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Chapter IV. The Emergence of Financial Instability

Hyman P. Minsky Ph.D.

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Hyman P Minsky
Professor of Economics
Washington University
St. Louis U.S.A.
+
Visiting Scholar
(1978-79)
Confederazione
Generale
dell Industrie
Italiano

Chapter IV

The Emergence of Financial Instability

Introduction

The "near miss" of 1974/75 was not the first near crisis of the post-war period. Earlier near misses had occurred in 1966 and 1969/70. During the first 20 years after World War II (1946-65) there was an absence of financial instability whereas three serious threats of financial instability occurred in the decade starting with 1966. The credit crunch of 1966 was the first post-war crisis that forced the Federal Reserve to act as a lender of last resort. Whereas the first 20 years after World War II were an era of economic tranquility and progress" the years since have been turbulent: A marked change in the normal behavior of the economy took place in 1966.

William Jennings Bryan's protest "Thou Shall Not Crucify Mankind on a Cross of Gold", the Money Trust", the Aldrich Committee, the organization of the Federal Reserve System and Franklin

-- Roosevelt's call to drive the money changers from the temple are "phrases" which remind us of the monetary and financial systems were the focus of political controversy.

The historic debate about the proper organization of the monetary and financial systems has been muted since World War II. The adequate performance of the economy and an unusual absence of crisis in the domestic and international banking and financial systems during the first 20 years after the War was taken to mean that after well nigh 200 years of experimentation we had finally gotten things right. However even in the absence of political controversy about "money" and significant legislation, the monetary and financial system was undergoing change. The dynamics in the financial system was imposed by profit seeking businesses and financial institutions and households managing their financial affairs. This dynamic led to new financial instrument and institutions emerging along with changes in the significance of continuing institutions and usages. Financial innovations along with legislated and administrative changes that reflected the "aura" of success of the 1946-65 years have combined with changes in portfolios to transform the financial system. This evolutionary process transformed a financial system that was impervious to financial crises into one that was susceptible. Since financial instability once again surfaced in the mid-60's, the evolution of the financial system has continued perhaps at an accelerated pace.

Even though the economy has behaved in a generally unsatisfactory way since 1966 it nevertheless is true that no serious depression has occurred. The events of 1966, 1969/70 and 1974/75 should remove any doubts that a serious depression could happen but we also know that policy and structural characteristics can combine to abort a threatened deep depression. It should also be evident that success in aborting a deep depression has not been a free good: the turbulence and the inflation of recent years is the price paid for the success in averting disaster

I. An Aside: Some Organizing Principles

Before we look at what happened to transform tranquility into ~~in the era between the end of World War II~~ turbulence ~~and the financial disturbance of 1974/75, it is best to introduce~~ some organizing principles will be introduced. ~~into the discussion.~~ Our economy is ~~a~~ capitalist ~~economy, in which~~. It uses complex and elaborate capital equipment which is privately owned, and ~~with~~ has a sophisticated, complex, and convoluted financial system which allows the "indirect" ownership of wealth. Because it is capitalist ~~it~~ our economy depends upon the persuit of private gain ~~— or profit —~~ to organize production and ~~to organize~~ the formation and control ~~over the~~ of capital assets. ~~used in production.~~

Because ~~we~~ ~~our system is so organized that~~ debts are used to finance control over capital assets, ~~one way to look at~~ our economy can be ~~is~~ ~~taken to be~~ ~~as~~ viewed as a complex system of money in - money out relations. ~~Any~~ Every financial instrument -- short term note, bond, deposit, insurance policy, shares -- is a commitment to pay cash at some time. The time may be precise -- may be ~~written~~ specified in~~to~~ the contract -- or it may be open, - conditional upon events. ~~Open contracts to pay cash may be like the~~ Deposits at banks and savings institutions, ~~in which cases the~~ where payment ~~is~~ will be at the "demand" or "order" of the depositor, ~~or the payment may take place when a contingency occurs, as with a~~ - and contingent payment contracts such as pension, ~~a~~ or life insurance ~~contract~~ agreement, ~~and other contingent payment commitments~~ ~~or an endorsement on a third party's note~~ are open contracts.

Common or equity shares are ~~a~~ peculiar contingent commitment ~~to pay cash~~: the firm must make "profits" and declare dividends for the owner of equity shares to ~~yield~~ receive cash ~~by contract~~, ~~to its' owner.~~

~~Thus~~ This paper world of financial contracts ~~our economy can be considered as a set of instruments~~ sets ~~setting~~ ~~that set~~ up dated, demand, ~~or~~ and contingent cash flows. The debtor needs to get cash to fulfill these commitments. The cash can be obtained from cash on hand (which only moves the problem back one step), from contributions to the production of income (wages and profits), from the cash generated by owned financial contracts, by the sale of physical assets, by the sale of financial assets, or by borrowing. The above list exhausts the possibilities except for the creation of cash — which is legally open only to the sovereign and in a special way to banks.

A firm's balance sheet, which lists physical and financial assets on one side and liabilities on the other, can be viewed as stating the ~~cash receipts and payments that are expected or required to take place.~~ sources and uses of cash. The difference between sales revenues and out of pocket costs are the "gross profits" and this cash flow is imputed to ~~One aspect of the cash inflow from~~ the physical assets~~, those due to their being used in production~~ "earned" because of the firms capital assets and 'organization' ~~are the gross profits.~~ Other cash flows to a unit are from ~~the~~ financial instruments that are owned; these cash flows are from contract fulfillment by others. In addition to the cash flows due to gross profits and contract fulfillments ~~cash flows~~ a unit can acquire cash by selling ~~assets, either~~ physical ~~assets~~ or financial assets. ~~The gross sales proceeds of a company due to~~ its current output is a cash flow that can be ~~is broken down into~~ various ~~three~~ cash flows~~;~~ such as the ~~a~~ wage bill, profits, and the ~~sale~~ cost of purchased ingredients.

~~The~~ Liabilities are commitments to make payments. These payments can be dated (as with bank loans or bonds), demand, or contingents. The payment commitments are on account of both principal and interest: debt repayment and ~~debt~~ servicing are ~~both~~ included in ~~the~~ payment commitments. ~~The~~ Cash to meet ~~these~~ commitments can be obtained either from the profit cash flows ~~such as profits~~, ~~the~~ cash on hand, the sale of assets, ~~or by selling assets~~ or borrowing. ~~If a~~ unit that expects ~~that~~ its ~~the~~ cash flows out over a time period to ~~will~~ exceed the cash flows in ~~then the unit~~ is engaged in speculative or Ponzi finance: Aside from the trivial case where the engaged in speculative or Ponzi finance unit has sufficient cash on hand to meet this imbalance, the unit expects to obtain the cash required to satisfy its debtors by selling some assets or further borrowing.

A unit that expects its cash receipts to exceed its cash payments in each time period is engaged in hedge finance

Banks, deposit institutions like savings and loan organizations, and other users of short term and demand debt are faced with the possibility that in any short period the cash outflows will exceed the cash receipts. Units particularly vulnerable to cash drains due to the nature of their liabilities will tend to hold a large amount of cash or readily marketable assets or have some guaranteed refinancing, ~~on hand to meet such contingencies. However once this cash is drawn upon, then the problem arises of replenishing the cash, holding cash is a temporary expedient~~ ~~to a cash requirement~~ any cash are

~~If we consider the assets of any unit we can identify~~ The ~~these~~ assets which cannot be readily used to generate quick cash are readily identifiable. These ~~These~~ assets, such as the physical plant of operating firms and loans in portfolio of banks can be called the "position" of the unit; they are the "stock in trade" of the organization and are of term specialized to the organization. If ~~If~~ there is a sudden cash drain from ~~out of~~ the unit, these assets ~~basic to the operations of the unit~~ cannot readily be ~~be directly~~ used to generate cash. The needed cash can be generated only by dealing in other assets or borrowing. The act of acquiring cash to finance the assets that are essential to a units business is called "making position", and the instrument used to "make position" is the position making asset or debt. An asset or debt is a good position making instrument ~~asset~~ if it has a broad and active market; if there are many sales and purchases of this instrument each day. Furthermore the market for a position making asset should ~~should~~ be resilient, in that if the price of this asset falls a bit there will be a flood of orders to buy this asset; its price will not change ~~fall too~~ much under "normal" sales pressure.

Perhaps this position making problem can be better visualized if it is recognized that the "asset acquisition" and "cash management" aspects of a bank, financial institution, or large business ~~ordinary corporation~~ are usually ~~often~~ separate functions.

~~Modern~~ Commercial banking largely takes the form of lines of credit made available to borrowers. These lines of credit are drawn down as the borrowing customer's business requires. As a result ~~Thus almost simultaneously~~ a loan will appear on a bank's books at the same time ~~and~~ the borrower ~~will~~ draws on ~~checks to pay out~~ the proceeds of the loan. The lending bank loses its cash ~~With lines of credit banking~~ ~~clearing loss will be generated~~ simultaneously with the activation of ~~almost immediately as~~ a loan ~~is made~~. ~~Assuming we are dealing with~~ For a member bank, a debit ~~deficiency~~ in the bank's deposit at its Federal Reserve bank will appear ~~almost~~ simultaneously with a loan. ~~the lending bank will lose in the clearings.~~

In each bank there ~~usually~~ is an ~~some~~ executive who is ~~has the~~ responsible ~~responsibility~~ for assuring that a bank's "cash position" - for member banks the deposit at the Federal Reserve - is kept at the required level. This official needs to be able ~~have the power~~ to generate cash flows in favor of the bank. The usual text book statement is that a bank which has a deficiency in its reserves will ~~act to~~ restrict lending. In fact in modern line of credit commercial banking each day's loans are ~~mainly~~ the result of prior commitments. The loan portfolio and a bank's loan strategy are ~~is~~ not subject to rapid changes ~~adjustments~~ in order to bring reserves into line with reserve requirements.

Thus each "banker" must be able to take ~~some~~ actions which ~~will~~ assure that ~~a~~ cash flows in its favor will take place. ~~The ability to force cash to flow in~~ Ones ~~your~~ ~~favor is a necessary condition for the wide acceptability of a unit's liabilities. That is a~~ A unit's commitments to pay cash will be widely acceptable as a liquid or monetary asset if it seems certain that the unit can by its own actions force a net ~~assure that the~~ cash flowing in its favor ~~to the unit exceeds the cash it needs to pay out.~~ It ~~To phrase it another way, a unit must have the power to~~ force ~~turn a~~ cash to flow ~~surplus in~~ its favor ~~in any period~~ if ~~for its liabilities~~ are ~~to be widely acceptable as a liquid or a monetary asset.~~ This principal holds for every debtor in short term be the debtor a bank, a firm, or a country that is acting as the world's banker. As long as the creditors are confident that the "bank" can force a net flow of cash in its favor ~~larger than the cash required by its liabilities,~~ then its liabilities will be held as liquid assets. Once ~~the~~ creditors no longer believe this to be true, they ~~the creditors~~ will no longer willingly hold the unit's liabilities. In these cases a cash drain will be set off that will test the unit's ability to force a cash flow in its favor.

Ultimately a banks power to make its liabilities accepted rests upon its ability to cut off its lending. This will force a flow of cash in its favor as the loans it has on its books become ~~reach their~~ due ~~date~~. However cutting off lending is a drastic step. It is in effect a liquidation of the going business of the bank. Furthermore ~~and~~ it adversely affects the prospects of those businesses which normally borrowed from the banks. Therefore a bank needs some way of "forcing" a cash flow in its favor without affecting its basic lending posture ~~position~~. The instruments used for this activity are the position making instruments. A well functioning bank ~~Banks will so~~ arranges its ~~their~~ asset structure so that it ~~they~~ always has ~~have~~ assets which can be used to force cash to flow towards it without forcing a halt to ~~liquidation of its central business;~~ the provision of ~~providing~~ short term financing to business.

At the end of World War II the commercial banks were replete with government securities. The government security market was the primary position making market and the Treasury Bill was the primary position making instrument~~s~~. Banks which had excess cash would ~~use this cash to~~ buy Treasury Bills and banks which had cash ~~deficiencies~~ (reserve deposit) deficiencies would sell Treasury Bills. These sales and purchases would go through ~~dealers~~ either independent dealers or dealer departments in large banks.

The government security market is a dealer market, unlike the stock market which is a brokers market. In a dealer market bonds are actually bought by the marketing organization and then sold out of its position: the dealer owns that ~~what~~ in which he trades, ~~in~~ if only for a brief interval. In a brokers market, ~~the~~ marketing organizations bring~~s~~ ~~the~~ buyers and sellers together, but they never ~~actually~~ own~~s~~ the instruments ~~under consideration.~~ being traded. ~~In a dealer market,~~ ~~the~~ A dealer has an inventory and needs finance his inventory. In the Treasury Bill market a dealer might buy and sell a very large amount of Bills during a business day, and may be left with a sizeable inventory to carry over to the next day. ~~[illegible]~~ The dealer positions need to be financed. "~~dealer~~" ~~Once again a problem arises as to how to finance this positions.~~ The ~~obvious way is to~~ leads to borrowing from banks ~~with excess cash~~ and ~~from~~ non bank organizations with excess cash.

~~Thus in the market which is used for position making a set of~~ Dealers who buy and sell the instrument used in position making are ~~is~~ required if a banking system is to function smoothly. The ~~for their own position is likely to arise. The~~ dealers assure that the price of the security will not fluctuate wildly ~~depending~~ in response to every minor ~~an~~ excess or ~~a~~ deficiency of supply on the market. ~~It is~~ The existence of ~~the~~ a dealer market ~~which~~ makes an instrument ~~a good~~ useful for position making~~, instrument~~.

Banks are profit seeking organizations~~. Like other firms they~~ which seek to make the largest profit ~~possible~~ consistent with their views of the risks they ~~what constitutes legitimate risks~~ wish to bear. Because some of the profitability of banker's rests upon their apparent ~~probity,~~ bankers ~~will~~ cultivate an appearance of probity, and foresightedness. Even though bankers ~~prefer to~~ finance short term, they always must maintain that they are taking a long view.

Bankers make money ~~in two ways. One is~~ by selling their services ~~as an expert~~ in making payments over distance~~s~~ and ~~over~~ time~~. The second is~~ and by earning more on assets than the cost of liabilities, labor, and other items i.e. ~~In order to be able to make money a banker must be able to~~ by making on the carry. To make on the carry the interest rate on assets must be greater than the interest rate paid on liabilities. ~~if a bank is to make money.~~

Bankers profits increase ~~therefore can make money exactly~~ as they discover ways of increasing the return on their assets, even as they operate to decrease the cost of their liabilities. ~~In order~~ To do this banks ~~will~~ innovate by introducing ~~adopting~~ new and different ways of financing business and by introducing new and different ways of raising funds. New instruments and new types of contracts regularly emerge in a profit seeking ~~dynamic, evolving , and entrepreneurial~~ banking system. That ~~One aspect of this~~ innovative ~~aspect of banking~~ leads to evolution of ~~is evident in~~ financial market relations is evident in ~~the changes that took place in the instrument used~~ in position making ~~in the post war period.~~

II. The Evolution of Bank Position Making Instrument.

The instrument used by commercial banks in position making evolved over the post war period. In the beginning the primary position making instrument was the Treasury Bill. Banks bought and sold the ~~This position making activity involved the buying and selling~~ ~~an~~ asset (Treasury Debt) in order to decrease or increase ~~a bank's~~ holdings of cash. When Treasury Bills are used in position making banks ~~one asset is~~ substituted one asset for another.

~~As was mentioned earlier~~ The buying or selling of Treasury debt ~~not only~~ by banks and ~~but also by other~~ large scale holders of cash requires ~~meant~~ that ~~there had to be~~ a set of dealers exist who buy and sell ~~bought~~ the instruments ~~from those who were needing~~ have cash ~~in order to fulfill their obligations and then~~ sold ~~sold the bills to units~~ that ~~might have surplus cash~~. Whenever dealers ~~have to~~ increase their holdings of Treasury debt ~~Bills~~ they need ~~have to acquire~~ ~~the~~ cash, which they acquire by borrowing ~~to pay for the Bills~~. Whenever the inventory of Treasury Bills in ~~the~~ dealers hands decreased, they ~~are in a position to~~ repay some of their debts. Whereas banks made their position by operating upon their assets, ~~in a dealer world the~~ dealers increase or decreased their liabilities as their inventory increased or decreased. The dealers made position by operating upon their liabilities. ~~In a world in which~~ For Treasury Bills ~~are~~ to be used for position making, the ~~bill~~ dealers need to have ~~a variety of~~ sources from which they can raise the funds ~~money~~ needed to finance their position. Commercial banks are a ~~the~~ basic source of money to government bond ~~bank~~ houses ~~is the commercial banks~~. In addition corporations and others with short term excess cash ~~will~~ lend to dealers. However from time to time the dealers may take government debt into position which they cannot finance by borrowing from their normal ~~either~~ banks or non-banks sources ~~lenders~~. For ~~the normal functioning of~~ a dealers market to function smoothly, dealers must have ~~the dealers need~~ a stand by sources of funds.

One option would be to allow bond dealers to borrow at the Federal Reserve Banks.

This option ~~was~~ has been not adopted. Instead in the 1950's and 60's one of the very large New York banks -- Manufacturers/Hanover -- refrained from lending to dealers as a normal part of its business. ~~On the other hand~~ If all other sources of financing were closed to the dealers they would be able to ~~borrow~~ from Manufacturers Hanover. It ~~was~~ understood ~~Implicit in this arrangement~~ that if Manufacturers/Hanover ran a reserve deficiency because it financed bond dealers, then Manufacturers/Hanover would have access to the discount window of the Federal Reserve.

This indirect access to the Federal Reserve by way of a bank which acted as ~~the~~ a vehicle for ~~instrument of~~ the Federal Reserve was an adequate solution to the problem of stand by position making ~~by commercial banks~~ in an environment characterized by large holdings of government bonds by banks. It obviously would not be ~~an~~ effective ~~way to make position and exercise control~~ if banks did not use Treasury debt to make position.

~~In Table A the~~ Changes in the proportion of loans and U.S. Government Securities in the portfolio of commercial banks in the post war period is traced in Table A. It is evident that after an initial rundown from a war time high, the dollar amount of government securities remained essentially constant for a long period. A closer reading of the data shows that total government bond holdings of commercial banking fell from $92.3 billions in 1945 to $65.6 billion in 1948. Holdings of governments fluctuated within a narrow range until the late 1960s when the volume began to increase again. However as is evident from Table B most of the increase in the late 1960s and after was in ~~the holdings of agency issues~~; issues which while fully guaranteed by the government are deemed a little less secure than direct obligations because to ~~date~~ their market ~~is~~ tends to be thinner.

If the volume of position making activity ~~that banks have to engage in~~ is related to banks ~~their~~ total financial assets, then the decline in the percentage of government securities to total assets ~~that occurred~~ over this period is evidence that the government security holdings were becoming less capable of handling the position making activity of the banks. In 1972 the government security holdings of commercial banking net of the holdings of U.S. agency issues was but 7.8% of total commercial banking financial assets.

Commercial banks hold ~~demand~~ deposits of the Federal government and state and local governments. The convention is that such deposits ~~have to be~~ are collateralized: i.e., the bank pledges ~~puts up~~ "collateral" ~~in order~~ to get these deposits. For each deposit the acceptable collateral consists of United States Government securities and specified state and local government securities. By the mid 1950s for ~~many of~~ the largest banks it could be said that if they had government securities on hand that were not needed for collateral, then ~~someplace a slip up~~ a mistake had occurred.

If an organization cannot make position by dealing in an asset such as a Treasury ~~Security~~ debt, then it can make position by ~~some type of~~ borrowing. The first supplement in the Post War era to the Treasury Security market as a position making market for commercial banks was the development of the Federal Funds Market. Federal Funds are deposits at the ~~various~~ Federal Reserve Banks: By the middle of the 1950s the use of Federal Funds as a position making instrument became common for the very largest banks and for a set of smaller banks which were well located to lend such funds. The Federal Funds market remains a major position making market and the Federal Funds rate — the interest rate on such deposits -- is now a key interest rate in the economy.

Bank assets have grown relative to bank holdings of ~~reserve~~ deposits at the Federal Reserve Banks and vault cash. In Table C the % of vault cash and Reserves at the Federal Reserve to total Bank financial assets is exhibited. This ratio fell from 13.6% in 1946 to 5.0% in 1973 and 3.7% in 1976 ~~in the period under examination.~~ As ~~If we assume that~~ the ~~total~~ volume of position making activity is related to the volume of financial assets, then for ~~the~~ banks to be able to function with a lower ~~the diminished~~ ratio of cash and reserves to total assets ~~it is necessary for the~~ banks need to ~~have~~ develop~~ed~~ a wide array of position making instruments with a wide array of markets. For ~~Be-cause the~~ total assets ~~of banks~~ to have increased relative to the reserve deposits and vault cash ~~of the banks~~, ~~it was necessary for~~ the commercial banks had to develop reserve economizing type of liabilities. These reserve economizing liabilities generate a flow of reserve deposits toward the particular issuing bank even as they free reserves in the ~~entire~~ banking system.

~~and~~ a favorite vehicle for the "investing" of large scale holdings of short term funds, and

One such reserve economizing deposit is the large denomination Certificate of Deposit which is, at least in principle, negotiable. The large negotiable certificate of deposit was introduced in the banking system in the early 1960's. is now a major vehicle by which ~~It became a prime way for~~ a banks ~~to~~ "buy ~~a~~ money". ~~With a large and active set of large scale suppliers of relatively short term funds, the negotiable certificate of deposit became a prime source of fund for an institution that had large scale loan demand.~~ The growth of CD's in the early 1960's enabled bank credit to expand substantially faster than the reserve base. ~~For example,~~ In the period leading up to the credit crunch of 1966, even as the reserves of member banks grew at an annual rate of 2.6%, the time deposits (which includes such negotiable C.D.'s) grew at 10.7% and total bank credit grew at 8.0%. The growth of time deposits enabled banks to get around the constraint on the growth of bank credit ~~growth~~ that the constrained growth of bank reserve would have imposed.

Another technique ~~that is~~ now used by ~~both the~~ government bank dealers and ~~the~~ commercial banks to make ~~in making~~ position is the "repurchase agreement". A "repurchase agreement" is the simultaneous sale of an asset -- say a packet of government debt -- and the entering upon a contract to ~~re~~-purchase the asset that is just being sold at a fixed date -- tomorrow, a week from today. The price of the sale and subsequent purchase of the asset is fixed in the contract; as the prices ~~set for repurchasing the instrument is~~ are set by negotiation, the return to the purchaser is really an "interest rate" on the ~~and is not necessarily the rate of interest on the item~~ sold and bought amount involved ~~back.~~

A repurchase agreement ~~executed with a depositor~~ with a bank removes ~~the~~ a deposit from the base used to determine required reserves. In addition ~~A repurchase agreement executed with a non-depositor will shift reserves to the bank. Either way it is a way to make position.~~ Repurchase agreements can be used to evade ceilings ~~set~~ on interest rates. ~~as well as for position making or reserve economizing motives~~.

Banks also borrow from ~~their~~ foreign banks ~~branches~~ ~~in order~~ to make position. The ~~In buying~~ dollars borrowed abroad (Euro-dollars) are a liability that does not absorb reserves. When an American bank ~~and then transferring~~ such dollars ~~from their foreign branch to the United States banks could affect the total amount of reserve deposits available to the banking system. Let us say a branch of an American bank~~ ~~abroad~~ borrows Euro dollars and ~~the funds are~~ transfers the funds to the home office ~~in say New York.~~ the borrowed funds ~~The eurodollars that are borrowed~~ are remitted either as a ~~either on deposit in a~~ deposits in United States bank or in ~~are paid for by~~ some other currency -- say West German marks. If the transferred funds ~~purchased eurodollars~~ are ~~in~~ deposits in some U.S. bank then the transaction ~~use of these U.S. dollar deposits to buy eurodollars~~ does not increase the reserve base but it increases bank liabilities that do not absorb reserves. ~~does lower the total dollar amount of deposits against which deposits must be kept.~~

If ~~the eurodollars are created because of a transfer of~~ German marks are transferred to the borrowing ~~purchasing~~ bank, ~~then the bank can use~~ the Marks are used to acquire reserve deposits from the Federal Reserve System. The making of position by borrowing Euro dollars will ~~in this case~~ increase the ~~total~~ reserve base ~~quite~~ independently of Federal Reserve actions. In the ~~1970 episode of~~ credit stringency of 1970, ~~those~~ banks which had connections ~~were able to use their foreign branches as a source of reserves had a way~~ were able to "evade" ~~the~~ restrictive Federal Reserve policies by using techniques that were not available to other banks.

~~As a result~~ After the 1970 affair many ~~more~~ banks opened overseas branches in order to position themselves to better withstand periods of reserve constraint.

The ultimate fallback positon making instrument for a member bank is the discounting of loans — or any other asset for that matter — at the Federal Reserve bank. This ability ~~to use loans -- or any asset for that matter --~~ to generate cash is the result of experience with financial crises. ~~in which it was felt that a~~ The Federal Reserve System was created because it was felt that a lender of last resort was necessary to abort financial crises. In the early years of the Federal Reserve System the discount window was the source of a large portion of the normal functioning reserve base of ~~the~~ member banks. However, since the depression and World War II the economy has been characterized by a large government with a large national debt. In these circumstances the normal functioning reserve base is not ~~generated by~~ the result of ~~re~~discounting but ~~rather by~~ of the ownership of government securities by the Federal Reserve. Furthermore, adjustments in the reserve base as the Federal Reserve pursues income and financial market objectives ~~is~~ are now mainly done by Federal Reserve open market purchase and sale of government securities. ~~Such open market operations means that~~ Even though the government security portfolio ~~of banks~~ is no longer the~~ir~~ prime position making instrument of banks, ~~the~~ adjustments in the ~~owned~~ reserve base ~~of the banking system by the Federal Reserve~~ are carried out by means of the Treasury security market.

Not all banks are member banks; (in 1974) some 22% of all bank assets ~~are~~ were in banks that are not members of the Federal Reserve System. These banks keep their cash reserve at other banks -- mainly at the larger banks which ~~tend to be~~ are members of the Federal Reserve System. ~~These~~ Non-member banks will borrow and lend funds on the Federal Funds market (usually but not always through the member bank at which they keep their "reserve" deposits). When non-member banks ~~They will also sell any excess of cash they have through the Federal Fund market.~~ By borrow~~ing~~ Federal Funds through ~~the good offices of~~ their member bank correspondent, ~~the non-member banks may actually cause~~ a ~~minor~~ reserve deficiency (may result) at the correspondent. However, the correspondent can borrow at the Federal Reserve if necessary to make position; thus the correspondent network provides an "indirect" access to the discount window for non-member banks.

~~Thus~~ We now have a banking system ~~in which~~ where normal functioning ~~is based~~ depends upon a wide variety of money market instruments being available for position making. The evolution of the banking system ~~over the 30 years~~ since the end of World War II has been from the simplicity of a monopoly of the Treasury Bill as the position instrument ~~making monopoly~~ to a complex situation in which a representative bank juggles its government security account, Federal Funds Position, large denomination certificates of deposit, repurchase agreement, Eurodollars borrowings (or sales), and borrowings at the Federal Reserve. The behavior of a system with this variety of ~~all of these~~ position making possibilities is ~~likely to be~~ quite different from that of a simple system in which the Treasury security market ~~virtually~~ monopolized position making activity. ~~In particular it is necessary to recognize that~~ Furthermore the evolution of the techniques available for position making ~~possibilities~~ has not ceased. ~~The periods in which~~ Whenever rapid innovations in position making techniques, in ways of buying money, and in substitutes for bank financing take place ~~are periods in which~~ the articulation between Federal Reserve policy actions and the volume of financing available is loose. ~~In particular~~ The greater the number of alternative position making techniques available for banks and other financial institutions, the slacker the reaction to Federal Reserve ease or constraint. With a slack relation, the ~~time interval~~ lag between ~~a~~ Federal Reserve restrictive actions and a response by banks and financial markets will be longer than with a tight relation. ~~Thus the quickness with which the economy responds to monetary policy actions is decreas~~ed. ~~In these circumstances~~ With a slack relation policy makers' impatience to get results will tend to make for ~~monetary policy to be characterized by~~ serious overshoots. The likelihood that inept policy action will lead the economy to the threshold of a financial crisis increases the greater the number of markets used for positon making and the greater the proportion of bank assets acquired through the various markets that can be used in position making. As a result of the ~~internal~~ evolution of the financial systems, the domain of stability of the economy will ~~is~~ decreased over ~~a run of good years~~ the post war period.

What happens to banks and the markets in which banks trade assets and acquire deposits is only one side of the financing coin. When banks sell CD's, enter into repurchase agreements with non-banks or organizations a substitution of ~~the~~ bank time deposits or promises to pay for demand deposits takes place. When banks engage in such transactions they increase the ability of the banking system to finance activity. But ~~[illegible]~~ the financing that banks provide tends to be short term. Thus these measures which allow bank financing to grow at a rapid rate leads to a ~~growth~~ rapid increase in the short term financing of non-bank activity. The rapid growth of ~~bank~~ short term financing tends to make the financial system increasingly fragile.

To be rea[illegible] with up to date data

III. Sectoral Data Over The Post War Period

The first twenty years after World War II were characterized by financial tranquility. True there were periods of bullishness and bearishness in financial markets and isolated ~~minor~~ financial market disturbances occurred, ~~from time to time~~. But all in all the life of the Federal Reserve Board of Governors was easy. The discount window, which is often the center at which financial disarray focusses, was largely unused~~ual~~.

Beginning in the mid 1960s the performance of the economy, as well as the financial structure, underwent marked changes. One striking characteristic of the change was the tendency toward much higher rates of inflation. Inflation was not a serious problem for the American Economy prior to the mid-1960's. The attached Table I, reproduced from page 22[illegible] of the ~~January~~ 1966 Economic Report of the President puts the "inflationary" bias of the American economy in perspective. In the eighteen years from 1948 through 1965 the consumer price index tended to increase about 1.5% per year; the only years in which prices rose by substantially more than 1.5% were 1950, 1951, 1956 and 1957; the price increases in 1950-51 can be imputed to the outbreak of the Korean War.

~~There was a persistence of~~ Minor inflationary tendencies as measured by price indices persisted throughout this period but, for most years, ~~the~~ inflation was so mild that ~~questions could be raised as to whether~~ the measured price increases could be interpreted as ~~indices~~ reflecting statistical and measurement problems due to the changing nature of commodities. ~~rather than a real hard thrust to prices. The issue that was raised is that~~ The post-war period was characterized by recurrent changes in commodity characteristics's. New commodities, more complex versions of old commodities, and increased sophistication in packaging characterized these years. In addition commodity prices in the post-war era began to absorb a good part of ~~the~~ entertainment costs ~~dollars~~, as television replaced the neighborhood movie house for light entertainment. ~~Quite quickly in the years after 1950 and at an accelerated pace in the 1960's prices paid for commodities began to include various types of entertainment.~~

However ~~even through there is an imperfection in feeding commodity prices~~ after allowing for ~~into the price index because of the~~ changing ~~nature of commodities and~~ what ~~prices~~ purchase, it is evident by inspection that the rate of increase of prices was greater after the mid 1960's than earlier. Furthermore, aside from 1971 and 1972 when direct controls intervened the rate of increase of prices has ~~seemed to~~ appears to accelerate throughout this period. The rate of increase in prices was greater in 1966-1969 than earlier, and aside from controls, in 1970-1974 than ~~even~~ in 1966-69. Inflation ~~has become a much~~ since 1975 has been a much more serious matter ~~in the past decade~~ than earlier.

Unemployment has also become a much more serious problem in recent years -- although the deterioration of the unemployment picture is not so clear in the data. The attached Table 2 (from the President's Economic Report of January 1976 (Table B-24, page 199) shows that the overall unemployment rate has been ~~in the targeted range of~~ 4% or less only during a relatively brief period. In the past 24 years, the trend of swings in unemployment rates seems to follow a political cycle. The Eisenhower years (1953-60) were characterized by a rising trend, the Kennedy-Johnson years (1961-68) by a falling trend, ~~and~~ the ~~1969-76~~ Nixon-Ford years (1967-76) by a rising trend in unemployment rates and the Carter years (1977 -) by a falling trend. ~~However~~ The unemployment rates of ~~1975-77~~ the recession of 1974/75 were substantially higher than any achieved during prior years.

"Why was the behavior of the economy different in ~~the~~ recent years ~~decade~~ than in the post war era ~~in~~ earlier ~~years?~~" ~~is the question we need address.~~ One aspect of how the economy ~~that~~ was different in the past decade than earlier can be traced ~~out~~ in the financial data. We will emphasize ~~the~~ financial data for three sectors ~~in what follows~~: non-financial corporations, households, and commercial banking. These three sectors are the dominant private sectors in the American economy. Inasmuch as the financial system consists of interrelated balance sheets, the trends ~~that are exhibited~~ in household or business balance sheets are not independent of the trends ~~exhibited~~ in commercial bank balance sheet.

Financial ~~decisions and the closely related~~ investment decisions are of necessity intertemporal decisions: they are undertaken "today" in the expectation of events that will take place tomorrow. Because they are intertemporal and because they deal with the vagaries of costs and outputs in the future, investment and financial decisions are of necessity based upon todays uncertain views about what the future will hold. Thus there ~~is a collective~~ are subjective elements in decisions to make provision today for production in the future and how ~~the decision to~~ want invest and the ~~decision to hold~~ ownership of capital assets are ~~to be~~ financed.

Our economy is characterized by the private ownership of ~~capital assets and the use of~~ complex, long-lived, and expensive capital assets~~, in production~~. The production and control over such capital assets needs to be financed. The instruments ~~that can be~~ used to finance ~~control over~~ capital assets ownerships depends upon the structure and history of the financial system and ~~the~~ views at the decision date about the future. Whereas technology ~~may~~ limits ~~the~~ choices on how to produce some output, ~~the~~ financial choices are not so limited. Thus swings in the acceptable financial structure do occur and such swings in what is acceptable can take place rapidly.

There is little doubt that the ~~disaster of the~~ great depression affected views as to what was desirable in liability structures. A commonly held view in the late '30s was that a bank was an institution that would lend ~~money~~ only if the borrower did not need to borrow ~~money~~. In technical jargon both borrowers and lenders were ~~very~~ risk averse. As World War II ended the prosperity that followed was first viewed as a transitory accidental affair. Thus a reluctance to debt finance characterized ~~both borrowers (potential) and lenders as~~ the early days of the post-war era ~~began.~~

~~On the other hand it was clear that~~ The balance sheets of households, business, and financial institutions had a much larger proportion of government debt and a much smaller portion of private debt than had been true in the past. Table B-62 from the 1976 Economic Report of the President (pg. 244) is instructive. At the end of World War II, in 1946, debt of the Federal Government was $229.5 billion whereas the total private debt was but $153.4 billion. The $153.4 billion of private debt in 1946 was smaller than the $161.8 billion of private debt ~~that ruled~~ in 1929. As a result of the low level of private indebtedness and the high level of federal government debt outstanding, balance sheets of the major sectors were dominated by the safe and secure financial assets issued by government.

Any number looked at in isolation tells us little about economic relations. In Table Iv-III 3, the distribution of various types of debt for 1946, five year intervals between 1950 and 1970 and 1973/74 relative to the total debt is shown. Over the entire period Federal Government Debt fell relative to total debt, even as the ratio of corporate debt to total indebtedness rose. State and local debt as a percent of total debt rose until 1960, and has roughly stabilized at about 7.4% to 8.0 % of total net debt since then. A similar picture of a sharp rise relative to a total debt in an initial post war period that runs until the early to middle 1960's is shown for individuals and non-corporate business sector and mortgages. It seems clear that the pattern of growth of non-corporate private debt relative to total debt changed in the early 1960's: a plateau of household and non-corporate business debt seemingly was reached.

In Table Iv-III-4 the ratio of debt to G.N.P. in current dollars is shown for a number of types of debt. Once again the data is shown for 1946, intervals of five years, and 1973 and 1974. After falling from its 1946 level the ratio of total indebtedness to G.N.P. stayed in a relatively narrow range (in the vicinity of 1.65 - 1.70) until the early 60's when a rising trend of debt to G.N.P. appeared. As a result of this rising trend total net Public and Private debt relative to G.N.P. stood at 1.974 in 1974.

Throughout the post-war period the ratio of Federal Government debt to gross national product has trended downwards; in 1946 Federal Government debt was 110% of G.N.P., in 1974 it was 26% of G.N.P. Corporate debt showed an ever increasing ratio to G.N.P. over this period, rising from 44.6% of G.N.P. in 1946 to 66.0% in 1965. Between 1965 and 1970 the ratio of corporate debt to G.N.P. rose to 81.2% and has continued to increase rapidly so that by 1974 the ratio was 89.1. State and local government debt and the debt of individual's and non corporate business both showed a rising trend in the period from the end of the war until 1965 and since about 1965 debt/GNP ratios of these sectors have remained in a narrow ~~limits.~~ range

The tapering off of the increase of state and local indebtedness and of household indebtedness even as the decrease in the ratio of Federal debt and the increase in the ratio of corporate debt continued seemed to coincide with the increased instability of financial markets. If we think in terms of a maximum debt carrying capacity of various sectors and a need for debt to grow relative to income during an expansion then the piercing of such a ceiling will set off reactions that will tend to decrease the ratio of debt to income. The instability that we have experienced may be due to the existence of a ~~flexible~~ ceiling to the debt ~~that~~ sectors can carry combined with the need to debt finance if an ~~if an investment~~ expansion is to be "vigorous" ~~dependent capitalist economy is to achieve a reasonable approximation to full employment~~.

It is evident from the data on sectoral balance sheets and balance sheet-income relations that significant changes in financial relations took place in the middle 1960's. ~~These changes can be traced in charts for the various sectors; charts that present only a fraction of the total data available for financial interrelations. What we are tracing in these charts are various measures of the~~ financial strength or robustness such robustness depends upon if ~~a unit centers around~~ the margins of safety that ~~it~~ a borrowing unit provides ~~to its lenders~~. Keynes identified our economy as being characterized by a system of borrowing and lending based upon margins of safety. The margins of safety can be identified by the payment commitments in liabilities relative to cash receipts, the net worth or equity relative to indebtedness (the "margin" of stock market purchases), and the ratio of liabilities to cash and liquid assets, i.e. the ratio of payment commitments to assets that are superfluous to operations. The size of the margins of safety determines where the unit will lie on a robustness/fragility scale.

~~The opposite of strength or robustness is weakness or fragility.~~ I rather ~~like~~ The robustness/fragility of a financial structure reflects ~~language for it, connotes~~ the ability of a financial situation to absorb shortfalls of cash receipts without triggering a debt repudiation ~~a shock, or the likelihood that a shock will rupture an existing situation.~~

We will discuss ~~There are~~ four charts ~~that~~ deal with the financial picture for non-financial corporations, ~~the ordinary business firms~~, two ~~the~~ ~~charts~~ that deal with households, and two ~~charts~~ that deal with commercial banks ~~that we will discuss.~~

The first chart shows the ratio of corporate investment in fixed plant and equipment to internal funds in the years since 1950. Whereas in the first fifteen years ~~charted~~ this measure fluctuated around 1, so that corporate surpluses in recession years offset deficits in prosperous years, in the past decade this measure has always exceeded 1. In the years 1950-1965 this ratio trended downward, ~~but~~ since 1965 the corporate sector has been continually in deficit and ~~in the years 1965-74~~ there has been a strong upward trend in ~~these~~ deficits. In the past decade a growing portion of fixed investment has been externally financed. This indicates that, as the desire by corporations to invest increased, because the economy did well and because incentives to investment -- such as the investment tax credit and accelerated depreciation -- were intruded into the tax system, our sophisticated financial system accommodated the demand for finance.

The data in Chart 1 indicates that the corporate sector was increasingly becoming an internally financed sector as far as fixed investment is concerned in the years leading up to 1965. However this tendency was sharply broken in the years since the mid 1960's. If nothing else Chart 1 indicates the futility of that type of theorizing about the economy which transforms transitory statistical observations into universal principles without any examinations of the behavioral phenomena which generates the numbers that are observed.

Chart 2 shows the ratio of liabilities to gross internal funds~~. This chart~~ which is an indicator, albeit crude, of the cash payment commitments of corporations relative to a measure of the validating cash flows. The indicator as presented is very conservative, since it does not allow for the increased proportion of short-term debt in liability structures and for the rise in interest rates. ~~Even so~~, ~~t~~The ratio showed no discernible trend until the middle of the 1960s~~.~~ ~~I~~in the ~~past decade~~ years since 1965 this ratio has shown a strong upward trend. It is obvious that the cash flows from operations of corporations now provide a substantially smaller cover to debt than was true a decade ago. If allowance is made for interest rate change, the change would be much greater. For example interest rates on Baa bonds were 3.24% in 1950, 3.54% in 1955, 5.19% in 1960, 4.87% in 1965, 9.11% in 1970 and 10.39% in 1975. In the 10 years after 1955 the interest rate on long term debt increased by about 50%, in the ten years after 1965 interest rates more than doubled. If corporate liabilities were adjusted for ~~interest~~ changes in ~~the post war period~~ interest rates then the downward trend evident in the chart for the first fifteen years might be wiped out and the upward thrust after 1965 would be even greater than is indicated by the chart for unadjusted data.

Chart 3 indicates the cash assets relative to liabilities that corporations have in their balance sheets: other liquid asset indicators such as the ratio of liabilities to no-default assets show the same trends. The ratio of liabilities to demand deposits has trended upward throughout this period; however, as is indicated by the vertical line, the rate of growth increased in the late fifties and perhaps again around 1970.

In Chart 4 a measure of the liability structure of corporations is exhibited. The ratio of open market paper plus borrowings from finance companies to total liabilities indicates the recourse to exotic financing by corporations. These are a minor portion of total corporate liabilities; however, it is clear that they now provide substantially more funds than twenty years ago. The dependence on exotic finance apparently has increased in two steps -- the first around 1960 and the second around 1969-70. The increase in the dependence upon "exotic" financing techniques after 1969 may well reflect a view that the way in which the Federal Reserve handled the financial crunch of 1969-70 meant that such liabilities of corporations were now safer than in earlier periods; the Federal Reserve in 1969-70 extended its protection to these markets.

"exploded" between 1965 and 1970. Throughout the 1970's mortgages were being written which required much greater payments per dollar of liabilities than hitherto.

Year	Yield%
1950	4.17
1955	4.64
1960	6.18
1965	5.46
1970	9.05
1974	9.47

In Charts 7 through 10, some financial relations for commercial banking are exhibited. In Chart 7, the ratio of financial net worth to total liabilities is shown. Between 1950 and 1960 this ratio trended upward from the neighborhood of .074 to .086; in the years since 1960 it has fallen to .056. The equity protection level as conventionally measured in commercial banking, where assets are not ~~revalued~~ written down to allow for interest rate increases, has fallen sharply. We know that the aggregate ratios exhibited here would be cut sharply if such revaluations were made. Furthermore, the ratios shown are large compared with similar ratios for the giant bank holding companies. The capital adequacy of banks, either as measured here or revised to allow for asset revaluations, has fallen sharply over the past decade and a half.

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In Chart 8, the ratio of total liabilities to protected assets (i.e., assets whose market value will be protected by Federal Reserve intervention) is shown; this ratio increased slowly from about 3.0 in 1950 to 5.2 in 1963; since 1963 the rate of increase has accelerated, so that by 1974 this ratio was around 11.9. In Chart 9, the ratio of demand deposits to total liabilities is given; this ratio has trended downward throughout the entire period; however, once again a break occurred in the neighborhood of 1960 which increased the rate of decline. We can explain this change in trend by the introduction of the negotiable certificates of deposit (CDs). Chart 10 shows the ratio of bought funds (nondeposit funds plus large negotiable CDs) to total liabilities. This ratio was in the neighborhood of .05 until 1962 or so, at which time it exploded upward, reaching a high of .18 in 1969 and standing at .16 in 1974.

The above is but a sampling of the data ~~available~~ on financial changes over the past decades, which indicate that the speculative element in finance has increased. As a result of these and similar changes for other sectors of the economy, the financial system is much less robust now than hitherto.

In the charts, a vertical dashed line is drawn at those dates at which a change in trend or a change in the mode of behavior took place. It is my hypothesis that these changes indicate that in the early 1960s the mode of behavior of the financial system underwent significant changes and that these changes tended to accelerate the trend toward fragile finance. The economy since the early 1960s is different than it was in the first fifteen years of the postwar era.

In addition to the changing financial structure of major sectors, suggested by the indicators discussed above, institutional changes, which increase the layering of financial claims, also contribute to the changes in the financial structure. There is no need to document with data what is well known. Over the past fifteen years, fringe banking institutions and practices--such as business lending by finance companies and the issue of commercial paper by corporations, REITs, and nonmember commercial banks--have grown relative to other elements in the financial system.

With the growth of fringe banking institutions, member banks--and especially the large money market banks--have become de facto lenders of last resort to these institutions through relations that are formalized by lines of credit. We now have a system in which the Federal Reserve is the lender of last resort to giant commercial banks, and giant commercial banks are the lenders of last resort to fringe banking institutions. As was evident in the REIT crisis of 1974, the hierarchical model of the National Banking System (1863-1913) has been brought into being again.

Hierarchical banking relations can be a source of weakness for the financial system. Fringe banking institutions draw upon their lines of credit at the core banks when alternative financing channels become either expensive or unusable due to market disruption, such as occurs when doubt arises about the validity of payment commitments by fringe institutions because of some perceived weakness in their asset structure. For example, the underlying weakness in speculative construction is a factor that made REIT commercial paper unmarketable. When banks act as residual lenders they typically are refinancing institutions which the market views as weak. Inasmuch as banks hold assets that are similar to those in the portfolios of fringe institutions, some assets held by these backup banks have also weakened when the weakness of the portfolios of the fringe institutions became apparent in the market. Already weakened portfolios of some banks are made even weaker when these banks act as a lender of last resort to fringe institutions ~~to use their lines of credit~~. Furthermore, if we run through a succession of such episodes in which giant money market banks bail out fringe banks, a cumulative weakening of the giant banks is likely to occur. Financial fragility is likely to be both a progressive and a contagious disease, and our hierarchical financial structure facilitates the spread of the disease.

Thus the potential for seriously disruptive domino effects is implicity in the hierarchical financial pattern that has developed. The introduction of additional layering in finance, together with the invention of new instruments designed to create credit by tapping pools of liquidity, is evidence, beyond that revealed by the data on financial stocks and flows, of the increasing fragility of the financial system.

The story that was sketched in the charts reflects the way in which financial resources are mobilized to finance investments during vigorous expansions. The financial changes that take place in the balance sheets of the various sectors reflect the financing of expenditures by the activation of previously idle pools of liquidity, pools which tend to make the financial system robust. However, underlying the greater reliance upon debt financing of investment and positions in the stock of capital assets is a belief that the debt-validating income of business, households, and state and local government will grow, so that the cash flows required to fulfill financial obligations will be forthcoming. Once expectations of unbounded growth are abandoned, an inherited debt structure can become untenable. When the financial structure comes close to and remains near the border of the untenable the capital accumulation and financial history of the economy becomes a thing of fits and starts; of crises and rescues. Such historically exciting events became prominent in the mid 1960's and has characterized the past decade.

Chapter IV-IV The Credit Crunch of 1966

The credit crunch of 1966 was the first financial difficulty since the 1930's that involved a run on a financial instrument or ~~set of~~ institutions and which induced the ~~required special~~ Federal Reserve to act as a lender of last resort ~~action. Previously in the post-war~~ Earlier post war financial ~~era~~ trauma's had occurred due to specific failures or frauds. In the Billy Sol Estes affair and the salad oil scandal of 1963 Federal Reserve ~~temporary~~ intervention ~~by the Federal Reserve may have been necessary~~ was necessary to offset a specific incident~~, but~~. In 1966 ~~the intervention by~~ the Federal Reserve was a true lender-of-last-resort ~~intervention required~~ aiming to ~~abort~~ control a systemic shortcoming; a market ~~rather than an individual unit~~ was "at hazard". The credit crunch of 1966 was a normal ~~outgrowth~~ result of the ~~uninterrupted~~ cyclical expansion of the economy since ~~early~~ 1961 in the context of ~~a~~ the longer post-war period ~~in which there was no~~ without a significant recession. ~~The events of 1966 indicate that under capitalism a protracted period of good times leads to first an investment boom and then a financial crisis.~~

A crunch ~~or financial crisis~~ can occur only when ~~the~~ "margins" of safety in portfolios have been eroded. ~~As a result of~~ The financial legacy of a great war ~~that came~~ immediately after a great depression meant that the initial conditions after WII ~~the first twenty years after World War II~~ were characterized ~~by~~ robust ~~ness in~~ financial markets. ~~In this period most banks had significant amounts of~~ The Federal government debt in ~~their~~ bank portfolios ~~beyond~~ far exceeded what was needed to satisfy the requirements of collateral for various types of government deposits ~~that require collateral~~. In these circumstances if a bank had a transitory reserve excess or deficiency it bought or sold government securities; it substituted one asset for another.

In the middle 1950s the ~~very~~ largest banks ~~in New York, Chicago, and other major money centers~~ ran out of excess Treasury debt and began to make position by borrowing ~~borrow~~ funds from banks with excess ~~deposits at the Federal Reserve Banks.~~ reserves. This Federal Funds market ~~, in which banks trade "reserve" funds,~~ had been active prior to 1929 but had disappeared during the depression, ~~the years of World War II, and the early post-~~

~~war years~~.

A bank, ~~or for that matter any financial or non-financial institution,~~ ~~supports or~~ finances its asset holdings by means of its liabilities. In the aftermath of World War II, the borrowed liabilities of commercial banks consisted of demand and time deposits ~~(along with the owner equity investment)~~ and the assets were ~~heavily dominated by~~ largely Treasury debt. ~~As has been shown~~ As the postwar era progressed the ratio of business borrowing to Treasury debt in bank portfolio's increased. ~~business loans increased by means of substitution in portfolios as well as by increasing the total of assets and liabilities.~~ An increase in business loans by banks ~~tends to~~ increases the demand for assets and investments by the borrowers. Thus the portfolio transformations of banks were associated with ~~rising prices and~~ increased business activity.

As long as banks had an excess of Treasury securities over what was needed as collateral for deposits, adjustments in bank needs for cash, what bankers call position making, were made by dealing - buying and selling - Treasury securities. These position making activities were operations on the asset side. A bank's major managerial problem in the first part of the post-war period centered around managing its assets, its loans and investments.

As the giant banks ran out of their excess holdings + ~~above collateral requirements~~ of TreasuryBills in the middle 1960's, they began to trade in deposits at the Federal Reserve banks; they began to borrow and lend Federal Funds. Such borrowing and lending supplemented and replaced dealing in Treasury Bills as the position making activity of banks. The use of Federal Funds to make position meant that the borrowing banks now increased their liabilities when they made up a cash deficiency.

The use of Federal Funds to make position was but the first step in the transformation of banking into a system in which operating upon the liability side became the dominant position making technique. In 1960, with Chase National Bank taking the initiative, banks introduced negotiable (saleable) Certificates of Deposits. This is a short term debt instrument of banks which they could actively market and which the buyer could, if need be, sell: The ~~lender to the bank~~ depositor was no longer required to hold a time certificate of deposit to maturity. The active pursuit of funds through ~~the issuance of~~ these certificates of deposit became the preferred way of meeting the cash needs of banks. During the 1960's ~~the rapid growth of~~ this liability rapid growth enabled banks to increase their lending at a faster rate than ~~the growth in~~ their reserve base. Although in terms of the growth rate of the reserve base and the money supply (demand deposits and currency) the Federal Reserve was pursuing a rather moderate path in the 1960's, bank lending, which was growing at a more rapid rate, was fueling an inflationary boom.

During the middle 1960's ~~there was~~ the Federal Reserve set a pattern of ceiling rates on various types of deposits. Furthermore there was a pattern of saving deposit interest rates in which eastern commercial and mutual savings banks paid lower interest rates than west coast savings institutions. As the expansion of the 1960's progressed spending by non-financial corporations on physical assets increased rapidly and outpaced the growth of corporate internal sources of funds. As a result the net external funds taken by corporations increased from $1.4 billions in 1964 to $6.6 billions in 65 to $15.2 billions in 66; in 1966 external funds were 20.6 percent of total corpora investment funds. ~~As a result of these developments~~ The demand for funds from banking institutions outpaced the supply of funds, even though the Federal Reserve was feeding reserves into the banking system at a significant rate. Furthermore the ~~institutional~~ changes in banking practices allowed bank loans to increase at a more rapid rate than bank reserves, ~~and~~ short term financing outside of normal banking channels also increased. As a result of demand outpacing supply, interest rates rose. Furthermore the increase in corporate investment ~~demand~~, especially

~~the~~ externally financed investment, meant that prices rose.

The Federal Reserve loves to fight inflation, which is rather surprising because they do it so poorly. As is shown in Table 2, in the midst of the 1966 investment boom the Federal Reserve progressively slowed down the rate of growth of the reserve base from 6.8% in Dec. 65/April 66 to 2.6% April 66/July 66 and -4.3% July 66/Dec. 66. The funds available for banks to use in fulfilling their interbank payments and to make positions decreased.

An investment boom once under way cannot be turned off easily, for the projects in process must be financed as they progress. A rise in interest rates while an Alaska pipeline, a nuclear power plant, or a resort condominium is being built will not shut off the need for largely short term funds to finance the bits and pieces of the project in various states of production. An attempt by the Federal Reserve to slow down an investment boom will always be met by a sharp rise in interest rates, for the financing needs of investments in the pipe line will continue to increase as work proceeds. Rising interest rates can choke

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off the demand for financing of investment only as it affects new starts or the pace at which work proceeds on projects already under way.

The decrease in the reserve base ~~instituted by the Federal Reserve in the second half of 1966~~ and the investment boom combined to lead to a sharp rise in the demand by banks for money market funds: ~~money market interest rates, and the bank prime rate. As a result of the rise in these rates the institutions that are financing investment in progress will raise the rates they pay for funds.~~ The interest rates on ~~various~~ bank certificates of deposit and money market instruments rise. Even though the Federal Reserve raised the interest rates banks were ~~able~~ allowed to pay, ~~on certificates of deposits rates fell below~~ the market rates on commercial paper and Treasury debt rose above the rates banks were permitted to pay. As a result holders of large denomination certificates of deposit ~~were tempted to~~ allowed them to run out. ~~the total of bank liabilities were under pressure.~~

Toward the end of June 1966 the price of large C.D.'s carrying the ceiling rate of interest went to a discount. This effectively stopped the issuance of such C.D.'s. Beginning in August the amount outstanding fell rapidly. This fall ~~in the amoung of C.D.'s outstanding~~ constituted a run on the large commercial the decline between July and December of 1966 in the reserve base, and the loan commitments made each bank individually seek more funds.

~~Two~~ steps that banks took to acquire reserves spread the dislocation from the commercial banks to other parts of the financial system. Some New York City banks - with Franklin National in the lead - ~~began to~~ offered negotiable certificates of deposits in smaller denominations, spreading the benefits of high interest rates to the holder of smaller amounts of funds. ~~In particular~~ These "retail" certificates of deposit were at a higher yield than savings institutions were able to pay, particularly the Mutual Savings Banks in New York City with their portfolios of low interest mortgages. ~~Furthermore~~ These high interest rates induced a "repatriation" of funds to the east from the West Coast~~, largely California Savings and Loan associations~~. Thus the run spread from the banks which issued large denomination certificates of deposit to the savings institutions in California.

The alternative to the substitution of another liability for ~~the~~ a liability that is running off is the sale of assets. In 1966 as the run on certificates of deposit developed, the banks had few Treasury instruments to sell in order to make position. The way around this dilemma was to try and sell other securities. Large money market banks began to sell off tax exempt municipal (state and local government) securities.

Commercial banks normally take about one-third of the new issues of municipals. As the crunch developed commercial banks withdrew from bidding on new issues. By the end of August, as a result of the combination of commercial banks withdrawing from the new issues market and the attempt of banks to make position by selling from their holdings of municipals, the market for municipals was 'disorganized', to say the least. The yield on high grade municipals - which are tax exempt - reached 5 percent - and even at these rates the market was thin.

Throughout this period the Federal Reserve, while maintaining a nominal rediscount rate of 4 1/2 percent, allowed but a slight increase - some $300 million during the first half of '66 - in borrowings at the discount window. The window was so tightly administered during July and August, ~~when market rates increased rapidly~~, that ~~on the average~~, member bank borrowings at the Federal Reserve did not increase. The money-market banks believed that the discount window was effectively closed to them.

By the end of August, the disorganization in the municipals market, rumours about the solvency and liquidity of savings institutions, and the frantic position-making efforts by money-market banks generated what can be characterized as a controlled panic. The situation clearly called for Federal Reserve action. A money market panic is ephemeral, compounded out of a combination of real liquidity stringency and a rapidly increasing precautionary demand designed t to protect against some awesome, unknown contingencies. As was true for some of the money panics of the 19th century, the air of crisis evaporated when the authorities sent a letter.

On September 1, 1966, the President of each of the twelve District Reserve Banks sent an identical letter to every member bank in his district which stated that accommodations were available at the discount window to banks whose policies corresponded to Federal Reserve objectives. In particular accommodations were available to finance current holdings of municipal securities for those banks which showed evidence that they were constraining the expansion of their business loans. In addition, the letter stated that they recognized, '... that banks adjusting their position through loan curtailment may need a longer period of discount accommodation than would be required for the disposition of securities.' The import of the letter is that the Federal Reserve acted in defence of the municipal security market, and by allowing municipals to be used at the discount window effectively set a floor to their price. As the money-market banks had been actively trying to restrain the expansion of their business loans even before ceiling rate Certificates of Deposit went to a discount, each bank, in its own mind, believed it was eligible for such accommodations. The discount window, previously assumed closed, was now provisionally open.

The Federal Reserve's letter of September 1, 1966 was a "lender of last resort act"; it recognized that disequilibrating factors were dominating financial markets and it provided access to Federal Reserve borrowing to refinance the positions that were being exposed by the run on bank Certificates of Deposit.

The opening of the discount window worked. The pressure on the Certificate of Deposit market abated. The Congress quickly passed a law allowing the Federal Reserve (2) ~~to set different ceilings on certificates of deposit according to the size of the certificate and~~ the Federal Deposit Insurance Corporation and the Federal Home Loan Bank Board ~~were given the authority~~ to set differential ceiling~~s~~ on ~~and differential~~ interest rates according to size and terms of deposits for institutions under their jurisdiction. ~~The pattern which rules to this day in which retail (under $100,000) Certificates of Deposit carry lower rates than wholesale certificates was established.~~ The housing market financing institutions were in part insulated ~~from money market pressures~~, although this insulation did not prevent mortgage interest rates from rising to the 9% level in the decade following 1966.

As a result of the crunch gross private domestic investment decreased at an annual rate of 26 percent between the 4th quarter of 1966 and the 2nd quarter of 1967. However this decline in private investment did not lead to a fall in aggregate income, because spending on the war in Vietnam increased just as civilian investment expenditures tapered off. The crunch ~~was a way in which resources were~~ made resources available for the war; the slump in private investment ~~slump~~ was in lieu of a tax increase to finance the war.

The crunch of 1966 was the first serious financial disruption of the postwar era. It was not taken as a signal for a deep analysis and reform of the financial system. The difficulties were papered over with the cosmetic changes that allowed interest rate ceilings to vary with the size of the deposit. An inadvertent but apt use of fiscal policy prevented a recession.

The crunch of 1966 did seem to assure the money market that banks which used ~~a~~ money market instruments ~~such as negotiable certificates of deposit that they~~ would be protected against a run by the Federal Reserve ~~behavior~~. The action of the Federal Reserve in 1966 not only legitimized the use of negotiable certificates of deposit by banks but it opened the door to liability management banking. ~~If the~~ With ~~Federal Reserve~~ protection ~~by way of~~ from the discount window, ~~is there — then~~ banks can rely upon liability juggling to make position.

Chapter IV, Part V: The Liquidity Squeeze of 1970

The second post-war financial disturbance that required ~~Federal Reserve~~ lender of last resort intervention occurred in 1970. This time the market in distress was the commercial paper market, ~~and the~~ Federal Reserve's intervention took the form of ~~both~~ opening the discount window so banks could acquire funds to refinance ~~from the Federal Reserve in order that~~ a run on commercial paper ~~could be refinanced~~ and encouraging banks to form syndicates to do such refinancing.

Whereas in the early 1960's ~~the growth of~~ bank negotiable certificates of deposit was the "new" ~~wonder~~ instrument that financed expansion, ~~the growth of~~ commercial paper was the "new" ~~wonder~~ instrument of the late 1960's. Commercial ~~pape~~ paper is the unsecured note of a business corporation that is issued for a set period - say 90 or 180 days~~, - and is sold to some holder~~. ~~The~~ Large finance companies - such as General Motors Acceptance Corporation - ~~sell~~ place their own commercial paper. Other companies use dealers to ~~sell~~ place their paper.

At the beginning of 1966 about $10 billions of commercial paper was outstanding. By mid-year 1968 the figure had doubled to $20 billions and by the end of May 1970 some $32 billions of such paper was outstanding. This paper proved to be the vulnerable point in ~~the emergence of~~ the crisis.

In 1969, When ~~the~~ Nixon ~~administration~~ took office ~~in early 1969~~ the unemployment rate was ~~about~~ 3.5% and the consumer price index had risen ~~increased~~ by ~~some~~ 4.2% in 1968. Corporation investment ~~purchases of physical assets~~ ~~had~~ increased by 5.0% in 1968 over 1967 and was ~~were~~ to ~~in the midst of~~ increase ~~increasing~~ by 11.6% in 1969 over 1968. ~~At the same time~~ The internal funds generated by ~~the~~ corporations ~~sector~~ remained essentially static in the neighborhood of $60 billions. As a result the ~~amount of~~ net external financing of investment rose from $9.9 billions in 1967 to $23.0 billions in 1969; between 1967 and 1969 the percentage of corporate investment ~~by corporations in physical assets~~ that was financed by external funds rose from 13.9% to 27.5%.

In the midst of this explosion in the ~~dependence of investment on~~ external financing of investment the Federal Reserve ~~and the new administration~~ undertook to fight inflation by monetary policy. ~~As a result~~ The rate of growth of bank credit was cut from about 10% in 1968 to 5% in the first half ~~of 69~~ and ~~to~~ 3% in the 2nd half of 1969 and the first part of 1970. As a ~~This slow-down led to a rise in~~ result the sensitive Federal Funds ~~interest~~ rate rose from 6% at the end of '68 to 9% by midyear 1969. It stayed in the vicinity of 9% into early 1970, when it began to ~~track down~~ decrease. Other interest rates also rose; the conventional mortgage rate hit 9% early in 1970 and stayed above 9% throughout the year. High interest rates led to a stock market decline.

In this tight money situation ~~a situation characterized by high interest rates and the stock market decline,~~ the Penn-Central Railroad filed for bankruptcy ~~and de-~~ defaulted on some $82 millions in outstanding commercial paper. This default led to a "run" on the commercial paper market; some $3 billions – about 10% – of the outstanding commercial paper ran off in a three week period. The Federal Reserve Bank of New York and the Federal Reserve Board of Governors intervened by abetting the formation of ~~aided the creation of~~ a syndicate of ~~large~~ commercial banks which refinanced Chrysler's a ~~major automobile~~ finance company ~~(Chrysler)~~. ~~Over the~~ During ~~month~~ of July member bank borrowings at the Federal Reserve discount window rose by $1/2 billion and ~~In addition~~ the Federal Reserve pumped reserve funds into the banking system by means of open market operations.

By ~~its~~ these actions ~~in 1970~~ the Federal Reserve ~~System extended its implicit~~ protect~~ion to~~ed the commercial paper market. In the years ~~after the~~ that followed ~~liquidity squeeze of 1970 it became~~ ~~an~~ the institutionalized standard procedure was a for ~~the~~ borrowers on commercial paper to have ~~sufficient outstanding~~ lines of credit at banks sufficient to cover ~~repay~~ ~~all of~~ its outstanding commercial paper. Commercial paper ~~henceforth was~~ became "bank credit" once removed. ~~The situation developed in which~~ The Federal Reserve was the lender of last resort to ~~the~~ commercial banks and ~~the~~ commercial banks were the residual or fall back lender to the commercial paper market.

With ~~Once~~ this formalization, ~~took place commercial banks had both overt and covert liabilities;~~ outstanding commercial paper became ~~was~~ a covert liability of commercial banks. ~~The economy~~ In effect ~~had~~ an increase in bank liabilities took place, but these additional liabilities never appeared in ~~the~~ bank credit data. ~~The use of lines of credit as a substitute of a bank credit and the lack of control of such covert bank liabilities meant that~~ By its 1970 actions ~~after~~ the Federal Reserve legitimized the use of bank lines of credit as a back up to commercial paper. This introduced ~~there was~~ an additional ~~uncontrolled~~, market determined component to the effective money supply that was not constrained by the traditional Federal Reserve powers. ~~to more that had earlier existed.~~

~~Aside from the institutionalization of the condition that unused bank lines of credit be open to cover outstanding commercial paper,~~ No reforms of banking ~~were~~ was undertaken in the aftermath of the squeeze of 1969/70 even ~~This~~

~~was so even~~ though 1969/70 was a bona-fide recession. ~~At~~ A year end 1970 unemployment was 6% - and the G.N.P. deflator rose by 6% in the fourth quarter of 1970. This 6% inflation - 6% unemployment rate marked the emergence of "stagflation" - high unemployment associated with rising prices - as a characteristic of the economy. ~~Perhaps even more than in 1966,~~ The evidence from 1969/70 ~~indicates~~ showed that ~~the patterns that characterized the~~ behavior of the economy ~~in the 1950's and early 1960's~~ no longer ~~characterized our economy~~ conformed to the pattern observed in the 1950's and early 60's.

With the recession ~~of 1970/71~~ the Federal Government budget position went from a surplus of \$8.5 billions in 1969, to deficits of \$11.9 billions in 1970 and \$21.9 billions in 1971. These deficits not only sustained income and employment but also led to increase~~d~~ in the cash flows ~~of~~ to the corporate sector. Thus in the year 1971 and 1972 the cash flows of the corporate sector increased to \$69.9 billions and \$77.5 billions from the approximately \$60 billion plateau that characterized 1968-70. Paradoxically recessions seem to be good for corporate gross profits [illegible]

The 1969-70 crisis in the commercial paper market ~~had well nigh forced~~ led to a serious recession, ~~on the economy.~~ The combination of ~~a~~ prompt intervention by the Federal Reserve ~~acting~~ as a lender-of-last-resort and the emergence of a massive government deficit in 1970, 1971, and 1972 prevented the recession from proceeding further~~, than it~~. ~~Furthermore~~, The rapid increase in corporate cash flows in the years after the near-crisis set the financial stage for another burst of external finance in the years that followed.

~~It is evident that In 1969/70~~ The policy of using monetary constraint in 1969/70 to control inflation did not work very well. ~~In the minds of~~ The policy makers had assumed that constraint upon the rate of growth of the money supply led to decreases in ~~spending by~~ business and household spending and thus removed some of the excess aggregate demand that led to inflation. However, in the world in which we live, ~~the channel for~~ monetary policy ~~did~~ does not ~~proceed~~ affect directly ~~to~~ demand. Monetary policy first affects financing and refinancing conditions and the prices of instruments traded in financial markets. ~~In a world in which borrowing and lending takes place~~ Monetary constraint ~~will~~ often leads to financial market disruption even as income, employment, and prices continue to increase. ~~In a world with sophisticated financial practices~~ The policy of using monetary constraint to control inflation ~~obviously~~ did not work in 1969/70 because ~~such a~~ this policy ~~leads~~ led to a "clear and present" danger of a financial crisis ~~even~~ before it ~~seriously affects~~ lowered demand. ~~Thus~~ The economy seems to be in a position where that which is prescribed to halt inflation leads to a threat of a deep depression whereas that which the Federal Reserve and the government do to abort a deep depression ~~together with the cash flow effects of big government during a recession~~ sets the financial and demand stages for another burst of inflation.

Chapter IV, Part VI: The Financial Traumas of 74, 75 ...

In the world inhabited by establishment economists and Central Bankers nothing succeeds like failure. The failure of monetary constraint to achieve more than transitory success in halting inflation in 1966 and 1970 and the success of monetary constraint in triggering financial traumas that threatened a deep depression in these years meant that monetary constraint was sure to be the principal weapon of an anti-inflationary policy in 1973/74.

The details of these traumatic years were detailed in Chapters II and III. The familiar pattern in which the corporate purchase of physical assets and the proportion of such spending that was externally financed increased at very rapid rates was ~~evident~~ repeated. The explosive growth in external financing meant ~~that there was a great deal of~~ led to upward pressure on market interest rates. ~~In addition~~ The abrupt removal of controls in early 1973 by the victorious Nixon administration meant that inflation was an ~~added to the rising interest rates as~~ virulent a factor stripping units of their liquid asset margins of safety. ~~As is to be expected~~ The "boom" in investment was facilitated by a financial innovation in 1972 and 1973: The Real Estate Investment Trusts were the new ~~financial~~ miracle child that helped finance this boom. ~~This "institution" financed investment projects largely by short term borrowing from the open market through commercial paper and from banks.~~

As a result of the high interest rates ~~caused by the combination of~~

~~run away and inelastic demand for financing by units that were engaged in large scale investment projects and monetary constraint~~ financial institutions which depended upon refinancing their position were in great difficulties in 1973/74. In particular, in 1974 virtually all real estate investment trusts became walking bankrupts. Furthermore, ~~in~~ these years saw [illegible] of bank failures. ~~three banks in the billion dollar class and one five billion dollar bank became bankrupt.~~

The Federal Deposit Insurance Corporation was established in 1935. From that date until the 1970's the banks that failed were almost always ~~typically~~ very small banks. In 1973, 74, and 75 four banks in the billion dollar plus class failed, were "merged", or were sustained by extraordinary Federal Deposit Insurance Corporation action. In each of these cases the first "emergency" occurred when the bank was unable to refinance its position through normal market channels so ~~. This meant~~ that the discount facilities of the Federal Reserve were called upon ~~into play~~. The priority of the Federal Reserve in dealing with the problem of large banks was established in this episode and the superfluous nature of both Federal Deposit Insurance Corporation and the Comptroller of the Currency became evident. When a ~~The need of~~ large banks ~~for funds, when they are~~ is subjected to a run the need for funds is so large that only the Federal Reserve can undertake the refinancing. ~~task.~~

~~The most important thing that we have to notice about~~ The 1974/75 ~~virtual~~ debacle is that it conformed to the pattern of the 1966 and the 1969/70 episodes. In each case a run on some institutions or instrument required Federal Reserve action. In each case the Federal Reserve acting as a lender of last resort aborted what looked like the beginnings of a financial crisis, ~~and i~~ In each case the repercussions of big government backed up the Federal Reserve action by sustaining income, generating conditions conducive to profits, and feeding secure instruments into portfolios.

Chapter V, Part VII: The Lessons from the Runs

In the decade following 1965 three serious runs occurred on financial markets or banks. In ~~1966 a~~ run occurred on bank certificates of deposit, in 1970 one occurred on the commercial paper market, and in 1974/75 two runs occurred, one on the commercial paper of REIT's and the second on the overseas deposits of the Franklin National Bank. Each time a run occurred an instrument or an institution that had grown rapidly over the preceding boom was the focal point of the disturbance. Each time a run occurred the Federal Reserve intervened to facilitate the refinancing of the threatened position. Thus the Federal Reserve legitimized by its protection the new instrument or the new institution. In 1966 and 1970 minor institutional and usage reforms were ventured after the near crisis. No serious effort at reform of the overseas operations of United States banks occurred after the 1974 Franklin National fiasco. Nothing has been done since 1974 to prevent the emergence of new financial institutions, which ~~are~~ like the REIT's, ~~in that they~~ are based upon covert bank liabilities.

Every time the Federal Reserve protects a financial instrument it legitimizes the use of this instrument to finance activity. This means that not only does Federal Reserve action abort an incipient crisis but it sets the stage for the resumption of the type of financing that is a necessary but not a sufficient condition for an investment boom.

Economists are parrots who have been taught how to say "supply and demand". The Federal Reserve action in legitimizing past financing experimentation sets the stage for a resumption in the growth of the instrument which was "threatened" and for the introduction of new instruments. The big Federal Government, by sustaining aggregate demand sustains corporate profits and furthermore its deficits feeds secure assets into portfolios. These effects of big government mean that an investment boom will occur quite soon. The investment boom generates the demand for finance.

Thus what we seem to have is a system that maximizes instability even as it prevents the deep depressions that have characterized history. Instead of a financial crisis and deep depressions being separated by decades, threats of crisis and deep depression occur every few years; instead of deep depressions we now have chronic inflation. In terms of preventing deep depressions we certainly have done better than hitherto, this is very ~~but that is~~ small consolation in the increasingly unstable economy.

Chapter IV, Part VIII: Coda - and Overview of Things to Come

In our detailed examination of the events of 1974/75 and the briefer history of the evolution of financial practices and relations since the Second World War we have stated our view of what happened. We now need to try and understand why it happened. But the why question is interesting only if our explanation offers us handles that can be used to make results better than they would be in the absence of such prescribed manipulations. But the validity of proposition of the nature "if you do this, then that will follow" rests upon an understanding of how ~~the mechanisms of the real world work. How~~ in fact our economy ~~functions.~~ works.

The understanding of how an economy works is the subject of economic theory. Economic theory today is a formidable enterprise; the journals that specialize in economic theory are replete with arcane mathematics. The tests of propositions about how the economy works most often use sophisticated statistical techniques - the field of study of how one does this type of research is called econometrics. Econometrics is a technique for extracting fine inferences from fuzzy data; economic theory in its mathematical garb is an instrument for making nice distinctions and for drawing fine inferences even as obvious economic behavior is ignored.

But the phenomena we have described are neither fine nor nice; they are gross and vulgar. "Why is our economy so given to fluctuations?, Why is it now inflationary when for long periods of our history prices trended downward?, Why do we need three rescue operations by the Federal Reserve within a decade when no such operations were needed earlier in the post-war era and, Why do we now have a chronic surplus of labor?," are some of the gross questions that need answering.

In truth economic theory is too important to be left to the economists. As long as economics is a professional and academic discipline the emphasis in research will be on fine and nice details. Only if economic theory is engaged in controversy about the fundamental nature of the economy will it be concerned with the gross and vulgar questions that concern citizens.

Economic policy affects what happens. Inept policy can adversely affect the outcome. But policy is based upon a diagnosis of what is wrong, a view as to what is better, an understanding of how the economy works which defines both what is attainable and how the attainable better can be achieved. Economic theory is important exactly as it leads to policy prescriptions - even if it leads to the dismal conclusion that the best attainable is not very good.

By important measures such as unemployment rates, inflation rates, and the stability of the financial system the best that was obtained in the past is significantly better than recent experience. Something is obviously different - and our examination of the post-war period and the recent past indicates that one cause of the disappointing behavior of the economy rests in the current structure of financial relations.

Thus theory must be considered before we can get to the nitty-gritty of policy. And it appears that theory must explicitly relate financial factors to system behavior if it is to be relevant to our problems. And this theory must be so phrased and stated, its arguments must be so clear, that it is available to citizens who are not professional economists.

Therefore our path is through theory to policy now that we have the question: "Why is our economy so unstable?"

controversy about organization of the

~~Furthermore~~ the money question — the ~~issue of how~~ the monetary and financial system ~~of the economy is to be organized~~ — has been

~~was~~ a ~~leading~~ continuing issue in our political history. ~~The restructuring of~~ the

Second Bank of the United States ~~in Jackson's time~~, ~~the era of~~ "wildcat banking,

the National Banking Act of Lincoln's Administration, the ~~controversy over the~~ redemption of greenbacks

silver coinage, ~~of silver~~ the ~~culminating in the William Jennings Bryan campaigns with its~~