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An Historic and Theoretic Perspective on Credit Crunches.

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"Those who cannot remember the past are condemned to repeat it"

George Santayana

Preface

Our Conference chairman, Girol Karacaoglu, set interesting and important problems to the Conference speakers: these questions are both general and specific. One of the specific questions he put to me is:

> "In your work, you have argued that the "profit seeking activities of bankers and business men make financial instability and business cycles endogenous characteristics of market economies with modern financial systems". How does the "credit crunch" phenomena (as you understand and interpret it) fit into your framework?

I could interpret the phrasing as giving me an opening to set out my version of Monetary and Macroeconomic theory, which emphasizes the financing of activities and the way financed activity leads to the cash flows which are the incomes in the economy. This way of looking at the economy leads to a theory in which business cycles are endogenous and an explanation of business cycles that rests upon the financial instability hypothesis, i.e. that the profit seeking activities of ordinary businesses, households and financial institutions leads to an evolution of financial relations such that over time conditions conducive to deep and prolonged depressions are created. The development of

liability structures which heavily commit cash flows to liability validation is the central condition which makes deep depressions possible.

If I took the opening that our Chairman made available I could force you to sit through a biased rehash of controversies in economics of the past half century: this review of the troops would demonstrate that I was right and those who differ with, be they orthodox Keynesians, New Keynesians, traditional monetarists, rational expectations monetarists or Post Keynesians, do not understand the relevant relations that determine how our type of economy behaves. Modesty prevents me from taking open advantage of the opportunity provided by the Chairmans phrasing. I will try to stick to the simpler purpose of putting the "credit crunch" phenomena into historic/theoretic context and to draw some policy implications from the argument.

It is often taken for granted that policy refers to either Central Bank's actions that affect the quantity of "monetary assets" or "Treasury" actions that affect the governments fiscal posture. In the light of what is now going on in the States, where we are grappling with legislation that will affect the institutional structure of the financial system and will lay down guidelines that will affect how the Federal Reserve and the other monetary institutions behave, policy quite clearly includes

legislation and administrative decisions that affect the structure and functioning of financial institutions.

In order focus the argument I will assert a conclusion: A credit crunch is a stage in the process by which the potential for chaotic behavior of the economy becomes evident. The recognition that a crunch is developing may well force the Central Bank to intervene in an attempt to stop the crunch. If the Central Bank is effective, further deterioration in the financial structure and the economy does not occur, if the intervention is inept or insufficient further deterioration towards chaos - towards a debt deflation - takes place.

The above suggests that a crunch can be interpreted as the events in the world that are encompassed in the economists phrase "Liquidity preference increases."

Not all crunches are alike. A crunch which occurs in a basically robust financial structure is likely to be the result of prior monetary constraint and some form of induced disintermediation. Non performing assets are not central to such a crunch: the worse that has happened on the asset side is that the mark to market value of investments fall. Such a crunch can be contained and reversed by a change in Central Bank policy. The income and employment effects are both mild and transitory.

A crunch that occurs in a fragile financial environment, which fully developed in a prior euphoric investment and financial market boom, will be associated with a proliferation of non performing assets. Such a crunch will be associated with a slow down of investment and therefor with the cash flows (gross profits) from assets and a need to adjust balance sheets and income statements to allow for these non performing assets. The erosion of the capital of financial institutions becomes a factor in the availability of credit from bank and non bank sources.

Such a crunch leads both lenders and borrowers to acquire a fuller appreciation of the risks of debt financing. It cannot be overcome by merely easing financial market conditions. The crunch can be identified as a heightening of the risk aversion of bankers and business men.

The income and employment effects of such a crunch are likely to be serious and protracted. A full recovery may require:

1. that profit and wage flows be sustained in the face of a reduction in private investment,
2. that the prior erosion of the capital base of banks and other financial institutions be undone, and
3. that time, in an environment where profit flows are sustained, lowers the elevated risk aversion of business men

and bankers that were responses to the performance of their assets and the constraints imposed by their liabilities.

For profit flows to be sustained in the absence of vigorous private investment requires increased government deficits, where the expenditure side of the budget enhances private investment opportunities, sustained consumption levels and a strong trade balance. The rebuilding of the equity base of the banks and other financial institutions requires a prior ending of the losses on assets and a period of strong financial institution profits which rebuilds the capital of bank and other financial institutions. Such profits will also enable financial institutions to attract outside equity funds.

Alternatively, as in the great depression in the United States, a government organization can supply capital. This is being done in an imperfect way by the deposit insurance funds. This was what the government holding company, the Reconstruction Finance Corporation did during the Great Depression. As Walker Todd has put it, the RFC may be a bad idea whose time has come. I am not so sure that the RFC was such a bad idea.

It is clear that these prefatory remarks reflects a theory of how a financially complex market economy works that differs from the usual model of the economy. In this theory the evolution of the economy through time may well make the dynamics of the economy chaos generating rather

than equilibrium seeking. I will expand upon the model of the economy that now underlies my views.

The organization of what follows is

I. Introduction

II. Economic Theory and The Interpretation of Credit Crunches

III. Systemic (or deep) versus Idiosyncratic (or transitory) Crunches

IV. Policy Implications of Crunches.

I. Introduction.

"Nothing endures but change."

"One cannot step into the same river twice, for other waters are ever flowing onto you."

Heracletes:

We are in the midst of a revolution which is changing the way a vast part of the surface of the globe, what was once the Soviet domain, manages its economic affairs. It is now clear that this revolutionary shift, from a planned to a market economy, is much more complex than the mere dismantling of the Communist way of managing economic affairs would lead us to believe: it involves the difficult task of creating apt economic and financial institutions.

Even as the communist world is disintegrating politically, socially and economically all is not well in the capitalist market economies. The financial structures of various capitalist economies, advanced and retrograde, are stressed and as a result the economic system is strained.[1]

Nowhere are these stresses and strains more evident than in the United States. As I began writing this paper in the latter part of July a major insurance company was placed

1. "Stresses and strains" is a phrase used by W.C.Mitchell to describe what happens during an extended expansion of the economy.

in a conservatorship and two of what had been crown jewels of the New York financial community began to merge in a rather desperate try to once again be profitable.[2] By the time the "Ides" of August arrive and this paper is presented, I expect there will new items to illustrate the stresses under which the United States and the world's financial structure labors.

What is happening can be likened to a bug or virus that attacks financial and commercial sectors sequentially. Each attack is not in itself "life threatening", in the sense of hurtling the economy into chaos, but each attack debilitates the economy. The process does not lead to a monotonic and universal decline, so that forecasters, financial analysts and politicians of the party in power are able to see signs of recovery even as the economy wastes away. The performance reminds one of the intonations by authorities in the early 1930's which assured the public "that prosperity was just around the corner" even as the financial and economic system of the United States and the other affluent economies of the day went through one sinking spell after another.[3]

Credit crunches come in two "unappetizing" flavors. Both flavors take the form of a heightening of the

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2. A merger is not like multiplication in that adding two minuses is not a plus.

3 A depression can be viewed as a series of recessions strung together by false or incomplete recoveries: during this process various financial crises occur.

uncertainty felt by bankers and business men. The less threatening form is either a rise in lenders uncertainty that is the inadvertent consequence of monetary constraint or a rise in lenders uncertainty as the consequence of constraints introduced by the central bank designed to increase uncertainty. These crunches are the result of policy operations and can be overcome by reversing the policy actions, i.e. by easing money.4

The second form is due to the emergence through time, as a consequence of the re-evaluations of risks (uncertainties) that were induced by a long period of successful operation of the economy, of untenable liability structures of firms, households, banks and other financial institutions. These liability structures are untenable because the underlying cash flows from income generation are not large enough to fulfill the commitments on debts, even with the attenuated margins of safety required by borrowers and lenders.

Both forms of crunches indicate that all is not well with the financial structure.

The credit crunches in the era of interest rate ceilings were of the first kind: Federal Reserve monetary

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4 H.P. Minsky "The New Uses Of Monetary Policy", <u>Nebraska Journal Of Economics and Business</u>, Volume 8, Number 2, Spring 1969.
"The Crunch and Its Aftermath", <u>Banker's Magazine</u>, February - March 1968
"The Crunch of 1966 - Model for New Financial Crises, <u>Trans-Action Magazine</u>, March 1968

policy created the crunch and the crunch evaporated when the Federal Reserve assured the banks that reserve money was available to those who behaved. The current, 1990-91, credit crunch may be best interpreted as a systemic crunch: a crunch that is one phase of the interactive or feedback process that characterizes a modern, intensely financial capitalist economy which is capable of generating a debt deflation process. It is not due to any proximate Central Bank tightening. It is due to the erosion of margins of safety in financing deals over a longer period characterized by the over all success of the economy. When deals became "asset and not cash flow plays" (As the operations of Donald Trump were once described), so that the validation of the paper issued in the deal depends upon an anticipated appreciation of asset values rather expected cash flows from operations or contract fulfillments, then one can be sure that a crunch, not prosperity, lurks just around the corner.

It should be noted that in this argument the Central Bank is not an unconstrained agent: the economy's response to a Central Bank action can force the hand of the Central Bank. If the economy is viewed as being a potentially unstable system, as a Fiddler on the Roof, then, when the instability becomes manifest, the Central Bank is constrained to provide sufficient reserves to prevent instability. Hence the money supply is endogenously determined, at least when the financial structure is instability prone.

When financial actors take positions they make assumptions about the future. We posit an economy in which agents remember that the past includes explosive booms and destructive contractions but suppress their memories of past booms and bad times because the world is taken to be different in some specified way: The Federal Reserve System was the new player in the nineteen twenties, fiscal policy was the new player in the post world war 2 era, deposit insurance was the device that they would use in order not to allow it to happen again, etc. When such a suspension of disbelief takes place, agents begin to base their behavior on the assumption that good and getting better times are here for ever and ever. The boom or even an extended expansion sees the spread of a belief that they wont let "It", a big and serious depression, happen.5 When this model of the economy takes over in the minds of decision makers, it becomes almost a certainty that financial positions that are hospitable to crises will emerge.

The reply to an assertion that they wont let it happen is "Who are the they and what is it that they will do?". It turns out that almost always the they have but limited powers, lack ability, are reluctant to intervene and often operate with an inappropriate theory of the economy as the guide to their actions.

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5 H. P. Minsky Can "It" Happen Again?", M.E. Sharpe Inc, Armonk NY, 1982.

Once conditions have been "ripened" by a successful past of the process, chaotic episodes of some significant duration, such as a debt deflation process, can ensue. The credit crunch phase of a debt deflation interactive process that potentially can lead to chaotic conditions, takes place when agents, be they bankers, business men or households with portfolios that were stretched during periods of good times, begin to fear that the good times may soon end and take measures to protect themselves.

A full development of a systemic credit crunch takes the form of a liquidity crisis in which business men as borrowers and investors, bankers as lenders and debtors, and households as the ultimate owners of the economy's wealth attempt to increase the amount of their secure financial assets even as they try to restrict their indebtedness. A crunch is the flow part of the stock adjustments that are desired after a shift away from the euphoric expectations about the future of the economy of the boom phase takes place.

The great contraction of 1929-33 was a fully developed chaotic episode in our economies. In the winter of 1932-33 this led to a virtual breakdown of the American economy - as well as of other capitalist economies. The credit crunch of the winter of 1932-33 virtually destroyed the financial structure of the United States. Of the 16,000 banks that were closed in the bank holiday of February-March 1933 only

2/3 (12,000) reopened. About half of the banks that reopened did so with an infusion of capital from the Reconstruction Finance Corporation, the government holding company that played a key role in reconstituting the financial structure after the great collapse. Furthermore the banks that were allowed to reopen were "guaranteed sound", i.e. their liabilities were "guaranteed" by the government.

The resolution of the 1933 chaotic condition required changing the character of inherited institutions and developing new institutions. One example of an institutional change resulting from depression era experience is that bank deposits were first guaranteed by the government as banks were reopened and then insured by various deposit insuring institutions that, as we now fully understand, were able to pledge the full faith and credit of the Federal Government. The rational for deposit insurance was that if the central bank failed to rig financial markets so that the viability of deposit taking institutions was assured, then there was another level of protection for some class of depositors in the form of Federal guarantees on the nominal value of the deposits. Deposit insurance is another facet of Central Banking, a facet that assures that losses on assets will not be passed through to the designated classes of depositors.

The nineteenth century British technique of Central Banking, through the mechanism of a discount window, open, albeit at a penal discount rate, to all eligible paper, prevented the free fall in price of such paper. The most such paper could fall was determined by applying the penal rate to short term paper. The wide open discount window in times of crisis prevented a generalized cataclysmic fall in asset values. As a result the liabilities of the protected institutions were sustained in value.

In the United States in the period 1929-33 the Federal Reserve was not able to prevent a pass through, for the banking system and for the thrifts, of problems in asset values to the validation of liabilities: bank and thrift deposits were assets at risk. As a result of this failure deposit insurance, with its well understood problems, was put in place to assure that what had been assumed to be true with the passage of the Federal Reserve Act was true in the future. The United States Central Bank, with prudential supervision, deposit guarantees and chartering divided among different bodies became and seems certain to remain, a strangely decentralized institution.

A significant characteristic of the era since the great depression, which differentiates the modern economies from those prior to World War 2, is the great increase in the relative size of government. The main proximate macroeconomic impact of the big Government that

characterizes all modern capitalist economies is upon the determination of aggregate profits. In a capitalist economy with small government and in the absence of international trade and financial relations

Gross Profits = Investment.

In a modern economy with big government and fairly open international trade, as a first approximation

Gross Profits = Investment + government deficit + balance of trade surplus.

The deficits that a government, which follows a consistent policy of balancing its budget at target system performance levels, runs when performance is below target sustains the mass of profits available to business: if government tax and spending policies are well designed then gross business profits after taxes will be sustained during recessions. This fiscal stabilizer is of vital importance if we wish to understand why our post world war II economies have been as successful as they have been.

One word answers the question "What does stabilization policy stabilize?". The word is "profits".

We all know that for the United States over 1929-1933 current dollar gross national product fell some 50%, which broke down to an approximately 30% fall in output and an approximately 30% fall in prices. What is not so well appreciated is that over this same interval the popular indices of stock market prices fell by some 85%. Output

prices increased dramatically relative to asset prices during the great collapse. This radical change in the relative price which is of the greatest significance for a capitalist economy took place because the crunch of 1929-33 led to a rise in the standards which assets needed to satisfy if they were to be accepted into various portfolios.[6] The other side of the coin to a rise in standards for entry into portfolios is a decline in financed investment. In a small government economy this leads to a corresponding decline in aggregate profits. The drastic fall in aggregate profits by itself assured that a drastic fall in asset values would take place: the rise in the implicit discount rate on these drastically lower profit realizations and expectations made it certain that the fall in asset values would be disastrous.

The immensely larger size of the Government budget relative to the size of the economy in virtually all capitalist economies assures that a drastic fall in global aggregate profits is most unlikely. This is a powerful stabilizer of the value of those assets which are capitalizations of expected future profits.

As a result of the changes in the institutional structure that followed the great depression the present systemic financial crisis differs in significant ways from

6 This is what Charles Kindleberger calls a revulsion, Keynes called it a rise in liquidity preference. C. J. Kindleberger , John Maynard Keynes, Hyman P.Minsky, John Maynard Keynes, (New York, Columbia University Press 1976)

past systemic financial crises. For example there have been no runs of retail deposits from banks in the United States during the current era of banking trauma. The insurance company that was conserved by New Jersey in July 1991 was brought to the verge of bankruptcy by a run of policy holders. In the aftermath of that event we can be assured that additional insurance companies will have funding problems. The difference in the behavior of depositors in banks and the holders of insurance company policies and annuities demonstrates the power of deposit insurance as a barrier to another depression.

In early July a consensus seemed to be developing that the recession was well over and many in the forecasting community argued that this end began as early as April. If it turns out that the depressive forces have been contained much of the credit for this containment has to be given to deposit insurance and the resulting validation of all deposits, even though the market value of assets owned by many banks cannot support these prices for their liabilities.

Even as we can identify the problem of the transition in Eastern Europe and the Soviet Union from Lenin-Stalin brand of Socialism as the quest for apt economic and financial institutions, so the credit crunch and the general stressing of financial institutions in the United States means that the institutional structure is inept. The United

States also on a quest for apt economic and financial institutions.

There is a quaint American folk saying "If it ain't broke don't fix it." In the 1930's the consensus was that the financial structure was broke. As a result it needed fixing, and a radical transformation of the financial and the fiscal system followed. It is necessary for the economists to recall that the Roosevelt era reforms preceded the publication of the General Theory. The theory underlying the reforms were not Keynesian.

Today the financial system may be broke, but the economies are not in the crisis state of the early 1930's. The consensus seems to be that some details of the financial system need modernization, but that no thorough overhaul is necessary. We will now turn to why the consensus may be wrong.

II. Economic Theory and The Interpretation of Credit Crunches.

"As every individual, therefore endeavors as much as he can both to employ his capital in the support of domestic industry, as so to direct that industry that its produce may be of the greatest value; every individual necessarily labours to render the annual revenue of the society as great as he can. He generally, indeed, neither intends to promote the public interest, nor knows how much he is promoting it...and by directing that industry in such a manner as its produce may be of the greatest value, he in intending only his own gain, and he is in this, as in many other cases, led as if by an invisible hand to promote an end which was no part of his intention.

Adam Smith
The Wealth of Nations

"If I may be allowed to appropriate the term speculation for the activity of forecasting the psychology of the market, and the term enterprise for the activity of forecasting the prospective yield of assets over their whole life, it is by no means always the case that speculation predominates over enterprise. As the organization of investment markets improves, the risk of the predominance of speculation does, however increase. Speculators do no harm as bubbles on a sea of enterprise. But the position is serious when enterprise becomes the bubble on a whirlpool of speculation. When the capital development of a country becomes a by-product of the activities of a casino, the job is likely to be ill done..."

John Maynard Keynes
The General Theory of Employment
Interest and Money

The above well known citations from Smith and Keynes reflect two views about what it is that economic theory needs to explain. From Smith economists inherited the need to demonstrate that the result of market processes with

given resources, preferences and technical capabilities achieved an equilibrium, that this equilibrium "promotes the public interest", that this equilibrium was unique, and that it was stable. The policy prescription became laissez faire.

Two centuries after Smith economist know that an equilibrium which meets a narrow definition of the public interest exists, but this equilibrium is not unique and the system is not in general stable. The Smith legacy in economic analysis is a concentration on the economics of the effective use of what exists, on allocational efficiency, and a bias is setting up economic problems so that the financial and the real aspects of the economy are treated in separate compartments. This is the meaning of the quantity theory of money, i.e. monetarism.

It is not fashionable among economists to refer to Keynes these days. However the perspective in the citation from Keynes is diametrically opposed to that of the citation from Smith. In the Keynes citation the problem of economic theory is to determine the conditions under which the capital development of the economy is done well. To Keynes the financial structure is intimately involved in whether the capital development of the economy is done well.

The legacies of the past decade in heavily indebted companies and real estate that cannot earn rents that support the instruments used to finance construction are

evident that the capital development was not done well. The crisis in finance in the United States is not just in the weak and failed Savings and Loan Associations, Banks and Insurance Companies but in the overbuilding of office buildings and corporations with debt structures that are legacies from the Leveraged Buy Out mania. These heavily indebted corporations are not able to buy the capital equipment that would enable them to compete in the global marketplace.

The statement that an economy's financial institutions may be apt or inept has meaning only within an analytical framework in which financial institutions and usages matter in determining the behavior of the economy. On that score the Keynes perspective is superior to the Smith perspective.

Credit crunches, the topic of this Conference, are one of the transmission mechanisms by which the financial structure impinges upon our modern market economies. During a credit crunch lenders and borrowers alike find that their opposite number in potential financing transactions are not coming up to standards which recently ruled, let alone to the higher standard that lenders now believe market experience warrants.

Before we go any further we have to make precise what we mean by the phrase "modern market economies". Modern market economies are capital using economies which have complex, sophisticated and evolving financial structures.

Each of the above characterizations of a modern market economy requires explanation and each item in the list acquires meaning only within an institutional structure. The institutional structures of successful market economies are diverse and any particular structure does not function with the same success in all circumstances.

Because of modern communications, modern market economies require much more in the way of transactions at a distance than was true as the 1980's rolled in: face to face transactions, which are completed at the time of the transaction, are smaller and smaller parts of total transactions.. Not only are goods and services traded over great distances, but both evaluations of credit worthiness and payments need to made over these distances.

The performing of banking functions, such as operating the payments system and ascertaining the credit worthiness of agents, is essential to the modern economy. As markets have grown and as communication devices have improved such essential banking functions no longer are monopolies of organizations chartered as banks. Credit rating bureaus, credit card processors, money market mutuals (unit trusts) and currency exchanges (check cashing services) have taken over some tasks that were essential functions of banks not many years ago.

Capital using means that the instruments used in production are expensive. The crude and primitive mode of

production and distribution, in which workers owned their own tools, has progressively come to be of diminishing importance. This is so because capital assets which are expensive, long lived and specific purpose have become the cost effective way to carry on production, communication and distribution.

Let us assume bankers react to a failure of a string of customers to perform by reevaluating the risks they face in lending. This leads them to require a larger margin of safety from customers. This lowers credit forthcoming: in particular one reaction by bankers is to lower the lines of credit of existing customers and to be less aggressive in pursuing new customers. Customers react to such a change in their circumstances by lowering their activities which are financed by bank debt. As a result inventory disinvestment will take place and planned near term spending on long term investment projects will be reduced. Investment spending will decline in the aggregate. In a small or no government capitalist economy this lowers aggregate business profits. As a result additional bank customers cannot perform and the margins of safety that banks realize on their performing loans falls short of their desired margins of safety. Further reductions in lines of credit, bank lending, and business investment follows. A progressive worsening of borrower's performance, bank balance sheets and income, aggregate profits and employment follows. The initial disequilibrium worsens, which leads to a further decrease in

lines of credit, lending, investment and business profits. This process is what Fisher called a debt deflation.

Note that every unit in the process we just sketched, be it banker or business man, investor or consumer, acts in an Adam Smith fashion. An agent is guided only by its perception of its own self interest. But in doing this it contributes, as if guided by a malevolent invisible hand, to a progressive deterioration of the economy.

Once banks that finance activity and long lived capital assets are introduced into the argument, the interactions in decentralized markets, when the economy is faced with non performing assets, can make thing worse not better. There is no non-malignant equilibrium that the market seeks out.

The Fed's policy of leaning against the wind may reflect an intuitive feeling that this can happen. But more significantly a major reason for Central banks as we know them to exist is the fear that the normal functioning of a modern economy can lead to a set of relations among firms, households and banks that can lead to a debt deflation and therefor to a deep and long lasting depression.

The Keynes citation looks to the question of the stabilization efficiency or even the growth efficiency of the economy. It may well be that the laissez faire economic structure that is allocationally efficient is stabilization

inferior to an alternative big government and active central banking economic structure.

III. Systemic versus Idiosyncratic Crunches.

Henri Poincare to Leon Walras
"You regard men as infinitely selfish and infinitely farsighted. The first hypothesis may perhaps be admitted in a first approximation, the second may call for some reservations."

It is important to distinguish between credit crunches that are induced by policy actions and credit crunches which are the result of the transformation that the financial structure undergoes during an euphoric boom. The credit crunches of the 1960's resulted from rigidities in the financial structure which the Federal Reserve exploited to prevent the emergence of inflationary aggregate demand. The "Thrifts", a generic term for savings banks, were protected from competition by ceilings that were set on the various liabilities they issued. If the ability of such institutions to acquire assets was restricted, then a rise in interest rates would lead to a decline in the funds they had available for placing.

In spite of Alan Sinai"s contention to the contrary, I would argue that Credit Crunches are creatures of the past twenty five or so years. The first twenty or so years after World War II were years of on the whole tranquil expansion.

I have been given to calling that epoch a practical best for the American economy.

As this period began banks made position by dealing in Treasury Securities, mainly short term. As the civilian economy took over from the war economy, private debts expanded. One can trace out in the published aggregate balance sheets how one sector after another used up its excess Treasury securities. The emergence of the Federal Funds market in the mid 1950's was a response to the inability of large money center banks to make position by dealing in Treasury securities. This took place when the money center banks had expanded their holdings of private instruments by selling off their holdings of short term Treasury securities.[7]

The Federal Funds market that emerged in the mid 1950's was the first step in a process that led to the end of the dominance of position making by dealing in assets and the emergence of the dominance of position making by operating on liabilities. The process of financial adaptation, which seemed a novelty when I reported and analyzed the phenomena in 1957, has become commonplace. Constraint by the central banks which leads to interest rate differentials among instruments leads to financial innovation which enables units to attenuate if not escape from the quantitative

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7 H. P. Minsky Central Banking and Money Market Changes, QJE 1957

constraint imposed by the central bank by substituting an interest cost for a quantity constraint.

Avoidance, if not evasion, is the market response to effective constraints. This effective attenuation of the constraint can be identified as liquidity decreasing risk increasing balance sheet changes.

IV. Policy Implications of Crunches

The crunch phenomena has taken different forms over the past quarter century. In 1968, writing of the Crunch of 1966, I remarked

> "The fundamental economic law behind the crunch is this: The only way to break an inflationary investment boom set off by the evaporation of uncertainty is to introduce uncertainty. This is what the Crunch did. In short, the Crunch was both an instrument of policy and a result of that policy."

The crunches of 1966 and 1990 - are different. The 1966 crunch took place within a structure of regulated interest rates, which made it possible for the Federal Reserve to force disintermediation and therefor a crunch. The 1990-91 crunch is taking place within a structure of market determined rates and is not a proximate result of Federal Reserve actions. The current crunch may best be viewed as a rise in banker's liquidity preference as a result of loan losses and the consequent compromising of bank capital.[8]

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8 In the light of the recently revealed losses by Westinghouse's financial arm the lenders reluctance is spreading to the finance houses and the markets in which they finance their position.

The common elements are that both types of crunches came after an euphoric period in which the possibility of a deep depression was discounted and liability structures were stretched. Both of these repercussions of euphoria led to a decline of bank financing of activity. Furthermore both demonstrated that financial crises and even deep depressions are possible and that Federal Reserve intervention can be forced by market behavior.

Although crunches, or sharp increases in liquidity preference, can arise out of the normal functioning of an economy in which euphoric booms are possible, prompt Central Bank intervention to prevent a cumulative decline in asset values can contain the effects of such crunches. It needs to be noted that in the United States over the past several years the essential central bank action of sustaining asset values was performed by the deposit insurance funds which has kept a vast mass of assets of failed institutions off of the market and kept the deposit liabilities of the failed institutions at par.

The crunch phenomena is a reminder that "It", a deep and protracted depression which develops out of a Fisherian debt deflation, can happen again. Central Bank interventions are one element that contains the dynamics of our type of economy so that "crunches" do not lead to deep depressions. The ability of the government to fund profit

sustaining deficits, when the income, employment and price behavior of a depression becomes evident, is another.

For the government to be able to run the potentially huge deficits that may be needed to stabilize profit flows the government needs to be able to finance these deficits. In a global financial environment government liabilities are really not different from private liabilities. Just as profit flows validate private business debt, household wage, property and transfer payment incomes validates household debts so government tax revenue validates government debts.

I have been associated with dividing the financial postures of organizations into hedge, speculative and Ponzi financial postures.[9] A hedge posture exists when the revenue stream enables a unit to meet all the payment commitments on liabilities out of current income. An example would be a household that can meet its payments on mortgages and car loans out of the pay packet. Corporations whose liability structure is dominated by equity shares are operating towards the hedge end of the financing spectrum.

A speculative posture exists when a unit has a significant amount of short term debt which cannot be paid out of normal operating revenues but its income is large enough so it can pay all of the interest due. Units that

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9 An early reference to Ponzi finance is "The Financial Instability Hypothesis,: an Interpretation of Keynes and an Alternative to Standard Theory", Nebraska Journal of Economics and Business, Winter 1977, Vol 16, No. 1.

finance long positions by short liabilities are speculative in this sense. Banks, commercial paper issuers and governments with short term floating debts are speculative units in this sense. These units are speculative because they are vulnerable to changes in market interest rates. Speculative units also include those who finance by way of floating rate instruments.

Ponzi units have outstanding debts, both long and short, and they cannot meet the interest payments on these debts, let alone repay principle. They pay the interest due by increasing their debts. Speculative units become Ponzi units during periods of extraordinary high interest rates. One of the explanations of the Latin American debt trap is the rates on their floating rate debts over the 1980's. Ponzi finance therefor is a financial posture in which interest is capitalized.

In todays global financial environment where international portfolio diversification is a reality for all, governments are, in truth, not different from private debt issuers. Even for a largely domestically held debt, governments need to validate their debts by tax revenues. This is especially true if government deficits are going to be used to sustain aggregate profits whenever financial market and liability structures constrain private investment.

The conundrum is resolved by making the government fiscal posture one of always having in place a spending and tax policy which balances the budget at full employment, although the in fact budget may show a deficit because of the shortfall in income from target. In other words the government budget moving from balance to deficit as the economy sinks into a recession and from balance to surplus as the economy becomes inflationary should become the major stabilization tool. In an economy with a complex financial structure stabilization policy requires that the government's debts be beyond reproach: this requires the firm establishment of what we can call the virtual balanced budget rule.

If we combine the need for a virtual balanced budget with the need for a big government as the fiscal stabilizer in our endogenously unstable economy, then we need to have in place a tax system that yields "big" revenues. Such a tax system will bite into private disposable incomes. This tax system will hurt: avoidance, evasion and political pressures to reduce the tax bite will arise. No more need be said except that it is imperative that government spending be seen as yielding wide and necessary benefits. This argues against a sterile transfer payments emphasis in government spending.

For the entire period 1946-80 the United States had an adequately close approximation to the rule of a balanced

budget but for recessions and wars in place. Over this long span of time the government debt relative to both income and private debt fell. In the 1980's a radical change in the fiscal posture of the United States took place: the United States abandoned fiscal responsibility: the debt servicing costs exploded so that the United states is now engaged in Ponzi finance.

The balance sheet implications of a private organization engaging in capitalizing interest (Ponzi Finance), are that debts increase and equity is lowered. For a private unit this process comes to an end as equity approaches zero. As this process takes place the quality of the debt outstanding deteriorates: the companies rating goes down and the premium interest rate it needs to pay increases.

I would like to suggest that one reason for the high price level deflated interest rates that now rule is that the quality of United States debt under the regime of Ponzi finance that was developed in the 1980's is substantially lower than it was during the prior regime, in which the government practiced speculative finance.[10]

We know some of the dimensions of the policy regime that has to be in place if the adverse effects of credit

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10 We need only recall that the Bank of England was chartered because, in the Government tax and spending regime that then ruled, the market held private debt in greater esteem than sovereign debt.

crunches are to be contained. The policy regime has to include a big government with a virtual balanced budget as well as a central bank with broad supervisory powers. Other aspects of the current economy that a modern financial system has to come to grips such as the development of vast unit (mutual) trusts and pension funds with broad portfolio problems we can leave to another day.

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AN HISTORIC AND THEORETIC PERSPECTIVE ON CREDIT CRUNCHES: Addendum

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Credit crunches are one phase of the process that leads to debt deflations and therefor to deep depressions. If credit crunches are not contained by institutional structures and offset by governmental interventions a collapse of asset values, the financing available for investment, aggregate profits and income and employment are likely to occur. Devices that contain the effects of crunches need to be built into the structure of financial institutions and government bodies: Central banks, government financing and refinancing organizations and the government fiscal budget are such devices.

A debt deflation is like a viral disease which attacks one part of the community after another. An effective institutional structure will include devices which contain the spread of the virus. There is a need to quarantine or isolate the part of the financial structure that is being victimized by a crunch so that the disease does not spread. The continuing crisis in real estate values first impacted upon Savings and Loan Associations, then hit the Commercial banks, went on to infect insurance companies and now seems to be hitting the commercial finance houses. The potential exists that the hit that the commercial finance houses are taking will impact the industrial owners of these finance houses and the various funds that own the liabilities of these finance houses.

The existence of crunches and the way they may spread through the economy throws light on the current controversy about the relative merits of Universal banks and compartmentalized financial structures.

The initial condition for the current banking and financial system of the United States is the compartmentalized banking system that was put in place in the aftermath of the great crisis of 1929-33. This structure, which was more or less put in place by the Banking Act of 1935, grew out of the dissatisfaction with the performance of the economy after the stock market crash of 1929 and the subsequent period of economic and financial collapse. The banking system which crashed in the great contraction of 1929-33 had elements of Universal Banking. For its time Morgan bank was a universal bank. While the dual banking system allowed both State and Federal chartering of Banks, therefor introducing strong elements of decentralization into the financial system, there were few limitations on the lines of business that a Bank could enter. In particular banks could underwrite and distribute securities.

The universal banking system of the half century leading up to the great crash made for a concentration of power into intertwined financial, trade and industry combinations. In these combinations the center of power was usually some bank: The Morgan Bank, The Rockefeller connection, Kuhn Loeb's club etc. are examples of the

finance and industry networks. In addition to these great New York based groups, there were also regional combinations of great power and strength: The Mellon Bank of Pittsburgh was one such combination.

In the 1930's the efficiency of the banking system of the 1920's was also questioned: The national and local Universal Banks financed a wave of mergers and acquisitions and the way their trust departments operated seemed to violate fiduciary standards. These financial and industrial combinations were blamed for abusing power and advancing the monopolization of industry and trade.

Furthermore the banking system of the 1920's was believed to have facilitated speculation and therefor made the open ended crash of the financial structure that took place between 1929 and 1933 possible. The reasoning was that the asset structure of the Universal banking system combined the financing of speculation and the financing of activity. The losses that banks experienced in 1929 and 1930 on their financing of speculation impaired their net worths and their ability to fund the financing of activity. Universal banking was held to be responsible for the collapse of asset values, financing and therefor of profits, income, and employment. Certainly the capital development of the economy, which after all is a main criteria by which the efficiency of an economic structure is judged, was not done well between 1929 and 1933. The banking and financial

system, along with the industrial structure, were blamed for what happened.

One part of the solution to the breakdown of the economy and the financial structure between 1929 and 1933 was to put in place a financial system that contained special institutions for the financing of various dimensions Of the capital development of the economy, as well as the separating of the financing of trade from the financing of positions in capital assets. The result was a structure that consisted of independent institutions which were limited in the activities in which they could engage: the financial system was broken into compartments. These compartments were linked and coordinated by markets for financial instruments: in the beginning the Treasury bill market was the main linking market.

Specialized private and public institutions and instruments were organized for home financing, rural electrification, agricultural credit, the purchase of automobiles and other consumer durables as well as for the insurance of various deposits. The public market for securities was protected by making financing, trading in securities and the financial position of organizations transparent.

This "horses for courses" structure was not neat. Quite soon after the legislation put this institutional structure in place an evolutionary process that modified the financial structure began. Nevertheless the Jerry built

structure seems to have served us well: the first 25 years after World War 2 may well be a practical best for our essentially imperfect world. Even though the United States economy has not done as well in the years since 1970 as earlier in the post war world, at least we have avoided a bone crunching depression.

Therefor historical experience can be interpreted to show that a decentralized and compartmentalized financial system can be supportive of a prosperous and growing economy. There is no theoretical argument that indicates that the coordination of resource use by the hierarchical-command structure of a particular Universal bank is superior to the coordination of resource use achieved by markets which integrates the behavior of independent organizations. There are reasons to believe that the support which the Federal Reserve can give to markets when crunches are disrupting the performance of specific markets can contain the impact of the disturbance upon the other markets. In a world subject to financial crises and financial market crunches a decentralized structure, in which clearly transparent markets act as both the transmitting mechanisms and as intervention points for central banks and specialized government refinancing organizations may well be superior to a system of universal banks which require each bank to build and sustain firewalls which act to contain and localize crunches. We can expect crunches to have greater impact when they seriously impact upon the viability of

organizations with a wide penetration into the industrial structure of the economy than when they have to spread through markets from one organization to another.

Furthermore the viability of a Universal banking structure depends upon a government that is free to intervene and has the ability to refinance on an ad-hoc basis: properties that are missing into the United States.