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Chapter XI of "Financial Instability and the Current Economic Policy" -- Banking in a Capitalist Economy

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Chapter XI
"Banking" in a Capitalist Economy

A. INTRODUCTION

The argument in the chapters on pure theory made it evident that the relevant economic theory for our type of economy cannot be constructed by "adding" money onto a theory that is designed to demonstrate that decentralized markets yield coherent results under the artificial conditions of trading at a Village Fair. Money, in our type of economy, is inexorably tied up with the process of creating and controling capital-assets. Money, in our type of economy, is not just a universal counter, which makes unnecessary the double coincidence of wants that is required for non-speculative barter to take place, it is a type of bond that arises in the process of financing investment and positions in particular types of capital-assets. In the 1930's, as the Great Depression was working its way through our economy, Keynes stated that the banking system

interposes its guarantee between its depositors who lend it money, and its borrowing customers to whom it loans money wherewith to finance the purchase of real assets. The interposition of this veil of money between the real asset and the wealth owner is a specially marked characteristic of the modern world. (J. M. Keynes Essays in Persuasion, Volume IX of the Collected Writings of John Maynard Keynes, MacMillan, St. Martin's Press, for the Royal Economics Society, London and Basingstoke, 1972, p. 151.)

In this Keynes view money is created as bankers go about their business of financing investment and positions in capital-assets. In the first instance an increase in the quantity of money finances an increase in the demand for either investment output, or items in the stock of capital-assets. Money creation is part of the mechanism by which a surplus

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is generated and allocated. The appropriate economic theory for the analysis of how money and the institution, which creates money, banks, affect the behavior of the economy must focus on the question of what factors determines the size and the applications of the surplus.

As money is created the borrowers enter upon contractual commitments to repay funds to the lending bank. Money because of its origins in the banking process is part of a network of cash flow commitments, a network that for the capital-asset side of the economy rests upon the cash flows or quasi-rents, to use Keynes' terminology, that capital-assets generate when used in production. The satisfaction of the cash flow commitments to banks by units producing investment goods depends upon the ability of the purchaser of the investment goods to make their payments, which in turn depends upon the financing of ownership of capital assets. Normal functioning of the banking process, and thus of an economy with capitalist banking, depends upon the normal functioning of both the income producing and financial systems of the economy.

Because the liability of banks functions as our economy's money, banks are unlike money lenders who are restricted to the contents of their strong box in their financing activities. As will be argued in what follows banking activity can be characterized as first taking on an obligation to make payments on behalf of a borrower and then finding the wherewithal to fulfill the payment commitments that result. Because of this characteristic banking is the central financial activity of our economy. Because it provides the flexibility to the financial structure which allows commitments to be made in the face of the uncertainties that are inevitable in any process that involves historical time.

Prior to the emergence of modern industrial capitalism, money as a type of bond issued in the banking process, was mainly concerned with financing commerce; Proc., goods "in the process of production and distribution:" The label Commercial Banks for our demand deposit issuing institutions reflects the original dominance of this line of business. The capital-assets and investment that money financed in those circumstances were mainly inventories. I or a productional angular dominance of the process of production and distributions. The capital-assets and investment that money financed in those circumstances were mainly inventories. I or a productional angular dominance inventories of the process of production and distributions.

However in our economy, side by side with the need to finance inventories, there is a much greater need than in earlier epochs to finance durable or fixed capital-assets, both in their production or construction stage and over their lifetime as components in production processes. This is so because the greater capital intensity of production means that capital assets now entail a larger volume of money today in exchange for money later commitments. The arranging of financing for investment and for capital-asset ownership is the business of investment bankers, who underwrite and distribute new issues of debts and equities and make the markets, either as brokers and dealers, in which trading in existing securities takes place. In the reform legislation of the 1930's a line of demarkation was set between investment and commercial banking for private

Prior to the development of the currently dominant "money" view of banking a "commercial loan" or "real bills" theory of banking was dominant. This theory held that commercial banks should restrict their lending to instruments that represent goods in the process of production (inventories) and that, if the banks did this, then the correct amount of money would be in existence. Regardless of the validity of this theory both the commercial loan and the money view of banking tend to ignore the role of banking in the financing of capital asset ownership and investment output. As such these traditional views of banking are complementary to the neoclassical economic theory which emphasizes transactions in already produced output and virtually ignores the existence of capital assets, the commercial loan view of banking and the Village Fair perspective on the economy are logical "partners". The definitive works on these issues remain Jacob Viner, "Studies in the Theory of International Trade", especially chapters ; and Lloyd Mints.

debt. The same organization with few exceptions is now not allowed to engage in both types of business. When we come down to policy and reform suggestions we will discuss the wisdom of this division with respect to private debt and whether it should in fact exist for all banks and all markets. The division between commercial and investment banking is artificial. Commercial bankers now finance, by means of term, construction, and revolving credit loans, investment and positions in fixed capital-assets. Investment bankers acquire banks, either overseas or through holding companies, and facilitate, short-term financing of business through devices such as open market or commercial paper. Furthermore in recent years giant commercial banks have used their favored position with insurance companies and pension funds to engage in the business of distributing longer term business debts.

In this chapter we will put some institutional meat on our theoretical skeletons however we will remain abstract and try not to get too involved in the nitty-gritty of institutions and usages. Our aim in this section is to show how in our institutional set up the demand for finance draws forth a supply of finance, i.e., that finance, and this implies money, fare endogenously determined variables responsive to demand. Furthermore we will show that the Federal Reserve System cannot always be an "outside" agency that focusses on the size of the money supply, for at times its actions will be dictated by the need to avert financial crises.

Commercial banks were allowed to continue to underwrite and distribute state and municipal securities. Perhaps the difficulties of New York City which were so prominent in 1975 can be laid to the continued dominance of banks, and in particular the giant banks, in this business.

This is especially so once the relatively fragile financial system we have examined in chapter X exists. It will become evident that the emergence of fragile financial structures is a consequence of the normal functioning of an economy with our type of banking and financial institutions.

Standard economic theory, the neoclassical synthesis, views banking as a mechanical, static, and fundamentally passive intermediary, which may affect details and perhaps introduces noise but which does not truly affect the behavior of the economy. This economic theory leads to the view that the economic effects of the banking system are fully captured by the money supply, changes in the money supply, and perhaps the movement of some interest rates. This view which implies that the Federal Reserve can "guide" or "control" the economy by controlling the money supply first controlling reserves and the efficacy of reserves, is a legitimate and fundamental policy conclusion of standard theory. In truth, as experience has amply demonstrated, the Central Bank control process is imprecise and largely ineffective, This is so because banking is a dynamic and innovative profit making business and the managers of banks are actively seeking to build their private fortunes. Profit making and fortune hunting bankers adjust the asset, and liabilities of banks in response to perceived opportunities and these adjustments affect, the volume and the allocation of finance. The view that the size of the money supply is the only way banking affects the economy has led economists and the Federal Reserve to virtually ignore the composition of bank portfolios in theorizing and making policy. In particular the view that the money supply is the

relevant variable by which control of banking can affect the performance of the economy has meant that the various banking authorities the Federal Reserve, the Comptroller of the Currency and the Federal Deposit Insurance Corporation in neither control nor have a strong tradition for a view with respect to bank portfolios and leverage. Until the stability of the banking system is threatened, as in 1975, the authorities ignored the changes in the ratio of bank assets to bank equity. Furthermore when in 1974 and 1975, the authorities recognized that there was a problem implied in 1974 and 1975 the authorities recognized that there was a problem of "capital adequacy" was viewed as a "banking" or a "bank business" problem and not as a problem of economic policy.

The vision of standard theory, that the Federal Reserve determines a money supply which in turn determines income and prices either directly as monetarists have it, or indirectly, as standard Keynesians have it, is not valid for our society. In our economy money, defined in any meaningful way, is an endogenous variable whose quantity is mainly determined by the workings of the economy. Furthermore in our economy there not only are a number of different types of money, but the "nature" of the money that is relevant for various problems of economic theory and policy changes from time to time. The role of money, banking, and finance in our economy cannot be understood unless allowance is made for financial evolution and innovation.

The financial instability perspective holds that the fundamental path of a capitalist economy is cyclical, that the cyclical course of events is due to the behavior of investment, and that investment is a source of instability because of the manner in which investment is related

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to variables which are mainly determined in financial markets. Thus financial instability view leads to an investment theory of business cycles and a financial theory of investment. Part and parcel of this approach to the behavior of our economy is that under normal functioning changes in the relevant amount or quantity of money emerges out of the financing, through banks and financial markets, of investment and other spending. Changes in the relevant amount of money are not imposed upon the economy by Federal Reserve actions, for as was believed in olden days the vagrancies of gold production or the course of the balance of payments. Changes in the quantity of money arise out of the interactions among units that desire to spend in excess of their income and the organizations which facilitate such spending. The central spending in excess of income that takes place in a capitalist economy is the spending on investment and on The (and public worpns, in U.K.) holding capital-assets by business, True households and government can, and do spend in excess of their income But the viability of household spending in excess of income depends upon the stability of employment and government spending in excess of income is largely a recent result of the existence of "big government" in a financially unstable environment.

Our examination of how product prices are determined in a capital using capitalist economy Chapter VIII showed that in the simple parable of an accumulating economy in which only consumption and investment outputs are produced, the mark up on labor costs in the production of consumer goods is the wage bill in the production of investment goods. That is profits in consumer goods production depends upon investment goods production. The mark up on labor costs in the production of investment goods and the supply

effective

curve of investment goods. The demand for investment goods depends upon the capitalized value of future profits being greater by some margin, which reflects evaluations of the relevant uncertainties by porrowers and lenders, over the supply price of investment-output. Current and empediate future profits, which together with the capitalization ratio determine the demand price for capital-assets, depend upon current and future investment activity. In a very special sense a capital using capitalist process a sufficient amount to sustain a reasonable approximation to full employment and to assure that debts and other financial instruments are validated, because it is expected to work well enough over a reasonably long set of tomorrows. Investment takes place today because tomorrow's investment is expected to lead to adequate flows of profit.

expectations of tomorrow's profits, changes in the demand price for investment goods can be expected to occur as views about the future thange. But an increase in the demand price of investment goods, even after allowance for borrowers risk, will not result in an increase in the amount of investment unless financing is forthcoming. We have to look at the nature of banking and financial markets to determine how the banking and financial system works so that an increase in the supply of financing takes place in response to an increase in the demand for such financing and whether an "independent or autonomous increase in the ability and willingness of banks to acquire assets will result in an increase in investment. In this view money emerges out of the processes by which investments and positions in the stock of capital assets are

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financed Money, in its various forms, emerges out of the way various profit maximizing banking organizations go about their business,

Recall that financial markets, and thus banking enter the investment determining process in three ways. One is that the determination of the current value of capital-assets, and thus the demand price for current investment output, occurs in financial markets. The second is that the determination of the amount of investment, that will be financed depends upon banking processes. The third is that supply price of investment output depends upon financing conditions.

The peculiar circularity about a capitalist economy, / that sufficient investment to maintain full employment will be forthcoming now only, as there is a belief that enough investment to assure that the economy does well will be forthcoming in the future, # has a banking and financial system corollary. Not only must the banking and financial system be working now so as to maintain favorable asset prices and investment financing, but the banking and financing system must be expected to work in such a forming in the future so that asset prices are maintained and investment financing forthcoming. Normal functioning of the banking and financial system is a necessary, but not sufficient, condition for the satisfactory functioning of a capitalist economy. Any disruption of the banking and financial

This dependence upon investment for the normal functioning of the economy is also a dependence upon the availability of external finance. If the demand for external finance exceeds the supply of external finance at a given set of financing terms; then financing terms will rise. Financing terms are what is written on the contract in which investing

systems will lead to a malfunctioning of such an economy.

units receive money today in exchange for their promises to pay money tomorrow. These contracts entail much more than purely interest rate they include collateral, maintenance of net worth, profits they include collateral, maintenance of net worth, profits coverage of debt payments before dividends can be paid, etg. The

existence and nature of these codicils makes the mere looking at interest

rates very misleading as an indicator of financing terms.

"codicils" means a fall in the price of the outstanding inherited stock of financial and capital-assets, which in turn implies a fall in the demand price of investment. We have a delicate governor mechanism which may well operate to control the amount of investment that will in fact be forthcoming. A rise in the demand price for investment will increase the demand for financing which increases financing terms which lowers capital asset prices, and thus the demand price for investment. A symmetric mechanism will hold for a fall in the demand price for investment. However this governor mechanism is often ineffective.

We live in a world of uncertainty with highly speculative financial markets. Current views about the future determine acceptable and unacceptable liability structures and thus affect capital-asset prices and investment. As a result the interactive processes between capital-asset prices and financing conditions affect income, employment, and profits so that the governing mechanism is often dominated by positive, disequilibrating feedbacks. This is so because the very processes and climate which increases the demand-prices for capital-assets relative to the supply prices of investment output will also increase profits, the ratio of profits to cash payment commitments, and the amount of financing that banks

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and financial markets will make available at any set of terms. Because bankers live in the same climate of expectations as their business men customers, profit seeking bankers will endeavor to find means to accommodate their customers. In this way banker's behavior will tend to reinforce disequilibrating pressures. Symmetrically, the processes and climate which decrease the prices of capital-assets will also decrease the willingness of bankers to finance customers.

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The view of money, banking, and financial markets that follows from the investment financing perspective differs radically from the view that dominates standard economic theory and analysis. The standard view divorces how money affects the behavior of the economy from any consideration of the specific transactions by which money is created. Both God gwen?! monetarists and standard Keynesians view money as an externally given quantity. They both tend to view the quantity of money as something which can be identified quite independently of institutional usages. Whereas $otin ag{From}$ the financing perspective an economy may have a number of different types of money at any time, for different uses and for different institutions, / and the nature of money in an economy can change over time. The standard view ignores the interactive processes by which money is created and the implications of different ways of creating and using money. The standard view treats money as a quantity without considering qualitative and process attributes.

The structure of banking and financial institutions that exists at determine? any time (leads to) the capitalization rates for the different types of quasi-rent yielding capital-assets and (to) the financing terms for the various types of investment goods being produced. The mark upon money

market interest rates that leads to the cost and conditions of finance for various types of enterprize can differ. Our world is characterized by heterogeneous capital assets, techniques of production that require extensive financing and a variety of organizational forms for business and finance. In such a world it is possible for financial advantages and disadvantages to offset production advantages or disadvantages. Without examining the evidence is particular cases it is impossible to determine whether that which is successful because it survives in the market structure that exists is due to production, product or financial advantages. In a capitalist environment the successful can be technologically inferior units a large enough financial advantage.

In order to understand how an advanced capitalist economy with a sophisticated financial system operates it is necessary to take a critical, no nonsense look at banking, what it is and how banks operate. A century ago in the populist tradition banks and bankers were looked upon with a good deal of suspicion. An old saying, reflecting much folk wisdom, was that "A Bank Charter is a License to Steal." In these days, when persuasive evidence exists that the financial probity and altruistic concerns of giant corporations, large financial institutions, and senior government officials can be questioned, perhaps we should examine whether the suspicion of banking embodied in the folk wisdom of a century ago embodied some serious truths.

What we will mainly discuss is not how or whether a bank charter may be a license to steal but whether the populist suspicion, which reflected will view that it is not quite legitimate for a mystery, banking, to exist

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which enables someone, a banker, to get something for nothing, was really a suspicion of the disruptive influence of banking on an economy. In fact the banker has something a name that is acceptable as a pledge for the bonafides of a third party. But a banker, like a modern physician, only lays hands on a "client" if there is a fee forthcoming for the service. A banker is a profit maximizing businessman.

We will find that banking, as the financing agency for investment activity and the holding of capital-assets, is essentially a disruptive or disequilibrating force in the economy. The disequilibrium that a capitalist economy exhibits could not exist without banking and financial markets. White banking, By its very nature, is a disequilibrating force, contemporary institutionalized corporate banking, for which the stock market valuation of bank shares is a major determinant of bank behavior, is especially disruptive. Given the destabilizing properties of banking and finance it is necessary to determine whether privately owned banks as they are now constituted should be tolerated!

In what follows we will to a large extent focus on commercial banks and other extant financial institutions. However with Henry Simons we must recognize that "banking is a pervasive phenomena" in a capitalist economy and that banking practices are not restricted to organizations called and chartered as banks and regulated by the banking authorities.

Furthermore just as "banking" is not necessarily restricted to banks so money creation is not restricted to banks and government agencies. In truth any economic unit can issue money, the only question or problem, is to get it accepted. Thus in the conglomerate movement of the late 1960's companies were often purchased by complex combinations of equities

and debts, by "funny money" to use the language that became common on Wall Street. In periods of economic expansion and especially in periods when financial markets are particularly active the appearance and acceptance of new, often special purpose, money along with the emergence of specialized financial institutions that have this new form of money as their liability has been a recurring phenomena.

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B. INSTITUTIONAL CHANGES, MONEY, AND OUR KNOWLEDGE OF OUR ECONOMY form the United States the primary form of money now consists of deposits subject to check; i.e., demand deposits. These deposits are "created" as banks lend and buy securities, and are destroyed as bank loans are repaid, as banks receive interest on securities, and as bank holdings of securities are sold. In our economy units of the money supply are constantly being created and destroyed even as the total amount in existence may not change. The holders of demand deposits are indirectly financing the activities represented in the securities and loans on the books of banks. Whatever changes occur in the quantity of demand deposits reflect changes in the total of such financing the processes which destroy and create units of demand deposit can change the distribution of the financing being effected.

The currency form of money comes into being as holders of demand deposits exchange such deposits for currency. This exchange takes place because currency is more convenient than demand deposits for some uses.

Under the banking rules that existed prior to the Federal Reserve Act, the National Banking System, created in 1863, and the regime of state autonomy in banking, that existed between the late 1830's and the Civil War, individual banks had the right to issue circulating bank notes, the currency. Under this institutional set up the primacy of demand deposits as the essential money had not been established. However once the "banking" process is restricted to the crediting of bank promises to pay in the form of demand deposits to business, household, and government accounts in exchange for business, household, and government promises to pay in the form of loans and securities, the primacy of demand deposits as money is established.

Our current concept of money reflects the present stage in the evolution of institutions and usages. Such evolution takes place in response to both legislated changes and profit opportunities that arise in financial markets. There is a peculiar "naivete" to the standard views on money which admit that money has evolved over history and that the institutions which handle money and trade in money loans, even if they do not create money, have changed quite rapidly at various times. Furthermore it is admitted that these past changes have affected the connections between money, banking, finance, and the performance of the economy in a variety of ways. Nevertheless the holders of the standard view do not concede that the same, or a similar, evolution of institutions and usages is now going on so that the relations between any measured money concept and measures of the behavior of the economy are changing.

This obtuseness, with respect to the possibility of ongoing institutional changes and their effects upon system performance that permeates present our discussions of money, may be due to dominance of "printout" testing of economic relations over the study of institutions and usages in economic presearch. For an "econometric" result that a computer spews out to have any meaning whatsoever it is necessary that the underlying structure the institutions and the usages which generate the data not change for a long enough period of time so that enough independent observations are generated to fulfill the requirements for statistical significances. That is econometric work rests upon an assumption that the underlying system does not change for as long as perhaps fifteen or twenty years. However as Norbert Weiner put it:

Difficult as it is to collect good physical data, it is far more difficult to collect long runs of economic

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or social data so that the whole of the run shall have a uniform significance. The data of the production of steel, for instance, change their significance not only with every invention that changes the technique of the steelmaker but with every social and economic change affecting business and industry at large, and in particular, with every technique changing the demand for steel or the supply and nature of the competing materials. For example, even the first skyscraper made of aluminum instead of steel will turn out to affect the whole future demand for structural steel, as the first diesel ship did the unquestioned dominance of the steamship.

Thus the economic game is a game where the rules are subject to important revisions, say, every ten years, and bears an uncomfortable resemblence to the Queen's croquet game in Alice in Wonderland ... Under the circumstances, it is hopeless to give too precise a measurement to the quantities occurring in it. To assign what purports to be precise values to such essentially vague quantities is neither useful nor honest, and any pretense of applying precise formulae to these loosely defined quantities is a sham and a waste of time. (Norbert Weiner, God and Golem: A Comment on Certain Points Where Cybernetics Impinges on Religion, Cambridge, MA: M.I.T. Press; London: Chapman and Hall, 1964, pp. As cited by Joan Robinson in "What Are the Questions", Journal of Economic Literature, Dec., 1977, Vol. XV, #4.)

sophisticated metrical research in Economics, but are especially relevant to for research on money, banking, and finance. The data on production, demand, and employment are grounded in the properties of the stocks of capital assets and human resources. These change only with accumulation and as people learn and age. Although rapid changes are possible in the composition of outputs and inputs, these rapid changes are the result more of cyclical changes than of changes in the underlying institutional structure and resource availability. Monetary and financial relations are not so grounded in technology and tastes as are outputs and employment. This means that the

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significance of monetary and financial variables and their impact upon system behavior can change comparatively easily and quickly. If econometric work on monetary and financial variables is essayed it should be carried on with an awareness of the need for a semblence of institutional and usage stability over the period covered by the study. This implies that econometric work must be preceded by research which indicates that the financial and monetary institutions and usages which generate the data and which control the relations between monetary and financial markets and the behavior of output, wages and prices did not change in any significant way over the period of the study. Most econometric work on money and finance fails this test the typical bit of such research is carried out as if history and institutions do not matter, nay as if they do not exist.

In fact monetary and financial institutions and usages do change often and rapidly so that relations among variables and the content of particular numbers changes. On a strictly behavioral plane the apparent stability of financial markets in the first twenty years of the post World War II era has been followed by more than a decade of apparent instability. On an institutional or usage plane the clear dominance of asset management in bank position making at the end of World War II has been followed by an equally clear dominance of liability management. As a result of this change the significance of a time series, such as that of the Treasury Bill interest rates, has changed radically over this period.

Those econometric studies of money which attempt to test whether

the underlying structure does or does not change almost always come up

with evidence that the structure does change once data for the period after

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the middle 1960's is included. The best summary of the evidence is that the monetary and financial system was relatively stable, - even as the relative weights of different instruments changed fover the first two or so decades after World War II, but that since then the estimated relations have shown substantial instability.

which indicate how the economy reacts to various developments. The parameters of these studies presumably are reaction coefficients and can be combined into multipliers. But if the parameters of the econometric studies are subject to change because of institutional and usage changes, then the such econometric studies yield little if any information on how the system will react to changes and what its path will be.

Much of the discussion of the appropriate role of the Federal Reserve System in economic policy in the years since 1960 or so has been dominated by arguments of the monetarists. The monetarists, have, so to speak, defined the agenda. The monetarist position rests upon a proposition about the nature of the economy, that it is inherently stable, of and three propositions about the nature of money. (1) the money w of an economy is a precisely defined and can be readily measured, (2) the central bank can determine the quantity of money in the economy, and (3) variations in the quantity of money, or in its rate of growth, determine changes in output in the short-run and in prices in the long-run. All three propositions about the nature of money are false. In particular the third point depends upon the stability of relations that measure the demand for something labeled as money. Research subsequent to that which established the fundamental monetarist results indicates that over ute some enemples to meaningful time periods structural instability exists.

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The monetarist school looks to a monetary explanation of business cycles and inflation. The cyclical and price level problems of the economy according to this school are due to errors of policy to largely to errors of monetary policy. Quite simply stated, the monetarists claim too much. Financial instability has been a regular recurring phenomena in the United States experience since the foundation of the Republic. Although the Great Depression of 1929-33 did take place after the founding of the Federal Reserve System, the history of the United States prior to the founding of the Federal Reserve System is replete with episodes of monetary and financial instability followed by serious and deep depressions. The threats of financial disturbance that have been so evident in the past decade, 4 1966, 1969-70, and 1974-75 have but a recurrence of phenomena that occurred regularly in our history. That the proposition that instability is due to policy errors needs to explain why and how instability, similar to that of the past decade, occurred under a wide variety of institutional arrangements including some institutional arrangements which precluded the existence of policy. Because of the long time span and wide variety of institutional forms over which our economy exhibited serious instability, it is best to view instability as being deeply systemic, / ingrained in the essential processes of a dynamic capitalist economy, / rather than as a superficial or transitory phenomena due to human error or institutional flaws which can be corrected.

Standard Keynesians who were the dominant influence upon economic policy through the 1960's and who remain the "conventional" opponents of the monetarists in the 1970's, tend to agree with the monetarists that the money supply of an economy can be precisely defined, and readily measured and that the Federal Reserve can determine the quantity of money.

Although standard Keynesians are not precise in their views as to what determines the cyclical behavior of our economy they are united in denying the primacy of variations in the quantity of money or its rate of growth as the many of the behavior of the economy. To a standard Keynesian the significance of variations in the money supply is that they affect "the" rate of interest. In the large scale econometric models that seem to be the embodiment of standard Keynesianism in the 1970's interest rate variations induced by monetary policy largely affect the operations of the economy by affecting the construction industry and in particular housing.

The view of money that enters into our explanation of how the economy functions is quite different from that of both the monetarists and the standard Keynesians. First of all the effective quantity of money is determined by the workings of the economy. In an economy with a sophisticated and complex monetary system there is a hierarchy of monies, with special money instruments for different purposes. Perhaps the best way to view money in our economy is to assert that everyone, not just banks, can issue money, the only problem is to get it accepted. Thus in the boom days of the conglomeration movement of the 1960's corporations were buying corporations with a wide variety of bonds, preferred stocks, common stocks, warrants, etc. these financial instruments were the money used for such take overs purposes. In the early 1970's the REIT's were able to "put out" their liabilities with minimal market scrutiny and so finance construction activity.

Money, as Keynes pointed out in 1931, is a special type of "bond", one issued by a bank, that finances the bank's holdings of various types of assets. These bank assets in turn are liabilities issued by "other

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units" to finance either positions in capital-assets or varieties of spending. These "other units" Ultimately are business firms, households, or government units, although layering, through other financial intermediaries, can and does occur so that banks own the liabilities of other financial units rather than of the primary household, business, and government units $\mathbb D$ Money (in our economy, arises in the process of financing either the holdings of capital-assets by business, or of financing some type of spending by households and governments. Money in the form of bank deposits originates out of contracts in which a "bank" pays something "today" in exchange for a promise that the bank will receive something over a run of "tomorrow's." Thus the automobilization of our society in the 1920's rested upon the growth of specialized automobile financing relations, which involved specialized financial institutions as well as conventionally defined banks. In the 1930's there was considerable concern that the length and depth of the depression was due to the prior growth of consumer debt and the ongoing liquidation of such inherited debt.

The special attribute of money is that this instrument, which comes into being in the financing of bank holdings of assets that reflect business, household, and government debt, is generally acceptable as a medium of exchange in our economy. In order to understand why this is so, as well as the special role of money as a financial instrument, we have to understand banking. Money is what it is because of the pervasive nature of banking, especially commercial banking.

It is the existence of money as an institutional artifact which is used to finance investment and positions in capital assets which makes it impossible to do economics and ignore institutions and usages. Any economy in which long lifed capital assets, financial markets, and money

as a liability of institutions that finance activity exist cannot be reduced to a mechanistic set of equations and its reactions cannot be captured by econometric analysis. It is the existence of money, and its instituan analysis of how things are

world.

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reduction added at none points. tional counterpart banking that assures that knowledge about our economy requires an understanding of history and an analysis of how things are

in fact organized in the world.

C. THE BUSINESS OF BANKING

Banking is not money lending. A money lender must have that which it lends, money, on hand. A banker creates, for better still promises to get, if necessary, funds to cover spending which a borrower is authorized to make. The fundamental banking activity is not lending, it is accepting, or endorsing, i.e., asserting that some party is credit worthy. A bank as it endorses or accepts a debt instrument is vouching for the credit worthiness of the debtor and undertaking a contingent liability to make specified payments, as stated on the accepted instrument, if the original debtor will not or cannot do so. Once a banker asserts that he stands ready to make good for a customer, then, presumably, suppliers will ship orders and provide services. The bank's promise to make funds available may never be used because other sources of credit including credit from suppliers, becomes available once it is known that a bank has accepted the obligation to make payments if the need arises.

The post-1970 structure of the commercial paper market is an example of how the stated willingness of banks to lend affects the flow of credit and economic activity. As an aftermath of the Penn-Central fiasco in the spring of 1970, it is now standard precedure for a unit borrowing on the open market by issuing commercial paper, car unsecured promise to pay of a presumably safe and secure corporation, to have an open line of credit at a series of banks that is as large or larger than the amount borrowed by commercial paper. Thus the borrower and lender both know that when the time to repay the lenders on the commercial paper arrives the borrower could, if necessary, obtain funds from a bank. Guaranteed bank refinancing of open market debt is fundamental to the

Some weets have had, do have central bank, underwriting the U.K.

viability of the commercial paper market. This guaranteed refinancing makes commercial paper virtually the equivalent of a bank deposit to the lender. To the lender commercial paper is as good as "a demand deposit". In fact it is better because the commercial paper yields and income whereas a demand deposit does not.

With banking practices that include lines of credit it becomes necessary to distinguish between the "actual" money in existence and the "virtual" money which banks guarantee to bring into being if the need arises. Banks, so to speak, have overt monetary liabilities, demand deposits, and covert liabilities that substitute for demand deposits.

In the early 1970's the REIT's financed a speculative construction boom largely by issuing commercial paper. This REIT commercial paper was marketable because of the existence of covering lines of credit at banks. When in 1974-75 REIT's were unable to refinance their positions in real estate construction paper by turning over their commercial paper, they used their lines of credit at banks to pay off maturing debt. The problems that banks had with REIT's came in through the back door of lines of credit. Only as the exuberance went out of the real estate boom were banks required to make good on their commitments. The inflationary expansion, the overbuilding of speculative developments, as well as the problems of banks in 1974-75 rested upon the prior development of "lines of credit banking" as cover for borrowing by way of the commercial paper market.

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By late 1977 the growth of the commercial paper market was so great that the giant banks, # which are the primary suppliers of the guaranteed refinancing, were complaining of the growth of their unused lines of credit.

Whenever a banker vouches for the credit worthiness of a customer or authorizes a customer to draw checks on his bank, the banker need not have uncommitted funds on hand. In fact he would be a poor banker if he had substantial idle or excess funds on hand for any substantial time The holding of non-income earning funds beyond the required by consound transactions, regulations, or institutional usage means that earnings are being foregone. What a banker needs to know is that if the actions of his depositors and borrowers requires him to make payments then he, the banker, can get the funds needed to meet the obligations to other banks that arise when such payments are made. Bankers need to believe that there are markets in which they can pledge or sell assets so that an accretion of funds to his credit will occur. The vast edifice of banking rests upon commitments which are made on the basis that the normal functioning of financial markets will enable bankers to cover their needs for funds by operations in these markets. The normal functioning of our enterprise system depends upon the existence of a large array of commitments to finance which do not as yet show up as actual funds lent or borrowed on any set of books. Money markets which provide the interconnections among banks are necessary for such commitments to finance to be undertaken in good faith and for such commitments to be, on the whole, honored.

As a result of this networth of commitments and financial markets, banks and bankers are not the passive managers of money to lend or invest that are pictured in the text book versions of banking. Bankers are profit maximizing businessmen who first solicit and then undertake commitments and who raise funds as needed to fulfill commitments. The profits bankers make result from charging more for funds they make available than they pay

on funds they raise, iven, by levering their equity base with funds they raise. Banks can be viewed as borrowing most of the funds used to acquire their loans and investments. Bankers make money by charging for endorsing or accepting other units debts, and undertaking commitments to extend credit. One magic of banking is the ability to charge fees for not lending. No wonder the populists of a century ago looked on banks as "unnatural".

A bank balance sheet contains three basic types of overt liabilities, demand deposits (deposits subject to check), time deposits, and owners equity, as well as contingent or covert liabilities such as acceptances, lines of credit, and customer connections. Aside from a relatively small value attached to bank buildings and facilities, a bank's overt assets consist of various forms of money and earning assets. Contingent assets exist in the form of the liability of those who have lines of credit, or whose debts have been endorsed.

Earning assets consist of bank loans and securities. The loans on a bank's book represent payments the bank made for businesses, households, and governments which were exchanged for a promise by these "borrowers" to repay "money" at some future date. The securities, or investments, on a bank's books reflect purchases from various financial markets made out of funds on hand or acquired through markets, these securities are also promises to pay "money" at various future dates.

The main distinction between loans and investments is that loans involve a customer relation, like as not initiated by the banks, in which the banks agree to lend on the basis of "private" knowledge of the borrowing unit's financial posture, whereas securities are presumably purchased on an

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impersonal market, so that the knowledge upon which the bank purchases securities is available to all. Furthermore there usually is an implicit commitment to continue financing relations for a loan customer whereas no such continuing commitment exists for particular securities. Because of the personal basis of bank lending, assets acquired in the lending process are presumably not transferable. Thus loans cannot be negotiated to raise funds when needed as readily as securities can be sold. The discount windows of the Federal Reserve Banks were created so that loans could be negotiated under appropriate circumstances.

Once overt bank loans exist, the borrowers from banks are committed to making payments to the banks as stated in the loan contract. Thus we have a process in which banks make payments for customers, borrowers, and the customers then operate so that payments are made to the bank. We have an initial flow from the bank setting up later flows to the bank. What exactly is it that the bank pays for customers, flows from the bank, and that the banks receive, flows to the bank, as customers operate so that their commitments are fulfilled, and to whom and from whom are these flows?

The payments that banks make are to another bank, albeit simultaneously charging the account of a customer. The payments are credited to the account of some depositor in the "receiving" bank. The payments that a bank receives are from another bank, ostensibly from the account or line of credit of some customer at the other bank, and the amounts received are credited to a particular account at the receiving bank. We have a system in which as individuals, corporations, and various government units make payments to each other they are setting in motion transfers among banks.

These transfers among banks are the basic monetary transactions in our economy.

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The payments that banks, make one to another lead to the shifting deposits from the account of one bank to the account of another at Federal Reserve Banks This is clearly the way the banking system operates for member banks. For non-member banks another bank, called a correspondent. intervenes so that the transfer at the Federal Reserve Banks are for the account of the correspondent. Whereas business, households, and state and local governments make payments by transferring deposits on the books of commercial banks, member and non-member banks make payments to member and non-member banks by transferring credits on the books of the Federal Reserve Bank from the account of one bank to that of another? Whenever a unit with either a deposit or a line of credit draws a check on a bank and the receiver of the check deposits it in another bank a transfer of Federal Reserve funds, from the account of one bank to that of mother bank takes Whereas the "public" uses bank deposits as money, banks use Federal Reserve deposits as money. This is the fundamental hierarchical property of our money and banking system.

We therefore have a system in which banks make payments for a customer to other units, which payments end up as demand deposits at some other bank. A borrowing customer for whose account payments were made, has to operate, buy, sell, work, save, so that at the agreed upon due date for his loan he will be able to fulfill his obligations to the bank. Demand deposits which are not intrinsically valuable have value because there are a multiple tude of units in our economy which have outstanding debt commitments which call for the payment of demand deposits to banks. Thus they will work and sell goods for demand deposits. Bank loans, while ostensibly "money" today

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for "money" later contracts are really an exchange of debits from a bank's books today for credits to a bank's books later. Whereas today's drawings from deposits decreases a bank's reserve deposits at the Federal Reserve, today's additions to deposits, which occur in part because of the need by various units to repay outstanding loans, add to the bank's reserve deposits.

In the above we have isolated and emphasized one type of check writing and check depositing activity, that which centers around bank lending and the repayment of bank loans. In addition to borrowers activities, a vast proportion of the deposits, and of the checks drawn on a bank, might well be independent of the bank's own lending activity. The proportion of checks drawn and checks deposited that have to do with bank loans and repayments is related to the loan deposit ratio. If deposits are based upon bank's owning government securities, as was largely true after World War II, then household and business check drawings and deposits are not largely due to loan activity. However given the existence of bank borrowers who need to acquire deposits to fulfill their commitments, the commodity and asset value of deposits is determined by the demands of the debtors to banks for deposits.

Let us assume a 100% loan/demand deposit ratio and a 20 business day month. Furthermore let us assume that all loans are made for one

In an economy where government debt is a major asset on the books of the deposit issuing banks, the fact that taxes need be paid gives value to the money of the economy. The "virtue" of a balanced budget and a surplus, insofar as the commodity value, purchasing power, of money is that the need to pay taxes, means that people work and produce in order to get that in which taxes can be paid.

month. On the average 5% of a representative bank's outstanding loans become due each business day. We can assume that these business loans are repaid by a demand deposit on the books of the banks i.e. the borrowing customer operated in the month since the loan was entered upon the books so as to be in a position to repay the loan on the due date, and these customer operations gradually build, up a deposit of the customer deposits in order to repay a loan means that the customer is operating so that there is a net accretion of Federal Reserve deposits to the lending bank.

In our example of 100% loan deposit ratio with one month loans, over a month the borrowers at the bank will operate so that the bank receives Federal Reserve deposits equal to the value of outstanding loans. The bank, if it remains full "loaned up" will make loans equal to the amount repaid over the month. The end result is a scheme in which customers with outstanding loans are demanding bank deposits from the market by offering goods and services in order to be able to fulfill their obligations to their bank. Demand deposits are valuable in our economy, and are accepted for goods and services by units which do not have bank debts exactly because there are units with bank debts that need to acquire bank deposits to fulfill their obligations to banks.

By law and administrative regulation in the United States, banks which are members of the Federal Reserve System are required to keep some designated fraction of the deposit liabilities that are actually on their books in the form of deposits at a Federal Reserve Bank, or in the form of currency (which is mainly a liability of the Federal Reserve) in their

vaults. Bankers pay bankers by means of these deposits, they are money of to bankers, whereas other units pay each other by means of checks drawn on banks or by means of currency which in turn flows into and out of banks. This heirarchical system is what is known as a fractional reserve banking system.

As checks flow into and are presented for payment to a bank, they are credited or debited at the account of the bank at the Federal Reserve.

For non-member banks this crediting and debiting takes place on the books of a correspondent bank. The net difference between the amount added to and subtracted from the account of the bank as checks pass through the appropriate Federal Reserve, for correspondent, bank results in a change in the bank's reserve position. Position making is the activity of the bank management which either brings this account up to the required ratio, or uses the excess in these reserve accounts to acquire interest earning assets.

The demand and time deposits on the books of a bank are claims that the depositors have upon the bank. They are funds the bank has borrowed. The difference between total assets and such borrowed funds is the book value of the bank's equity, ite investment of the owners in the bank. In the United States in the 1970's the ratio of book value to assets was about 3% for some of the very largest banks and about 8% for many of the large banks. That is for every \$100 of assets owned by a bank some 92¢ to 95¢ was financed by borrowed money. The ratio of assets to owners equity at the end of 1974 ran from 2.8% for the most highly levered of the giant banks. Bank America and Banker Trust, to 5.9% for a more modestly levered giant bank, Mellon National Bank).

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In the American economy banking is a business. Banks are privately owned corporations chartered by the Federal Government and the various states. Banks are subject to regulation and control by government organizations; state banking commissions, the Federal Reserve System. The object of any bank's ownership and management is to achieve within the regulatory and legal constraints such profits and an expected path of profits so that the shares of the company trade at the highest possible price. These objectives are like the objective of any type of privately owned corporation, regardless of the lines of commerce being pursued.

The primary way bankers make money is by earning more on their assets than they pay on their borrowed funds. The cost of funds consists not only of the interest paid on various forms of savings and time deposits, but also of the cost of servicing not only time but more importantly checking deposits. Interest free checking deposits are not cost free to the issuing bank. The assets that yield income to banks are loans and investments, and of the two loans are by far the more interesting and important of the bank assets. All studies show that the line of commerce in which banks have the greatest comparative advantage is in lending, especially to business. Loans are actively solicited by banks. Under one label or another banks have "business development" departments whose main purpose is to find and solicit business borrowers. Banks sell loans.

A bank's lending function has three facets, the selling of a borrower on using the bank, the structuring of loans, and a post loan continuing relation in which the borrower is supervised. Bankers, In seeking profits, need to structure their loans and select their securities so that the borrowers and security issues are going, almost always, to be able

bank's profits for the bank to book loans which will not be repaid.

Before a banker lends or invests he needs to have a clear vision of how the funds that are needed to fulfill the contract will be obtained.

Borrowers and debtors have three sources of the cash needed to fulfill commitments on their borrowings; cash flows, refinancing or rolling over their debts, and the selling of assets. A well structured bank loan should be good for the borrower as well as the banker. For if the 🖛 proceeds of a loan are not used by the borrower in a way that yields the exborrower income (cash) beyond that needed to fulfill the contract, then the likelihood that the contractual terms on the loan will be fulfilled is compromised. A good bank loan officer knows that he is a "partner" of the borrower and that the best way the loan officer can succeed is by having the customer succeed. Furthermore a borrower who has used bank loans well is likely to return for additional loans and repeat satisfied customers are a source of bank profits. Thus loans that are used to finance activities that yield cash sufficient to meet the contractual commitments on the debt are 'best' from both the bankers and the customers viewpoints. If loans are made on the basis that anticipated cash flows will fulfill the contractual commitment, then the borrowers are engaged in hedge finance.

Another source of the cash to repay debt is the rolling over of debt, 4 the issuance of new debt to repay old debt. In a continuing operation, such as manufacturing, the various batches of purchased materials proceed through various transformations as they become output. In such a process the debts associated with the "first" batches may be paid off

even as new batches of raw materials are being acquired by using debt.

This sequential debt process can be replaced by a variable total debt in which the debts are divorced from individual bits of purchased materials.

The transformation from debts tied to a particular input to the production process to a debt structure, which includes short term debt, that is tied to the processes and profitability of a business organization allows for elements of speculative finance to be introduced into the debt structure. The financing of positions that includes assets which yield returns over an extended period of time by liability structures that include short term debts introduces the refinancing characteristic of speculative finance into the financial structure. In part a speculative financial structure is based upon cash flow considerations, even though some of the cash flows are later in time than the debt, but In addition a speculative financial structure is based upon the existence and continued normal functioning of financial markets and organizations in which, and to which, debts can be negotiated.

A third possible source of cash for the fulfillment of contractual obligations is from the sale or pledging of assets; the selling out of a position. Some loans are based not on the cash flows that the asset being financed will, yield but on the sales or market price of the asset. Loans made on the basis of the value of the pledged collateral are different in kind from loans that are based upon the value of the cash flows that are expected to be generated by income earning operations. True loans that are based upon prospective cash flows may be backed up in the mind of both the borrower and lender by the market price of the asset financed, and perhaps hypothecated but this is not the primary consideration.

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Cash flow oriented loans are made and entered upon on the basis of the whom be profitability of some prospect. Loans mainly made on the basis of collateral are based upon the expected market value of some set of assets. In many cases, the such as collateralized land loans, the underlying asset does not make enough to pay the interest on the loan. Construction loans too also depend upon the sales price of the, in this case, newly created underlying asset. Similarly loans for carrying stock market securities also depend upon the market value of the assets for their repayment. All of these asset value based loans, thous made on the basis of collateral value, the impart a Ponzi flavor to the financial structure.

Thus the financial structure and its overall fragility robustness emerges out of the types of loans and investments made by "bankers" cash flow orientation to financing activity tends to yield a robust financial structure, whereas a plethora of debt that is based upon expected asset values in markets tends to yield a fragile financial structure.

One aside is worth noting. In a bank's balance sheet the liabilities deposits, are of shorter duration than the assets and banks typically make position by selling liabilities to acquire needed cash. Thus banks are engaged in speculative finance. The very fact that banks live with speculative financial structures makes bankers hospitable to speculative financing by their borrowing customers. Liability structures by borrowers which require the sale of debt to pay debt do not affront the financial sensibilities of a banker. In fact bankers might very well instruct clients in the arcane art of financing position by short term debt. After all bankers are the leading merchants of short term debt.

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D. THE PROFIT EQUATION OF BANKS: LEVERAGE, THE EARNINGS ON ASSETS, THE COST OF LIABILITIES

Leverage

Profits is the income and capital-gains that accrue to the owners and management of an organization, the profit rate, or profitability, is profit as a ratio to owner's investment. For a bank, other financial intermediary, and ordinary business profitability can be broken down as the product of two components. The net return, or profits per dollar of assets and the ratio of the dollar value of assets to the dollar value of the owner's investment. This becomes na simple formula

This formula, simple though it is, helps us understand some of the dynamics of banking and finance and, in particular, how the endogenous determination of money supply takes place as a normal result of the profit seeking efforts of bankers and other financial operators.

"Owner's investment" on a set of books is the difference between
the value that is placed upon assets and that placed upon debts. For an
ordinary business firm the book value of capital-assets, touch as plant
and machinery, tof the organization is the purchase price of the asset
minus some charges for depreciation which are taken from the income account
over the time, the firms have used the ecapital-assets. These charges, called
depreciation or capital consumption, are largely conventional, being
defined by tax laws and accounting conventions. The book value of a

factory has little or no significance as an indicator of what price this capital-asset will fetch in the market place. The market price of any asset is derived from expected earnings. Thus the current owner's investment or equity interest in an ordinary business firm if the so called book value per share, it has little significance as a market value of the items the organization owns.

The portfolio of a bank, and other financial institutions, consists almost entirely of financial assets. Presumably these financial assets have both a face and a market value. In a regime of stable financial market conditions, where interest rates and other financing terms do not change much over a goodly number of years and where financial markets work so that financial instruments can be negotiated, the market value of the security portfolio will be approximately equal to the face value. The loan portfolio of a bank will presumably yield its face value, or close to it as the due date of the loans arrives. Thus it is may be presumed that a bank, especially during a period in which the economy is relatively tranquil, can be wound up as a business enterprise and end up with a bundle of cash that closely approximates the book value of the owner's equity. Our example of a bank whose loans will be paid within a month illustrated this point.

By the conventions of bank accounting loan loss reserves are "off the books" in the sense that these reserves are subtracted from the total loans outstanding rather than being added to the bank's equity account. Furthermore banks tend to value real estate conservatively. As a result during periods of economic tranquility a bank might well be worth a bits more on liquidation than its book value indicates. Because a bank's

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This difference between the market value of the shares and their book value can be taken as an indicator of whether additional investment in the activities carried out by the organization are worth while. For a corporation an excess of market valuation over book valuation indicates that a capital gain above and beyond the value of retained earnings will be available to the shareholders if the capitalization of the retained earnings, which become additions to the book value of equity, is at the same rate as the capitalization of total equity. If the market value of bank shares is above the book value, then there are strong incentives for bank management to retain earnings for investment in the business of the banks.

In one way of looking at bank leverage, the ratio of assets to book value reflects how much of other unit's indebtedness a bank can make generally acceptable by pledging its "good name." In the alternative, conventional, way of looking at leverage, the ratio reflects how much of other people's money a bank uses, along with the owner's investment, to acquire assets. For non-bank financial institutions, f savings banks, life insurance companies, Real Estate Investment Trusts, mutual funds, f leverage ratios clearly reflect the borrowing-owner's investment ratio. For banks, which can pledge their 'credit' in a variety of covert ways, the overt leverage ratio, as shown by liabilities actually entered upon the bank's books, underestimates the extent to which the investment of owner's is stretched to provide financing resources to other units.

1. Good

Banks by the very nature of their operations are highly levered organizations. Banks are also by their nature speculative organizations in the fundamental sense that the nominal term of their indebtedness is shorter than that of their assets.

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The data to enter into our formula is available from the balance sheet and income statements of a bank. If for example the books of a bank show \$25 billions in assets and the stockholder's equity account of capital, surplus, and undivided profits adds up to \$1.25 billions the bank will have an assets/owner's investment ratio of 20. If this same bank makes approximately \$187½ millions in profits after taxes and after allowance for loan losses, the ratio of profits to total assets will be approximately 0.7½%. Such a bank will yield 15% on owner's equity. If this bank paid out 1/3 of earnings in dividends, retained earnings will be 10% of the owner's investment the undivided profits and the surplus accounts will increase at a rate of 10% per year.

We should note that if there is another bank which is just as profitable as the bank in our example above in managing assets but has a total assets to owner's investment ratio of 12, the bank will make only 9% on owner's equity. Thus a bank with about \$15 millions in assets that has \$1.25 millions in stockholders equity, and which earns 0.7 1/2% on assets will earn \$112.5 thousand. Such a bank will earn 9% on owner's equity. If it pays 5% on owner's equity, retained earnings will equal 4% of owner's equity. The more highly levered of these equally profitable asset managers will be able to grow more rapidly.

The increase in book value due to retained earnings implies that an internal dynamic for growth in total assets exists in banking. This retained earnings dynamic can force bank management to seek a rate of growth of bank assets which may be 'uncomfortable' from the point of view of the requisites of stable prices and the potentialities for real economic growth. A not unusual assumption underlying some of the

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policy arguments with respect to monetary growth by traditional economists is that the real growth potential of the economy is something like 4% per year. These economists then advocate a steady 4% growth in something they call the money supply. Professor Friedman of Chicago is reknown for this family of policy proposal. In our example the bank that earns 15% on stockholders equity will endeavor to grow at 10% per year, whereas the bank that earns 9% will endeavor to grow at 4% per year. If the world is populated with banks that earn 15% on stockholders equity, then a need for bank assets to grow at 10% a year in order to sustain bank profitability will introduce an imbalance in Professor Friedman's non-inflationary growth "prerequisites". Profitable banks will be trying to grow at a 10% annual rate while the authorities are trying to constrain deposit growth to a 4% annual rate.

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To the economy "bank capital" does not represent any commitment of physical resources, we ignore the often pretentious palaces that banks inhabit and the collection of fancy electronic gadgets which amuse bank functionaries. The owner's investment in a bank is comingled with the borrowed funds of the bank and is used to acquire financial assets, is used directly or indirectly to finance business and household activity. However to the investor in banking, the alternative to investing in a bank, or in shares of a bank, is owning some other type of business, or shares in some other type of business. Thus investment in a bank must be as profitable as investing in other lines of business. The profit rate earned on bank capital need be, after allowing for differentials of risk, prestege, etc., as large as on other forms of capital-assets.

Thus if the general run of earnings per dollar of investment in ordinary

business is 15%, competitive market forces would tend to lead to the expansion or contraction of banking facilities as banks earn more or less than 15% on equity.

its earnings per dollar of assets its profitability will increase. Thus
there are two additive forces, retained earnings and the potential profitability of increased leverage, that can make the supply of finance from
banking increase at a rate that leads to an increase in the prices of capitalassets and in the prices and output of investment. From the fundamental
price equation for our type of economy, an increase in the ratio of
investment spending to consumption output leads to an increase in
output prices. Inflation results if banks succeed in increasing
their assets at the same rate as their equity.

Earnings on bank assets are made up of four parts, the return on

Earnings on bank assets are made up of four parts. The return on assets in the form of interest and discounts on loans and investments, second the fees charged by banks for acceptances, loan commitments, foreign exchange, paper processing, etc. the cost of liabilities, and labor and facilities costs, including the costs of management. A bank in seeking profits attempts to maximize its revenues even as it works to minimize costs. On the revenue side a banker is always seeking new and more profitable assets and additional ways to charge fees. On the cost side a banker operates to control operating costs even as he seeks ways to

In our perspective the effort to have bank assets grow at 10% leads to an increase in the investment/consumption employment ratio which implies that prices of consumption goods will rise. In standard quantity theory reasoning a rate of growth of money that is greater than output leads to a rise in prices. Our argument leads to a consideration of the financing banks do whereas quantity theory reasoning concentrates on one or more bank liabilities.

acquire the funds required in its operations at ever more favorable terms.

The pressure for growth and profits implies a pressure to innovate in financial usages.

A banker is always trying to find new ways to lend and new customers, and is always trying to devise new ways of acquiring funds, if of acquiring the means to accommodate customers. Furthermore if a bank is reasonably profitable then the retention of earnings imposes a target rate of growth on the bank. For the bank's profit rate to be sustained it is necessary for a bank to increase its assets and its liabilities at least at the same rate as its book value grows due to retained earnings.

If we assume that operating costs are under control there are two basic ways to increase a bank's profit rate. to increase either the net earnings per unit of assets or the ratio of assets to owner's investment, book value. The first implies a search for ever larger spreads between the rates paid on liabilities and received on assets. The spread among interest rates reflects either relative riskiness or time to payment dates, which is also a risk factor.

A banker, in order to increase the rates earned on assets, will be tempted to reach for yield by accepting either longer term or what the market takes to be higher risk assets. In order to decrease the rate paid on liabilities with any given level of market interest rates, a banker will endeavor to give ever greater promises of safety to 'depositors'. This

One measure of the riskiness of financial instruments is the expected source of the funds that are needed to fulfill financial contracts. Banks that seek increased spread will "accept" speculative cash flow relations and loans that are based upon the value of collateral rather than the expected cash flows. Profit seeking banking can induce speculative and even Ponzi financing by bank customers.

assurances with respect to deposits or other funds. The attempt to increase the spread between asset and liability rates leads banking organizations to increase the "guarantee" they provide either to depositors or to borrowers by creating new types of paper which carry, these guarantees.

The power of increased leverage to increase bank profits is impressive. If a bank which makes 0.7½% on assets decreases the ratio of capital to assets from 6% to 5% then the profit rate on book value will rise from 12.5% to 15% / a rise of 20% in the profit rate. If such an increase takes place over several years, the profit rate may rise from the 12.5% of our example to say, 13% the first year, 14% the second year and 15% the third year, (an approximate growth rate of 6% in leverage per year). If the bank pays out 5% on book value, the growth rate mandated by retained earnings will rise from 7½% to 10% over this period. As the increase in the growth rate of earnings takes place without the issuance of additional shares the per-share earnings will rise. Presumably, the stock market valuation of the shares will reflect this acceleration of the growth of earnings.

If a bank with \$1 billion of equity works with a 6% equity ratio, it will have \$16.7 billions in assets. If it makes .75% on assets, the bank's after tax earnings will be \$12.5 millions or 12.5% on book value. If the same bank could work with a 5% equity ratio it will have \$20 billions in assets. If it makes the .75% on assets, the bank's after tax profits will be \$150 millions or 15% on book value.

In the aggregate the leverage ratio for commercial banks increased by 50% between 1960 and 1974. This was the period over which both inflation and financial instability became major concerns of the economy. This

change in the leverage ratio for banks was part of a change in the financial environment which increased the weight of speculative and Ponzi finance in the total liability structure. This increase in the leverage ratio was a necessary input into the movement to financial fragility. Not only did bank leverage increase but the increase in leverage by banks facilitated an increase in short-term borrowing and in leverage by bank customers.

The leverage ratio of banks and the leverage ratio and speculative posture the name of business are two sides of a coin.

2. Bank Management Motivation

The rise in the stock market prices of bank shares that follows from a growth in profits due both to retained earnings and an increase in leverage is particularily important in a world of professionally managed institutionalized banks. In such a world the typical professional bank president need not be a rich man when he starts his career. As a bank president he is a hired hand of the stockholders, albeit a well-paid hired hand. Within our economy one objective of such hired hands is to achieve a personal fortune. Those who become business executives presumably put a higher premium on personal wealth and power than, for example, scholars. In a world where income is highly taxed it is difficult to accumulate a fortune by saving out of income. The most efficient route to a personal fortune for a business executive is by way of stock options and the capital gains that accrue to the holder of such options as the stock market price per share rises. Bank presidents are aware of this and as holders of stock

⁷ Preferential taxation of capital gains in a world of high income taxes and institutionalized corporations is a way of enabling corporate management to become rich; not a way of awarding thrift. Same scheme involving stock option and preferential capital gains treatment is necessary if a bureaucratic corporate capitalism is to be speered towards efficient production, product choice, and financing by the self interest and fortune seeking of managers.

options we can expect them to be interested in the price on the exchange of the stock in their bank.

The price of any bank stock is related to the earnings per share, the capitalization rate on earnings of the perceived risk class into which the bank falls, and the expected rate of growth of such earnings. If a stock earns 15% on book value per share and the capitalization rate on earnings of this risk class is 15%, then the value of the shares on the market will equal book value. If the capitalization rate on such earnings is 10% then the market value of the shares will exceed the book value of the shares. If the capitalization rate 16 20% then the market value will fall short so book value.

If the earnings per share are expected to grow, at say 10% per year, then the capitalization rate of current earnings will be the reciprocal for a perpetuity, of the non-growth capitalization rate minus the expected growth rate of profits. Thus if the normal non-growth capitalization rate for an asset in a particular risk class in an economy is 20%, and if a bank's assets and earnings are growing at 10%, then the effective capitalization rate will equal 10 times current earnings, for a perpetuity. Complexities arise if growth is viewed as more chancy than achieved earnings. After all market participants should recognize that sectoral growth at rates beyond the growth rate of the economy cannot go on forever, although many seemingly forget this fundamental fact in good times.

Thus if bank management can accelerate the expected growth rate of earnings by increasing leverage and still have the stock buying public believe in the security and safety of the bank's earnings, then the price

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of shares will rise not only because achieved earnings rise but also because the capitalization rate on earnings rise due to an increase in the expected growth rate. One highly disruptive element in the operations of a capitalist society that is dominated by institutionalized rather than entrepreneurial organizations and has tax laws such as we have is the way in which the private fortune seeking activities of the managers of institutionalized enterprises emphasize growth as an objective of the institution. For banking an emphasis upon growth leads to an effort to increase leverage.

Prudence and Surveilance

In the banking literature there is a concept of the "prudent banker," prudent banker presumably is one who accepts just the right amount of "risk." Risk to a banker can characterize assets, liabilities, and leverage. But the risk on assets, the effects of liabilities upon the viability of a bank, and the extent to which equity can be safely levered are not objective probability phenomena, here

are subjective uncertainty relations. One bank cannot get too much out of step with the elimate of what is acceptable at any moment of time. However what is acceptable reflects experience, predominantly quite recent experience. Thus prior to the early 1960's, when bank leverage began to increase; banks were able to improve their profitability by substituting higher earnings assets, hoans, hin their portfolios for government debt. The profit drive is a fixed factor in banking; the

Traditionally bank leverage and asset-liability manipulations were constrainted by customer and collegiate surveilance. In a regime where

banks can and do fail, such as the 1920's, and where such failures imposes losses upon depositors, stock owners, and borrowing customers, sophisticated users of bank services inquired into the portfolio and leveraging properties of the banks with which they dealt. In the era since World War II, customer's surveilance diminished in importance as deposit insurance operated to protect all depositors rather than just small depositors. Although by law deposit insurance only protects a limited value of deposits per account, ≠ rising from an initial \$5,000 to \$40,000 per account over the post-war period, \neq the technique used by the Federal Deposit Insurance Corporation of merging rather than closing and liquidating bankrupt banks tends to validate all the non-equity liabilities of a bank rather than just the posted guarantee per account. This technique of managing bank failures, together with the belief that the Federal Reserve stands ready to intervene to assure that a wholesale closing of banks does not occur, means that a bank depositor or customer does not need to be concerned with the viability of the bank with which he deals. As a result market forces, in the form of depositors surveilance, dome not now act to constrain bank leverage and asset-liability manipulations. The presumption is that such depositor surveilance has become redundante the regulatory authorities now provide the necessary surveilance.

Collegiate surveilance is the control that other banks and money market institutions impose as they set terms upon financial instruments which are exchanged among banks. Transactions among business firms and households set up debits and credits on books of banks to banks. Reserve deficiencies and shortages for certainly since the growth of the Federal Funds Market in the 1950's fare first handled by the lending or borrow-

ing of Federal Funds; ive by interbank loans. The entire correspondent network, which is fundamental to banking, is a device to regularize interbank relations.

Differentials in the willingness to lend or in the terms of lending on the Federal Funds market to a particular bank by other banks is the form in which collegiate surveilance appears. In the history of emerging difficulties for particular banks or classes of banks rate differentials appear, in which Banks in suspect positions pay premium rates on money markets. Thus in the emerging crisis of New York City in late 1975, New York City banks lost their preferred position in the Certificate of Deposit market. Similarily as early as the spring of 1974, Franklin National Bank had to pay premium rates in borrowing on money markets. A bank becomes unable to borrow on the Federal Funds market as views grows that it is having difficulties. As a result of such market surveilance a bank whose position becomes difficult is forced into borrowing at the Federal Reserve's discount window.

4. Bank Examination

With the attenuation and disappearance of customer and collegiate surveilance, the official surveilance of banks, through the bank examination proceedure, becomes of increasing importance. However bank examination, especially as operated by the various and sundry organizations that perform examinations, is an imprecise and largely ineffective control device. The philosophy of bank examination is largely the philosophy of accountants, which looks more towards proper proceedures, proper documentation, and the discovery of obvious fraud, than that of an inquiry into the economic viability of a banking organizations. It is perfectly possible for an examiner or examining organization to understand the

operations and look into the deals of a modest \$20 million bank. The problem of examination as a substitute for customer and collegiate surveilance becomes increasingly attenuated as bank size and complexity of bank operations increase. Controlling the exposure of a giant multibillion dollar bank through bank examination is a virtually impossible task.

To understand the lack of power of examinations as a surveilance device, all we have to do is recognize that the problems of banks in their dealings with the REIT's in 1974-76 were legacies of commitments undertaken in the form of lines of credit earlier in the 1970's. In particular examiners really have no power over a large multi-billion dollar bank. One cannot imagine an examiner threatening

cause of the exposure to real estate deals, although such examiner threats might be creditable for a small bank. However until a banks problems becomes so great that management recognizes the difficulties, the only recourses of examining authorities are the appointment of a conservator, and the withdrawal of deposit insurance.

bank examiners is the lack of an underlying understanding of the economics of banking in the bank examination proceedure. A bank is a massive cash flow machine. Deposits and withdrawals are cash flows, and assets are valuable only as they set up cash flows. Assets can set up cash flows by means of the fulfillment of the contract by the debtor, or by the

sale or pledging of an asset. For the sale or pledging of an asset to be

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a realistic possibility it is necessary for some financial markets to function in an appropriate way. For contractual cash flows to a bank to be realized the debtors cash receipts must fulfill expectations. But the debtors cash receipts ultimately depend upon various market phenomena, gross profits, sales, etc., being up to par.

Just as a sophisticated banker does, not take the asset values a potential borrower provides on his statement seriously, independently of the underlying cash flows or the underlying marketability of the listed assets, so examiners have to be cognisant of the underlying prospective cash flows of customers that are necessary if a bank's cash anticipation due to assets are to be realized. Thus bank examination must be a conditional economic analysis of the bank's operations if it is to function as a substitute for customer and collegiate surveilance. Without such relatively tight control of banking, by examination the fact that banks are profit seeking organizations that can achieve profit growth by expanding leverage implies that a likelihood exists that the Deposit Insurance organization and the Federal Reserve will, from time to time, to be required to act so as to protect banking from wholesale cash flow difficulties. That is if the propensity to lever and to manipulate portfolios cannot be constrained Deposit Insurance and the Federal Reserve may very well be required to bail out banking organizations from

time to time.

Such a bail out or attempt to prevent a bail out of banking from the becoming necessary can lead to actions that validate financial practices that led to the exposed position of banks. A newarranted rate of growth of bank reserves may from time to time be forced upon the Federal Reserve

mate by banks is that the check processing costs run about 3½% to 4½% of the dollar volume of deposits subject to check per year. This implies that when interest rates are substantially above 5% to 6% banks will tend not to have service charges and that when interest rates are lower, service charges will be levied on check account activity.

The handling costs for pass book savings accounts and certificates of deposit are much less per dollar of account, f mainly because these accounts are less active, f than for checking accounts. These service charges are of course covered by spread between the interest rate earned from assets and the interest rate paid on deposits.

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By law and by regulation, banks are required to keep cash reserves against demand and time deposits. These cash reserves are either in the form of currency in their vaults or they are deposits # at the Federal Reserve Banks for member banks or at correspondent banks for non-member banks. Vault cash and reserves do not earn income. Thus there is a "covert "cost for such cash holdings the interest income foregone by the bank. However, by law and administrative decisions the various types of liabilities absorb reserves in different proportions. Demand deposits absorb more reserves than do time deposits and liabilities Demand like repurchase agreements, Euro-dollar borrowings, and Federal Fund borrowings do not absorb reserves.

As reserves represent foregone income and as various liabilties absorb reserves in different proportions, bank management will operate to substitute less reserve absorbing liabilities for those that absorb

⁸ This implies that the supply price of bank loans is in the neighborhood of 1-1/2% above the cost of money.

for the differences in the covert costs in the form of required reserves. Furthermore whenever interest rates rise the overt cost of liabilities increases. Thus whenever interest rates rise banks step up their endeavors to substitute low reserve absorption liabilities for high reserve absorption liabilities. Inasmuch as demand deposits are the high reserve absorption liability, banks attempt to substitute other liabilities for demand deposits when interest rates rise. This endeavor to induce substitution will take the form of inventing new liability forms and the payment of higher rates on existing liability types that economize for reserves.

6. <u>Coda</u> — ≡ .

In the standard view of banking, the volume of reserves in existence determines the aggregate non-equity liability of a banking system.

However, a given volume of reserves can sustain different amounts of the reserves depending upon the composition of liabilities and the reserve absorption of liabilities. If the reserve absorption of different liabilities remains invariant, then, as interest rates rise, there will be a substitution towards reserve economizing liabilities of therefore and reserve will occur. Conversely as interest rates fall the higher reserve absorption liabilities can be expected to increase a proportion of that liabilities.

This phenomenon of a given volume of reserves being able to carry different amounts of bank liabilities implies that the financing of activity by banks can be responsive to the demand for financing. One

cannot think of an independent or mechanical determination of financing available from banks, one has to look at the banks as profit maximizing institutions. Bank profit maximization and the changing value of reserves as interest rates rise and fall combine to make the supply of bank finance responsive to the demand for bank finance. Once the banking process and the motivations of bankers are taken into account, it is clear that changes in bank liabilities cannot be considered as the result of a passive reaction by banks to exogenous change in reserves. Money in the sense of bank liabilities is endogenously determined.

Because banks are profit maximizing companies that need to compete with other businesses for capital, the earnings of banks on the "owners' investment" must be as good as the earnings available in other types of business. This is true even though the owners investment in banks, which have almost all their assets in financial instruments, does not use a comensurate amount of the economy's capital assets. Given the way bank profits depend on bank leverage this implies that any increase in the "owners' investment" in banks requires an approximately equal increase in bank total assets are in the aggregate banks will endeavor to increase their borrowed funds at at least the same rate as owners' investment increases.

The full return on owners equity to a stockholder consists of the dividends paid and the appreciation on the common shares. If a corporation retains earnings and invests these earnings so as to receive the same return as it receives on its base investment, then the market value of the stock should increase by the amount of the retained earnings. Thus the stockholders total return is equal to the per share earnings, although

rendon odd van part of this shows up as an appreciation in stock values.

Once the regular increase in per share earnings is built into the price determining expectations of stockholders, the price of shares moves from the static capitalization relation to a capitalization relation that allows for growth. Thus bank policies that retain and invest earnings are good for both the management, of banks, which has "stock option" benefits, and for the existing stockholders of banks.

Thus the earnings of banks in a high profit—high investment economy and theretonservative dividend policy of banks readily leads to an endeavor by bank management to achieve a significantly greater rate of growth of bank assets and thus bank liabilities, (including bank deposits) than the rate of growth that a capital using capitalist economy can achieve. True the availability of bank financing tends to induce investment, the but the financing of investment and capital—asset holdings in excess of the growth rate of output tends to bid up the prices first of capital assets, then of investment output, and finally of all output.

Monetary policy that is based upon an awareness of the limitations to the rate of economic growth will attempt to constrain the rate of growth of bank assets and liabilities by constraining the growth of bank reserves. The rate of growth of bank assets desired by bank management and mandated by retained earnings is substantially larger than the rate of growth of bank reserves which monetary policy aims to achieve. This divergence sets up a fundamental tension or dynamic in the banking system. This basic tension is amplified by the profit potential for banks from increased leverage. Bankers aim at having assets and non-equity liabilities grow at a faster rate than bank equity.

very the

In a world where Central Bank protection of bank liability holders was non existent , or sporadic the tendency to increase leverage was constrained by customer and collegiate surveilance. In a world where Central Banking in the form of deposit insurance gives well-nigh perfect protection to holders of bank non-equity liabilities, surveilance by customers and colleagues atrophies. As a result there are no longer any effective market barriers to the inflationary and destabilizing disruptions by of banks of partially by the giant banks which the authorities especially protect against failure. The protection by the authorities of the viability of the giant banks takes the form of intermittent large scale of reserves into the banking system.

If the disruptive influence that emanates from corporate banking is to be controlled, it will be necessary to devise ways of setting limits upon permissable leverage ratios and of constraining the rate of growth of bank equity to the targeted rate of growth of bank reserves. The above is a principle to guide policy, & But in an economy in which new usages and institutions always appear in response to profit opportunities it is a

A good section, my comments on which must be seen in the light of p. 39/58 being mining. Ded feel in places that reference should have been made to places where the current argument is presented in more places where the current argument is presented in more places where the current argument is presented in more places where the current argument is presented in more places where the current argument is presented in more places. May be a little scape for reduction in this section. May be a little scape for reduction in this respect.

E.. THE PROFIT EQUATION OF BANKS: RESERVES AS COSTS AND THE EVOLUTION OF FINANCIAL PRACTICES

The return on assets, the cost of liabilities, and the leverage on stockholder's equity are crucial in determining the profitability of banks. However the control the authorities exercise is not of the leverage ratio on equity, but rather the authorities try to control liability emission and asset acquisition of banks by controlling reserves or bankers' money available to banks. That is the Federal Reserve endeavors to control banking by controlling the volume of reserve assets which are available and required to carry specific liabilities. Control of the total volume of bank credit, which depends at least as much upon the nod of heads, past relations, and handshakes which reflect what is agreed upon for the future as it does upon the assets and liabilities that are entered upon the books of banks, is a virtually impossible task. All that the authorities can hope to control are the overt bank liabilities. In particular the authorities have historically operated upon deposit liabilities even though the deposit liabilities that are booked on any day reflect past agreements.

The standard control upon bank deposit liabilities is indirect. The standard way the Federal Reserve attempts to control bank credit and deposits is by controlling the amount of reserve money in existence and the ratio, of such reserve money to specified liabilities, that a bank must hold. These controls on reserves and reserve ratios, as well as the terms upon which banks can acquire reserves by borrowing at the discount window of the Federal Reserve banks, are the standard weapons of monetary policy. Namely the attempt to control money and money markets in order to guide the economy.

Letermination

The control of bank credit and bankers activity by means of control over a particular asset and the ratio that this asset must bear to various classes of liabilities sets the terms for bank profit maximizing behavior.

In current usage, the Federal Reserve does not pay any interest on the reserve deposit even though there is a return in the form of services that the Federal Reserve provides to member banks. For non-member banks the reserve deposits are specified by various state authorities and these reserve deposits of non-member banks are typically though not exclusively carried as deposits at member banks. Such bank balances again do not earn overt interest, but in the case of non-member/member bank relations the services that are provided in return for the member bank deposit are part of a negotiated agreement. Typically the services provided take the form of check processing services, especially today in an age of largely computer check processing.

As a result of the differential reserve absorption of various liabilities banks expend resources to invent and induce the use of liability forms that economize on reserves. Certificates of Deposit are bank deposits that use reserves more efficiently than demand deposits. When interest rates rose in the early 1960's banks actively began to sell these liabilities. Euro-dollar deposits are even cheaper in reserve deposit absorption than Certificates of Deposits, as are Federal Funds. The full development of ineligible acceptances, which can be viewed as a

Indeed!

In the Bert Lance affair early in Carter's administration it became public knowledge that negotiated services might be to a banker rather than to the bank.

further step in economizing bank reserves, has not as yet taken place, although acceptance credit increased rapidly in the 1974 "tight money" period and has continued to grow since then. 10

Over the post war period non-member state chartered banks have grown at a substantially faster rate than member banks. But these banks use deposits at other typically though not exclusively member banks as their reserve deposits. Thus the deposits of non-member banks absorb reserve deposits only as their deposits at member banks absorb reserves. If the reserve is 15% of demand deposits at both member and non-member banks, then the effective reserve absorption ratio of deposits at the non-member banks is 2.25%. Inasmuch as the correspondent bank business can be very profitable, the large banks that act as correspondents will provide much in the way of services to depositing banks, including the management of the reserve account so excess cash is invested in and deficits in cash are made up by selling and buying Federal Funds.

The pressure from profit maximization and the ability of banks to making their leverage means that constraints upon financing activities from reserve requirements will be met by devices that have the effect of evading reserve requirements. If the emphasis in the control of banking had been upon bank lending and investing, it would have been obvious that banking systems assets can and do grow relative to the reserves made available by the Federal Reserve. If the emphasis had been upon bank assets, rather than upon demand and other bank deposits as

As of this writing bankers acceptances can be viewed as the "instrument in place" which will grow very rapidly as a vehicle to circumvent constraint during the next period in which banks are hard pressed to fulfill their financing agreements.

money, it would have been evident that the demand for bank financing induces bankers to innovate in liabilities. If reserves do not respond to the demand for financing, then bankers will come up with ways of financing weaken the effect of asset acquisition that evade the reserve requirements.

Perceptions are limited by theory. To both quantity theorists and standard Keynesians it is money that is important. As a result of economic theory the path in time of one liability of banks, demand deposits, which is a major component of the community's effective money supply, is now elevated into well-nigh the beginning and end of the effect upon the economy of banking.

The reserve availability constraint, which the Federal Reserve operates, is not really a precise determinant of reserves available for demand deposits. What the Federal Reserve really controls is the volume of its own liabilities outstanding and the terms upon which member banks, and other units under special circumstances, can borrow at the Federal Reserve. The amount of currency in circulation is determined by the demands of households and business. In spite of the existence of deposit insurance, and in spite of the growth in the use of credit cards, the ratio of currency to total money supply has tended to increase in the past several years. If Furthermore during periods of economic uncertainty and financial instability and currency ratio has tended upwards

Currency was 28.6% of demand deposits in December of 1972 34.7% of demand deposits in December of 1977.

12		P	refor your owner	
Seas	sonally	adjusted:	billions of dollars	
	1972	1976	rate of increase	
	Dec.	Dec.	annual	
Currency in Circulation	\$56.9	\$80.5	9.1%	
Demand Deposits	\$198.4	\$231.9	4.0%	
Currency as a				
% of Demand Deposits	28.6	34.7	J	

(continued on page 63)

A rise in the currency ratio lowers the amount of bank earning assets that any given amount of reserve deposits can sustain. The increase in the currency ratio as felt uncertainty increases is one way in which the official and increased weight to liquidity is expressed.

Non-member banks which typically use deposits at member banks as their reserves have grown much faster than member banks during the post war era as a whole. Non-insured non-member banks have grown even faster than non-member insured banks in the recent past. Total assets at non-insured banks were \$33.4 billions in June 1975; a virtual quadrupling from the \$8.65 billions of December 1973. However this increase in non-insured non-member banks is largely the result of the opening of branches of foreign banks in the United States. Because these banks are branches of foreign banks and because loans negotiated in New York or Chicago can be entered upon books in Amsterdam, Frankfurt, or Tokyo, the potential financine capacity of these non-member/non-insured banks is much greater than the assets and equity they list indicates.

Because insured and uninsured non-member banks use ordinary bank deposits as their reserve deposits they have a virtually infinite supply of reserves available which they have not as yet been able to acquire.

At the end of 1976 there were \$618.7 billions of deposits at member banks and \$257.9 billions of deposits at non-member banks. If we assume a 10%

(footnote 12 continued from page 62)

The more rapid growth of currency than of demand deposits may in part be due to the increase in uncertainty with the inflation and depression/ recession of 1973-75. But the continued growth of currency relative to demand deposits in 1976 indicates that this is not the entire explanation. It has been suggested that the rise in the ratio of currency to demand deposits reflects the relative growth of a 'dual' economy in the United States where the second and still subsidiary economy consists not only of the traditional illegal activities, but also employment and purchases that are made in currency for tax avoidance purposes.

reserve requirement against deposits at non-member banks, then some \$26 billions of deposits were required for reserve deposits by non-member banks, \$26 billions is 4.2% of \$618.7 billions. The funds that could be used as bank reserves by non-member banks was large compared to the funds they actually used, even so the \$26 billion of demand deposits presumably owned by non-member banks supported \$257.9 billions of deposits, which was some 30.8% of total deposits.

Whenever interest rates increase, the burdens of the covert costs of retaining non-earning assets at Federal Reserve Banks increases. The higher interest rate the greater the disadvantage of membership in the Federal Reserve System. The more the Federal Reserve endeavors to constrain economic activity, perhaps in an effort to constrain inflation, by holding down the growth of the reserve base the greater the competitive advantage of non-member banks who have huge untapped potential reserves in the form of deposits in other banks. In fact as non-member banks can use deposits at non-member banks for reserves, the very growth of non-member banking, especially the growth of large multi-million dollar non-member banks, increases the stock of deposits available to be used as reserve deposits.

With the growth of both the absolute size of non-member banks and the proportion of total bank assets and total bank deposits in non-member banks the banking system increasingly takes on a hierarchical cast in which member banks use Federal Reserve Deposits and currency as reserves and non-member banks use deposits, mainly at member banks, and currency as their reserves. The thrust towards this heirarchical structure depends upon the growth of non-member banks either through chartering or through

shifts of membership. At the end of 1960 there were 13.5 thousand banks in the United States of which 6.9 thousand (51.5%) were non-member banks. At the end of 1976 there were 14,671 banks in the United States, of which 8,914 (60.8%) were non-member banks.

As the growth in non-member banks seems to be pro-cyclical and responsive to the demand for financing, the existence of non-member banks is one element that makes the supply of finance responsive to the demand for finance.

The ability to develop new ways of either creating reserves or operating so that reserve absorption is minimized is an essential property of a profit maximizing banking system. If it is desired that bank financing not induced increases in financial fragility, then it may be best to institutionalize maximum leverage ratios and maximum internal growth of bank stockholder's equity. If these maximum growth rates and leverage ratios lead to highly profitable banking, then free entry of new organizations into banking should be encouraged. The attempt to control bank credit by a reserve or cash asset ratio relative to deposit liabilities is a misplaced emphasis.

In discussing the use of the discount window as a source of bank reserves in our analysis of potential reforms of banking we will suggest ways in which membership in the Federal Reserve system can be made "valuable" the more valuable membership in the Federal Reserve System the smaller the likelihood that the supply of bank finance will both induce and support a transition to fragile finance.

supply "also refer to other financial institution and markets - hence next section. Cyclical as well as long term metals and well written sect.

An atmenting important and well written sect.

lata?

Banks are not the only highly levered set of financial institutions

F. THE PROFIT EQUATION EXTENDED TO NON-BANK FINANCIAL INSTITUTIONS

Savings and Loan Associations, Mutual Savings Banks, Life Insurance Companies, Sales and Consumer Finance Companies, and Real Estate Investment

Trusts are all highly levered organizations. These all are profit

maximizing organizations, even though some may be organized as "mutuals",

and as a result are responsive to changes in the demand for credit. Even

though the growth rate of non-bank financial intermediaries relative to

1960 book published their study, Money in a Theory of Finance, a study which over emphasized

their study, Money in a Theory of Finance, a study which over emphasized of a complex set of financial institutions and a large variety of financial

usages facilitates the responsiveness of the supply of finance to the demand

for finance. Furthermore once finance becomes fragile so that disturbances,

as exemplified by the problems of the REIT's in 1973-75, can occur the

significance of the non-bank financial intermediaries which actively financial

manage their liability structure increases.

Specialized financial intermediaries are often closely related to particular output sectors. The growth and development of sales finance companies in the 1920's was both a response to and a cause of the automobile boom. The development and rapid growth of the Saving's and Loan associations after World War II was related to the emphasis upon single family home construction. The REIT boom and bust of the 1970's was both a cause of and a response to the development of resort and retirement communities coincident with a suburban apartment boom.

Pension funds and insurance companies differ from savings institu-

tions, finance companies, and real estate investment trusts in that they are not especially tied to the financing of any particular type of activity, they are tied to a particular way of raising money. Saving Banks, Finance Companies, and Real Estate investment Trusts were originally oriented towards housing and household durable financing, and \overline{T} hey acquired their funds by various types of liabilities. The primary attribute of pension funds and insurance companies centers around the liabilities they emit, which are specialized contingent liabilities. Pension funds and insurance companies are organizations which tend to receive funds on a predetermined schedule and place these funds. Finance companies and R.E.I.T.'s are organizations which tend to place funds and then finance their position in a variety of ways. Savings banks do not have contractually scheduled receipts as do Pension Funds and Insurance Companies Thus even though they have one dominant type of liability they need to stay flexible and either have alternative financing available, or have an ability to shut off asset accumulation. As a result Saving's Banks, Finance Companies, and R.E.I.T.'s play a more active role in the cyclical dehavior of the economy than do pension funds and insurance companies.

The Finance Companies & both sales finance companies which primarily finance the purchase of automobiles and consumer durables and the consumer finance companies & which mainly finance small loans to households & are active liability management organizations. Aside from their equity investment & these organizations finance their positions in assets by emitting corporate bonds, borrowing from banks, and issuing commercial paper. Inas-

much as sales finance operations often work through a "point of sales" originator of their assets, they basically are a tap organization which responds to a demand for credit by acquiring funds to satisfy demand.

Namely

That is in their acquisition of their consumer and business loans these companies respond to market conditions they first make loans and then find the money.

For these institutions the initial effect of a rise in the demand for credit will be a rise in their bank borrowing, followed by a rise in outstanding commercial paper. Inasmuch as the standard procedure in financing by means of commercial paper calls for unused lines of credit at banks to equal to or exceed the amount of commercial paper outstanding, an expansion of the financing they do will run up against the limits set by the lines of credit. In order to free lines of credit longer term corporate bonds are issued. Thus the short term expansion is limited by bank lines of credit, the longer term expansion limits are set by the issuance of bonds.

Some basic data for commercial banks and other financial organizations is exhibited in Table __. The financial net worth to assets ratio for all the listed types of organizations, except Mutual Savings Banks, fell in the decade 1964 and 1974. In 1974 the financial net worth of the life insurance industry had fallen to 3.24% of assets, less than half of the 7.52% of 1974, A similar fall of about 50% was registered by

the Finance Companies which fell from 19.28% to 9.72%.

It is worth looking a bit more closely at the Finance Companies because these rather unconstrained financial organizations can operate nationally and do have a variety of asset and liability forms which they

use. In Table II the asset and liability structure of Finance Companies in both 1964 and 1974 as laid out. First of all the liability structure was affectively shortened during the decade. Whereas in 1964 "permanent financing" we equity and longer term bonds totaled 56% of assets, in 1974 these were but 47% of assets. Thus the dependence on short-term money market and bank financing increased. Either directly through loans or indirectly through backup commitments or unused lines of credit banks were supplying 44% of the resources in 1964 and 52% of the resources in 1974. The dependence on short-term financing and the vulnerability to sharp increases in interest rates increased remarkably over the decade.

Along side the change in liabilities the asset composition of Variable these organizations changed: Demand Deposits and Currency remained a relatively small, 4%, of assets, and long-term assets like home mortgages remained in the 10%-11% range. The big change was in the shifting portions of consumer (household) and (business) loans. In 1964 56% of the total assets were in household loans and 30% in business loans, whereas in 1974 49% of assets were household loans and 35% were business loans. Household loans were the original special business of these organizations. However they acquired skill and connections which enables them to raise money from banks and from investors in commercial paper. During the decade 1964-74 they exploited these "assets" to raise funds which increased their asset-equity ratio from the neighborhood of 5 to more than 10 and they shifted their portfolio towards business loans.

Our financial structure consists of a large number of different types of institutions, which endeavor to maximize profits by levering on owner's equity even as they make on the carry borrow, at a lower rate than their assets earn. In order to make on the carry

TABLE I

		1974		
	Total			Financial Net Worth
	Financial	Total	Financial	+
	Assets	Liabilities	Net Worth	Total Financial Assets
				%
Commercial Banks	784.6	740.4	44.2	5.63
Savings & Loan Assoc.	296.1	277.6	18.5	6.25
Mutual Savings Banks	110.3	102.4	7.9	7.16
Life Insurance Co.'s	255.5	247.2	8.3	3.24
Finance Companies	92.6	83.6	9.0	9.72
R.E.I.T.'s	16.9	16.0	.9	5.33
		1964		
Commercial Banks	306.4	284.2	22.2	7.25
Savings & Loan Assoc.	119.4	111.5	7.9	7.07
Mutual Savings Banks	54.2	49.8	4.4	7.08
Life Insuarnce Co.'s	144.9	134.0	10.9	7.52
Finance Companies	38.9	31.4	7.5	19.28
R.E.I.T.'s		€	-	S

1974/1964 Growth Rate: Average

Commercial Banks	2.561	9.86%
Savings & Loan Assoc.	2.480	9.51%
Mutual Savings Banks	2.035	7.36%
Life Insurance Co.'s	1.763	5.84%
Finance Companies	2.380	9.06%

Source?

US\$PU 5

TABLE II

Finance Companies

F.Co. As a % of Total Financial Assets	1964	1974
D.D. & Currency Home Mortgages Consumer Credit Loans to Business	4.63 10.03 55.53	4.00 11.66 49.24
Financial Net Worth Corporate Bonds Bank Loans NIC Open Market Paper	29.82 19.28 36.76 24.94 18.77	9.72 37.80 21.06 30.99

Source?

they have to offer convenience or security. Their liabilities have to be viewed as embodying more of Mr. Keynes' liquidity '%' premium than the bulk of their assets. In a world in which normal functioning is taken to exclude the likelihood of financial difficulties, such financial intermediaries can expand their liabilities relative to their net worth without paying any appreciable cost in terms of decreasing the "%" component of their liabilities. In particular, the increase in the proportion of commercial paper in the liabilities of finance companies, even as the total assets of these organizations more than doubled in the decade, meant that the contribution of Finance Companies to the financing of activity was increasing. In a sense Finance Companies and R.E.I.T.'s, which also operated on borrowing on the commercial paper market, are devices for expanding the leverage on bank credit by creating overt financial instruments, commercial paper, on the basis of a covert financial relationship.

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G. THE RESPONSIVENESS OF FINANCING TO DEMAND

The standard text book version of banking and financial theory, which underlays the way the Federal Reserve views its responsibilities, holds that the Federal Reserve, by controlling the reserve base, effectively controls the amount of demand deposits and bank financing. We have shown that the relations that determine bank and financial intermediary profits lead to behavior that tends to induce growth rates of money and finance that are not the same as Federal Reserve desires.

From the point of view the problem we have set ourselves, which is to explain how investment is financed and the effect of financed investment upon system behavior, it is clear that the narrow focus on the means of conventional payment that guides the Federal Reserve is not warranted.

Money is one of several instruments that imposes a financing veil between the proximate and the ultimate owner of capital-assets. The deposit liabilities of other financial institutions, those financial instruments such as commercial paper which partake of the flexibility of supply that bank liabilities possess, as well as corporate bonds and equity shares are other, instruments.

The unique aspect of money as a financing instrument is that it is created in the act of financing by a bank and destroyed as the commitments on the debt instrument are fulfilled. Because money is created and destroyed in the normal course of business events, the amount outstanding must be responsive to the demand for financing. Banks are important precusely exactly because they do not operate under the constraint of a money-lender; they banks do not need to have in order to lend. This ability of the supply of finance to be flexible means that projects which need funds over a long period of time can arrange for such funds as needed. A line of credit

and a commitment by a bank are as good as the possession of funds.

The capitalist investment process depends upon the flexibility which banking given to the financial system. But bankers and other money market operators, being profit minded, are always seeking new and novel ways to "turn a dollar." It is necessary for the financial system to be responsive to business demand for financing. However if financial innovation and banker's aggressive seeking of "borrowers" outpaces the demand for investment financing, the excess funds will be used to finance a demand for existing bonds, common stock, and capital-assets. A rise in the price of capital-assets relative to supply price of investment output will occur which increases investment activity and thus profits, leading to a further rise in the price of capital-assets and long lifed financial instruments. Purely financial markets can trigger a speculative boom.

Financial innovations are common and occur regularily. However

the acceptance of financial changes which typically involve the substitution of a promise to pay bank deposits for bank deposits depends upon an attenuation, however trivial, in the subjective evaluation of the liquidity premium embodied in holding money. A period of successful functioning of the economy, during which such attenuation of the value of liquidity takes place, leads into apperiod in which aggressive financing practices are acceptable. Danks, nonbank financial institutions, and money market organizations experiment with new liabilities and increase their asset-equity ratio without their liabilities losing any significant credence During a period of aggressive finance. Instead of having banks and other financial institutions respond to demand for financing, a speculative financial boom emerges in which the readily available supply of finance raises capital-asset prices and induces

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investment projects. In the story of REIT's and the resort/retirement condominiums, one element leading to the overbuilding was the pursuit of and the inducement of loans by REIT's, which, in turn, were being pursued and induced to borrow from banks, commercial paper dealers, and investment bankers.

Banking and finance can be and periodically are highly disruptive forces in the functioning of our economy. Without the banking process the flexibility of finance needed for a dynamic capitalism cannot exist and with the banking process a destabilizing ability to speculatively finance activity is introduced. The destabilizing aspect of banking should not be surprizing after all bankers are specialists in providing short-term financing to business, government, and households, and the banker sells his services by "teaching" customers how to use bank facilities. Bankers cannot make a living unless business, government, and households use debt.

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H. BANKING AS AN ENDOGENOUS DESTABILIZER: THE CENTRAL BANK AS THE LENDER OF LAST RESORT

banking that largely determines the behavior of the Federal Reserve and the other Central Banks in advanced capitalist economies, focuses upon the "creation" of demand deposits and thus the money supply by banks. This theory of the effect of banking has led to a game that is played between the Central Banks, henceforth to be called "the Authorities", and the profit seeking community of the banking institution. In this game "the Authorities" impose rates and regulations and engage in operations in an effort to get what the Authorities consider to be the right amount of money, for the appropriate set of money market conditions, and the banking community invents and innovates in order to get around the rules and to

munity invents and innovates in order to get around the rules and to circumvent the effects of the operations. That is the Federal Reserve may constrain the rate of growth of the reserve base but the banking community will devise ways of making reserves more efficient.

Fundamentally this is an unfair game because the entrepreneurs of the banking community have much more at stake than the bureaucrats of the Central Banks. In the post war period of economic expansion the initiative has almost always been with the banking community and "the Authorities" have often been "surprized" by the changes that have taken place in the way in which the various markets operate. The profit seeking bankers almost always win their game with the Authorities, but in winning the banking community destabilizes the economy the true losers are those that are hurt by unemployment and inflation.

It is the self interest of the butcher and the baker that leads to

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the provision of meat and bread. This dictum, due to Adam Smith, has led to the proposition that the pursuit of self interest leads to the achievement of "market equilibrium". The meoclassical results follow from this "self interest" proposition. It is in the self interest of bankers to "make loans", to spread the use of their services and it is in the self interest of investors to use bankers services as long as the price of capital assets exceeds the supply price of investment goods. However, whereas in commodity production the process of supply production generates after the fact incomes equal to the market value of the supply, in financial markets with responsive banking, the demand for bank finance generates the supply of finance and simultaneously, a supply of finance in excess of the demand for finance at a current relative price of capital assets and investment output will change the relative prices and thus the demand for finance.

In a world with capitalist finance it is no longer true that the pursuit by each unit individually of its own self interest will lead an economy to equilibrium. The self interest of bankers, levered investors, and investment producers can lead to inflationary expansions and deflationary as well as unemployment inducing contractors. Once capitalist finance is introduced as an attribute of an economy the supply and demand analysis in which market processes lead to an equilibrium will not explain the behavior of the economy. Such an economy has endogenous destabilizing forces, market processes lead to the financial fragility that is a prerequisite for economic instability.

The regime of rule and regulations by the Authorities, the chartering restrictions, and the techniques that have been devised to determine the

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volume and effectiveness of bank reserves are devices introduced into the economy to control the destabilizing forces emanating from banking and finance. However we live in a world in which the dominant view from economic analysis is that these historically determined arrangements reflect primitive superstition and ignorances the phenomena with which bank regulations and discretionary power are designed to deal do not exist in nature. Extensions of this view include propositions to the effect that the instability, the booms, inflations, crunches and recessions of recent years are mainly due to the ill-advised efforts to control instability.

We therefore have a paradox in that institutions such as the Federal Reserve, which were introduced into the economy in an effort to control and channel a set of disruptive phenomena, banking, are now "slaves" of an economic theory which denies the existence of these disruptive phenomena.

Today's standard theory argues that the Authorities should focus only on one set of numbers, the money supply, the and should operate to achieve a with tangent to the existence of the set of the existence of the set of numbers, the money supply, the money supply that the set of the existence of the set of numbers and the existence of the set of numbers are the existence of th

being made by authorities who wear blinders which restrict their vision to but a small part of the relations, that reflect financing activities. and they ignore the process by which monetary phenomena affect activity.

As a result of the money supply blinders that the authorities wear,

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the way in which velocity increasing (decreasing)—liquidity decreasing

(increasing) portfolio transformations occur and how these changes affect

income, employment and the domain of stability of the financial system

and the economy are not significant input to the making of monetary policy.

As a result the erosion of the equity base of banks, the growth of

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of covert liabilities were virtually ignored by the Federal Reserve until
financial markets tended to break down. At this times the primitive fears
and the original reason for being of the Federal Reserve comes into play,
and the Federal Reserve pumps reserves into the banking system and acquires
bank assets that are losing value in the market in an attempt to sustain
the prices of selected assets. In these circumstances the Authorities act per
as a lender of last resort.

Whenever the Authorities act as a lender of last resort they both increase the reserve base of banks and validate financial usages. Whenever the hands of the Authorities have been forced, so that they intervene as lender of last resort, many financial institutions, in addition to those that are in immediate danger of failing, are in taut positions. As a result lender of last resort intervention by the Authorities is followed by a period of "financial" retrenchment and conservation. As was argued in chapter ____, in a modern capitalist economy with a large government _____ automatic government actions, as well as discretionary policies to alleviate unemployment, tend to sustain profits and employment. The downward spiral of history is aborted.

One result of the lender of last resort action combined with the huge government deficit that now automatically occurs after a financial trauma is that the reserve base of the banking system is increased by a large amount, and the asset structure is changed so that the government debt holding increases. The banks in effect store up financing ability for future expansions. Because of the rapid halt to the downturn that results from central bank action and the massive government deficits, financial disturbances that force lender of last resort intervention by

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the Authorities no longer lead to price decreases. In fact, they may but barely slow down the rate of inflation. The actions, # automatic and discretionary, # that are taken to prevent a debt deflation set a groundwork for a subsequent burst of expansion and inflation.

Over an expansion $\boldsymbol{\ell}$ as financial innovations and portfolio transformations make the supply of finance responsive to the demand, new financial instruments and new ways of financing activity develop. Typically when the "crunch" comes, defects of the new ways and new institutions are revealed. The authorities intervene to prevent $\frac{a}{\lambda}$ localized weakness from leading to a broad decline in asset values this intervention takes the form of accepting new types of instruments into Federal Reserve or the Authorities portfolio. As a result the intervention by the Authorities tends to validate the new ways. Thus the intervention by the Central Bank to prevent a serious decline in income and asset values sets the stage for a broader acceptance and use of financial instruments which were introduced in prior expansions as a way of economizing on reserves or of increasing effective bank leverage. Thus the actions taken by the Authorities to abort a debt deflation increases the reserves that are available for banks and validates some additional financial instruments. Intervention by the Authorities to prevent a debt deflation sets the stage for a subsequent inflationary

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expansion both by increasing reserves and by validating financial instruments and ways of doing business that increase the overall efficacy of reserves during the subsequent expansion.

If the disrupting effects of banking are to be constrained, the kept within bounds, then the Authorities must drop the blinders due to theory which restricts their responsibility to the course of demand deposits and

The reserves of commercial banks are mainly the result of the ownership of government securities by the Federal Reserve. This government security/open market technique of supplying reserves to the banking system is not the way reserves were supplied to the banking system in the early years of the Federal Reserve System. At that time the reserves of the banking system that were not due to gold were due to borrowings by banks at the discount window. The resurrection of the discount window as a normal source of bank reserves is a way of tightening Federal Reserve knowledge of developments in banking and control over commercial banks. For if the commercial banks are active borrowers at the Federal Reserve discount window then they will accept and be responsive to the wishes of the Federal Reserve with provide any p

As long as bank reserves are mainly the result of Federal Reserve open market purchases of government securities rather than the result of discount window borrowings by banks, the giant banks in particular will be virtually immune to Federal Reserve pressures. Only if the normal functioning of banks requires them to borrow at the discount window will the capital adequacy and asset structure of banks be under firm Federal Reserve control. In reforming the banking system techniques for shifting from the present reliance on open market operations towards a greater permal functioning utilization of the discount window need to be explored.

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I. ADDENDUM: The Structures of Banking and the Structure of Industry; The Symbiotic Connections Among Giant Banks, Capital Intensity, and Giant Corporations

There are a wide variety of banking systems around the world in terms of the number and size relative to the economy of banks. In most advanced capitalist economies the banking system consists of banks which have branches all over the country. Such nationwide branch banking typically results in the country having but a handful of banks, with a big three" or a "big five" dominating the banking system.

In the United States the various states charter banks. Whereas non-financial banking corporations, which are also chartered by the various states, are allowed to have facilities in any state, banks are allowed to have full service offices only in their own state. Furthermore the various states determine the extent to which banks can have offices. In some states, like California, banks can have branches throughout the states. In others, like Illinois banks are restricted to one office.

One aspect of the restrictions on nationwide branching and the restriction upon branching in some of the states is that there are 14,671 commercial banks in the United States in 1976, their total assets were \$1,031 billion and the assets of the largest banks were in the order of magnitude of \$70 billion. This facet of the American banking system makes it more competitive than the banking system of say Britain or Canada, and it also affects the lines of business and the nature of the client that banks can service.

Although \$65 billion, \$10 billion, \$100 million and \$20 million banks are combined in the aggregate data on banking and

although the demand deposits of these banks are included in the money supply, these banks are engaged in quite different lines of business.

Whereas the 10 largest banks in the United States might each have half or more of its deposits in "offshore" or "foreign" branches, the \$1 billion, \$100 million and \$20 million banks will not have offshore branches.

One corollary of the differences in size among banks is a difference in the clients they service; the businesses to which they lend. Although state laws might modify the rules for smaller banks, the regulations that guide bank behavior usually set an upper limit of 10% of capital. surplus and undivided profits on the amount that can be lent to any private nongovernment borrower. Thus a sixty billion dollar bank with 30 dollars of assets for every dollar of stockholder equity will have a maximum loan limit set by states or regulations of 200 million dollars. A \$20 billion dollar bank with a 5% equity/asset ratio will have a \$100 million maximum to the credit it can extend to any one customer, and a \$100 million bank with a 7% equity/asset ratio will have a maximum loan limit of \$700 thousand.

It is obvious that the giant and large corporations will find it more convenient to borrow from the giant banks. For many of the very largest non-financial and financial corporations, and for many very large scale projects such as the Alaskan pipe line, the amount of bank borrowing that is needed exceeds the capacity to lend of any one particular bank. In such cases a "syndicate" is formed in which one "lead" bank takes the initiative in negotiating and supervising the credit and other banks participate.

When a large business firm like W. T. Grant goes bankrupt the details

of its bank borrowing arrangements become public. It takes a syndicate of manageable size to arrange a \$200 million or \$400 million line of credit when the individual pieces are \$10 to \$40 million such syndicates would be difficult to manage if the maximum that any organization can lend to one corporation is even as large as \$5 million. Thus banks with loan limits of less than \$5 million dollars are effectively barred from lending to the giant businesses and banks with loan limits of \$1 million or less are mainly restricted to the financing of what are small businesses in the present United States economy.

Because banks become implicit partners of the businesses to which they lend, the existence of many banks with loan limits that are modest, given the dimensions of the United States economy, means that there are a large number of banks whose prosperity depends upon the prosperity of these smaller businesses. In countries where a few giant banks dominate the banking business there are few if any banks whose prosperity depends upon the existence and growth of smaller enterprises. Although the giant multi-branch banking systems in the United States, such as the Bank of America in California, do make a multitude of smaller loans to modest sized businesses the overall prosperity of these banks is not totally tied up with the success of these smaller businesses. On the other hand the viability and prosperity of the banks with modest limits upon the lines of credit they can extend depend largely upon the success of business firms that require medest amounts of credit.

Thus the existence and prosperity of smaller businesses depends in part though not in total upon the existence and prosperity of banks which have modest limits to the amount they can lend to any particular customer.

A country's decision on the structure of its banking system will influence the size and competitive structure of its producing and distributing businesses. Banking's influence upon the economy is pervasive. Not only does corporate banking act as a destabilizing influence on the economy,

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