potential explanations of the activities that banks typicaly specialize in, these common functions lack a theory for why it is that banks and not other financial intermediaries specialize in these services.

Since money is the root of all banking, any analysis of banking must be grounded in an understanding of what makes money special. In the common story of the emergence of money, high transaction costs from the double coincidence of wants problem motivate traders to exchange goods using an intermediary medium (Menger 1892). This intermediary good will be chosen initially because it is widely demanded for the utility it can bring to its owner. In other words, the good adopted initially will be chosen due to its use value. While this use value is the reason why the good is demanded initially, over time as acceptance of this intermediate good increases it will become less valuable for the utility it can provide the holder and in its place its value in exchange increases. This exchange value will come to take an increasing portion of the total value that the good has. The advent of paper money takes this process to its full conclusion as there is no longer any value in using the good directly, and all value comes in the ability to exchange it to another.[1]

The fact that paper money will have only exchange value is important as it means that we can treat money differently than other goods. All other goods have a value that derives from how well it is able to satisfy the needs of the individual. Since only the individual knows his needs, the value that the good gives to the demander must be subjective. Money differs since we know that the good serving as money will only be useful to exchange for other goods. As a result, the difficulties that the subjectivity of value bring when assessing other goods does not apply to money (Howden 2016).[2]

With other goods, discussion of substitutes must always be constrained to imperfect substitutes. This is a consequence of the subjectivity of use value. While an automobile, for example, may have a certain use value to the demander, all other goods can be substitutes for it *though only of varying degrees*. Thus a truck may serve as a good, though imperfect substitute for a car. And a motorcycle may be an even more imperfect substitute yet (though it is still a substitute).

Since money only has one objectively definable source of value – exchange – it is possible to discuss perfect substitutes for it. These are goods that serve the medium of exchange function as well as the actual money unit does.

If a perfect money substitute is possible it is imperative to define the attributes of money that must be perfectly met for a good to be included in this category. Here again we find that goods held only for exchange purposes have only two attributes determining whether they make a more or less suitable exchange good. In particular, the holder of such goods will be concerned with what value he can exchange the good into, and when. The value can be defined as either market determined as per supply-demand conditions, or par (i.e., fixed). The timing of when the

1 I refer here to money *qua* money, and ignore money demanded for numismatic purposes. In any case, numismatic demand is not a demand for money but rather a demand for other purposes, e.g., art (Howden 2015b: 17fn3; 2016: 5fn1).

2 Nor does it apply to other goods with only exchange value, such as financial assets (Howden 2016)

		Value	
		Par	Market
Availability	Present	Money	Equity
	Future	Bond	Future

good can be exchanged to access this value can either be in the present or after some period of waiting.

These two criteria for each of the exchange good's two essential attributes can be arranged to demonstrate that there are four pure types of exchange goods (Howden 2015a; 2015b). Note that these are all, like money, financial assets. Only financial assets can be classified as those being held to sell at a later date for either another financial asset or a good that brings utility to the holder.

Money is the unique financial asset whose value is available in the present (i.e., on demand) and at par value. Thus any good can be considered as a perfect money substitute provided that it shares these two attributes.

Banks are unique because they are the business that offers a perfect money substitute through deposit accounts. Indeed it is impossible to talk of banks without reference to money[3], a fact that now should make apparent the necessity to first define money before making reference to banks.

Bank liabilities can be composed of equity, debt and demand deposits. Banks are not unique at supplying equity, since any share company does this. Nor are banks unique because they offer loans since any company or person can sell or buy a bond. Banks are unique as they are the only company that supplies a perfect money substitute in the form of a demand deposit. Other services that a bank provides or goods that it offers are ancillary to this one factor that differentiates it from other companies – the ability to offer a perfect money substitute. Note also that while demand deposits are the most prevalent form of perfect money substitutes available today, they are by far the only ones.[4] Nor is it inconceivable that in the future other perfect money substitutes will arise that will also meet the requirements of being available on demand and at par value. However, what is certain is that any firm that offers perfect money substitutes can be considered as a bank, and can be given special treatment in economic analysis because of its ability to supply the only possible perfect substitute.

There are four distinct advantages to treating the existence of banks as being due to the fact that they are the only company that can supply a perfect substitute for a good, and the only good that this is possible for is money. First, since what matters is the perception and not the actual physical embodiment of money, we can see that some "perfect money substitutes" that are deficient in some way can be considered included in the money supply, and their issuer defined as a bank. An example of this is a fractional-reserve banking system that is able to place withdrawal limits on your account (thus compromising the "on demand" nature of your deposit) or can opt for a bail-in if for some reason it faces insolvency (as was the case recently in Cyprus). Provided that the depositor does not think either of the key attributes of money will be compromised by the bank, the deposit will be considered a perfect money substitute and its

3 Note that the corollary does not hold true: we can and often do discuss money without reference to banks.

4 In constructing various money supplies attention is given to different financial assets in their ability to serve as perfect money substitutes. See Rothbard (1963), Salerno (1987) and Howden (2012) for an overview of these assets

issuer as a bank.

Second, we can see that some financial intermediaries that issue financial assets that are considered commonly to be perfect money substitutes are not, in fact, banks. For example, money market mutual funds (MMMF) are included commonly in the money supply statistics since they are *de facto* redeemed on demand and at no less than their face value. However, given the two essential attributes of money are that it redeems at par value and on demand, we can exclude MMMFs from the money supply. This step also results in removing confusion as to who supplies money, as in the more common money measures (that include MMMFs) money and perfect money substitutes are issued by a variety of financial intermediaries which include banks as well as non-bank financial firms.

Third, we see that banks are not a creation of the legal system but rather that they exist for real economic reasons. Any discrepancy between the laws governing banks and those of other businesses comes after the creation of banks, not prior.

Finally, and perhaps most importantly, we see that the reason that banks take an inordinate importance in modern economic analysis is that they are able to offer a perfect money substitute that potentially does not share either (or both) of the key attributes. To the extent that the fractional-reserve demand deposit allows for the possibility that the bank will not be able to make good on its promise to redeem deposits on demand and at par value there is always the possibility that the depositor's perception that it can do so will be skewed. Added to this is the fact that banks can, under a fractional-reserve system, affect the money supply in ways that are inconsistent with the definition of what money is. In this way, we see that although defining banks is important due to the specific characteristics of money, it becomes especially important given the prevalence of fractional-reserve banking.

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