
FRBSF WEEKLY LETTER

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Are Banks Special?

There has been a longstanding debate in the economics literature about whether the regulation of banks is necessary because of their special role in the monetary system.

The traditional view is that banks (all depository institutions) are indeed special because, unlike other financial intermediaries, only banks "create money." At a minimum, it is argued that reserve requirements and restrictions on the issuance of private banknotes are needed to limit the volume of bank-created money in order to make the price level determinate — that is, to prevent it from spiraling upwards without limit. At the maximum, it has been suggested that banks be required to hold only safe, liquid assets to prevent bank failures and runs, which, if they become widespread, can lead to a collapse of the monetary system.

A "new" view is that banks are financial intermediaries not significantly different from other intermediaries such as finance companies, and that there is nothing *inherently* special about them. True, they do supply a means of payment (checking accounts), but they do not create money in the strict meaning of the term money. Proponents of this view agree that banks may well be special in our current monetary system but the reason they are special is a result of regulation, not a reason for regulation.

In this *Letter* we try to clarify the central issues behind this debate to determine whether banks either do have or need to have a special monetary role.

What is money?

Money has two closely related economic functions. It is the "numeraire" in whose units prices of other goods are quoted. And, it is the medium of exchange that facilitates trade by eliminating the double-coincidence of wants needed for barter. Much of the debate about banks' being special is due to a confusion of these roles and a failure to recognize that, at least in some monetary systems, these roles can reside in separate instruments. To understand

better whether banks have a special role in our current system, we first examine their roles in a commodity-based monetary system.

Commodity money

It is possible to have a monetary system without banks. For example, in a pure commodity monetary system, a commodity like gold is the only form of money and is both the numeraire and medium of exchange. In a pure gold system, the price level (the average price of goods in terms of units of gold) is determined by the supply and demand conditions for gold (for both monetary and nonmonetary purposes) relative to supply and demand conditions for other goods.

Although banks are not necessary in a commodity monetary system, banks came into existence because they improved the system's efficiency by lowering the cost of making payments. Indeed, even when countries were on a gold standard, bank debt, either in the form of privately issued banknotes (currency) or checkable deposits, served a role as a medium of exchange. Historically, then, one economic function of banks has been to economize on the real resource costs of holding and transferring the numeraire commodity by providing a financial medium of exchange.

In such a mixed system, the traditional view is that banks are special because the quantity of payment services they provide affects the price level in the same way as increases in the quantity of the numeraire. In recent articles, however, Eugene Fama has argued that the price level in such a monetary system still is determined by the supply and demand conditions for the numeraire commodity relative to other goods. Thus, the quantity of bank deposits (or other financial assets for that matter) does not affect the price level (expressed in units of the numeraire) directly. The reason is that the creation of debt itself does not alter either the supply or demand conditions for the numeraire.

This is not to say that bank-produced payment services would not be a substitute for the numer-

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aire commodity. Indeed, exogenous changes in the cost of bank-provided payment services would affect the demand for the numeraire commodity in its medium of exchange role and hence would affect the price level.

Even so, banks would not be free to issue any quantity of deposits they desire. In an unregulated mixed system, competitive market forces would lead bank notes and deposits to be redeemable for the numeraire and to pay a market-determined rate of interest (most likely implicit interest in the case of banknotes). The rate of interest would be based on the riskiness of return on the bank's underlying assets and the convertibility of deposits for the numeraire commodity. Transactions would be priced separately at their marginal cost.

These factors would limit the quantity of banks' debt just as they limit the quantity of other firms' debt and they would further distinguish bank debt from the numeraire commodity. This means that, contrary to the traditional view, the price level would be determinate in an unregulated, competitive banking system with a commodity numeraire. In fact, there are historical examples of such systems (Scotland) that appear to have performed without major problems.

Even though the price level is determinate without bank regulation in a commodity-based system, there still remains the issue of price stability. Unanticipated changes in the supply of the commodity (e.g., gold discoveries) or changes in the nonmonetary demand (e.g., the invention of printed circuit boards that require gold connectors) would affect the price level. However, this type of instability has nothing to do with the banking system and it seems unlikely that any sort of bank regulation could eliminate it. Moreover, historically, gold-based systems have displayed very stable prices over the long-run.

In the short-run, however, widespread bank runs might increase the monetary demand for the numeraire commodity and cause the price level to fall sharply. Banking panics likely would increase the monetary demand for the commodity because bank deposits and the numeraire commodity are substitutes as media of exchange. If banking panics themselves result from a type of private market failure, a public policy that eliminated panics might enhance the

efficiency and stability of the production of payment services by the banking system. In next week's *Letter*, we argue that legal measures that define and enforce property rights in the event of a bank failure could eliminate bank runs. This sort of public policy, however, is not related to reserve requirements or other restrictions on the provision of bank-produced media of exchange.

Fiat money

Although a competitive, unregulated banking system is viable when there is a commodity numeraire, the U.S and virtually all other countries have abandoned commodity monetary systems for pure "fiat" regimes in which government currency is not backed by any commodity but simply declared to be legal tender.

In a typical fiat monetary system, the government issues currency (by purchasing goods or financial assets from the public) that (1) has no intrinsic value, (2) is not redeemable from the government for real goods, and (3) does not pay interest. The key questions regarding a fiat system are what the numeraire is, and whether banks have a special monetary role that makes necessary their regulation.

The new monetary economics contends that, by analogy with a gold-based system, the numeraire in a fiat system is government currency. In a fiat system, the prices of goods are quoted in terms of units of currency (e.g., dollars) just as in a gold-based system they are quoted in units of gold. Consequently, just as the price level is determined by the supply of and demand for gold in a gold-based system, it is determined by the supply of and demand for government currency in a fiat system. This contrasts sharply with the traditional view that includes bank transactions deposits in the numeraire, even though in either a fiat or gold-based system they would be a type of interest-bearing debt serving as a medium of exchange.

A special role?

Do banks have a special monetary role in a fiat world? In particular, are regulations needed to limit the supply and to create a demand for fiat currency in order to ensure price level determinacy and stability?

On the supply side, there is no reason to think that a competitive private banking system could issue its own fiat currency. With no constraints,

such as convertibility or payment of interest, each bank would have an incentive to issue as much currency as it could. The result would be hyperinflation and collapse of the fiat system. Indeed, the public, understanding the inevitability of such a process, would be unwilling from the outset to exchange goods or financial assets for a competitively produced fiat currency. This is the reason that governments usually are the only suppliers of fiat currency.

A government, unlike a competitive firm, does not face any inherent technical problems in limiting the overall supply of currency, but it may face political problems in doing so. In a number of countries, an apparent inability to raise tax revenues from other sources has led governments to increase their rates of monetary expansion continually and thereby to create hyperinflations. As a result, their fiat systems have collapsed. Thus, governments that do not restrict supply may not be able to maintain a demand for their currency.

Given that the government can control the supply, the issue of whether banks are special in a fiat system depends on the extent to which their behavior affects the demand for fiat currency. One argument is that bank regulation is needed to create a demand for government currency. Without regulation, it is argued that the public would be unwilling to exchange valuable goods for something intrinsically worthless — that is, there would be no demand for government currency.

Bank reserve requirements represent just such a regulation. They enhance the demand for currency by requiring banks to hold currency (either directly or as deposits at the Federal Reserve) in rough proportion to their transaction deposits. Consequently, banks' behavior affects the demand for the numeraire because there is a direct link between the quantity of reservable bank deposits and the demand for currency. This may explain why the growth rate of the M1 monetary aggregate, which mainly consists of reservable deposits plus publicly held currency, appears to be statistically related to the inflation rate.

In a fiat system with reserve requirements on bank deposits, then, banks are special. However, reserve requirements are not needed to create a demand for fiat currency. There would be a demand for currency because of the convenience currency affords as a medium of exchange. It is simply too costly in terms of time to use alternative means of payment such as checks, credit cards, or an interest-bearing currency for all transactions. In fact, currently, most currency is held by the public, not by banks in the form of reserves. Thus, it is not necessary to make banks special through reserve requirements in order to make the price level determinant.

Reserve requirements, however, do enable the government to influence the degree of financial intermediation either by varying reserve requirements or the quantity of reserves. But this influence comes at a cost of restricting financial intermediation to be less than what it would be under a reserve-free system. (An increase in reserve requirements lowers the amount of bank financial intermediation and may thereby reduce the supply of bank credit). Nevertheless, even if government regulation of financial intermediation through reserve requirements is a social goal, it is reserve requirements that make banks special, not that banks' monetary role requires regulation.

Conclusions

A fiat monetary system, unlike a commodity-based system, requires government control of the quantity of currency, which is the numeraire. However, contrary to the traditional view, banks do not have to have a special monetary role in a fiat system because they do not create money (the numeraire).

While banks are special in our current system, it is because reserve requirements make them so. What remains to be debated is the social desirability of reserve requirements.

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Opinions expressed in this newsletter do not necessarily reflect the views of the management of the Federal Reserve Bank of San Francisco, or of the Board of Governors of the Federal Reserve System.

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BANKING DATA—TWELFTH FEDERAL RESERVE DISTRICT

(Dollar amounts in millions)

Selected Assets and Liabilities Large Commercial Banks	Amount	Change	Change from 6/26/85	
	Outstanding 6/25/86	from 6/18/86	Dollar	Percent ⁷
Loans, Leases and Investments ^{1 2}	200,151	127	7,954	4.1
Loans and Leases ^{1 6}	182,209	495	8,484	4.8
Commercial and Industrial	51,740	172	280	- 0.5
Real estate	66,553	- 166	2,966	4.6
Loans to Individuals	39,382	396	4,824	13.9
Leases	5,581	- 19	200	3.7
U.S. Treasury and Agency Securities ²	10,383	- 349	- 1,119	- 9.7
Other Securities ²	7,559	- 20	588	8.4
Total Deposits	200,367	- 3,452	4,822	2.4
Demand Deposits	48,803	- 2,896	3,312	7.2
Demand Deposits Adjusted ³	33,820	- 2,142	- 7,682	- 18.5
Other Transaction Balances ⁴	15,872	- 389	2,732	20.7
Total Non-Transaction Balances ⁶	135,692	- 167	- 1,221	- 0.8
Money Market Deposit				
Accounts—Total	46,557	- 179	2,339	5.2
Time Deposits in Amounts of \$100,000 or more	35,676	70	- 2,769	- 7.2
Other Liabilities for Borrowed Money ⁵	21,955	131	- 335	- 1.5
Two Week Averages of Daily Figures	Period ended 6/16/86	Period ended 6/2/86		
Reserve Position, All Reporting Banks				
Excess Reserves (+)/Deficiency (-)	59	127		
Borrowings	15	18		
Net free reserves (+)/Net borrowed(-)	44	109		

¹ Includes loss reserves, unearned income, excludes interbank loans

² Excludes trading account securities

³ Excludes U.S. government and depository institution deposits and cash items

⁴ ATS, NOW, Super NOW and savings accounts with telephone transfers

⁵ Includes borrowing via FRB, TT&L notes, Fed Funds, RPs and other sources

⁶ Includes items not shown separately

⁷ Annualized percent change