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Notes on: "Suggestions for a Cash Flow Oriented Bank Examination" - a document prepared for the Board of Governors of the Federal Reserve System in the summer of 1967;

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Introduction

In the summer of 1967, as an offshoot of my work for the Board of Governor's: "Reappraisal of the Discount Mechanism"[1], I prepared some suggestions for a cash-flow oriented bank examination procedure. In the light of developments over the past eight years, it seems desirable to resurrect the approach contained in my report. In particular, the growth of what is now called liability management banking makes an approach to the analysis of the operations of a bank that looks at the liquidity and solvency implications of both assets and liabilities especially relevant.

In the suggested examination procedure two items are emphasized: the desirability of integrating a flow of information from bank examinations into the material which affects monetary policy decisions, and the need to emphasize how, at any time banks make position i.e. which money market instruments can be expected to be mainly affected over the examination horizon by emerging developments, as seen by an analysis of a current position. It is important to note that while the standard examination is essentially timeless, the cash flow procedure emphasizes the future implications of today's financial legacy of the past, i.e. time and the uncertainties inherent in time are integral to the cash flow perspective.

In the light of developments over the past several years it seems that a cash flow oriented bank examination of the type suggested should enable the authorities to get a better handle on the operations of the giant multi-billion dollar banks than is now available. Also it is now clear, as it was not in 1967, that the giant banks are in effect lenders of last resort to both non-bank financial institutions and various short term financial markets in which both

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[1] "Financial Instability Revisited: The Economics of Disaster" Board of Governors of the Federal Reserve System: Reappraisal of the Federal Reserve Discount Mechanism, Vol. 3, pp. 95-137, 1972

financial institutions and non-financial corporations raise funds. We can call these non-bank financial institutions and these markets "fringe banks" (for some purposes the fringe banks could include non-member banks). In a revision and updating of the suggested examination procedure one focal point should be the commitments by banks, especially the giant banks, to such fringe banking institutions and markets.

One byproduct of a cash flow examination procedure will be more precise knowledge of the relations between the examined institutions and fringe banks. Such a clarification will enable the Federal Reserve to better know what is emerging in financial relations and to be better prepared for contingencies that might dominate as the determinants of its behavior.

The extent of the explicit and implicit exposure by banks to these fringe banks is obviously a parameter that has to be fed into monetary policy operations. It seems evident that monetary constraint, in the face of a booming economy, is for a time offset by an explosive growth of both non-deposit liabilities of banks and fringe banking. It is also clear that during such boom periods emphasis upon bank liabilities and in particular those liabilities which are normally called money - M_1, M_2 or whatever - misses what is going on and thus tends to mislead the authorities. In particular the ability of money market developments to offset monetary constraint; at least for a while, means that monetary constraint will be ineffective until it leads to such interest rates and exotic financing that a "break" in financial variables or channels can occur. When this happens the need for the authorities to act as a "lender of last resort" requires a substantial infusion of monetary reserves. The availability of traditional monetary constraint as a tool of economic control is very much in question as a result of recent experience.

The economic theoretic underpinning of this examination procedure is the financial instability hypothesis, which in turn is an unorthodox interpretation of The General Theory of Keynes.[1] This view holds that there are endogenous destabilizing forces, which center around the sophisticated financial system of a modern capitalist economy, that make business cycles of the kind that involve threats and realizations of financial crises an inherent characteristic of these economies. Recent experience - the crunch of 1966, the liquidity squeeze of 1969-70, and the current difficulties - are gross evidence that such crises and threats of crises are still with us.

A fundamental question in economic theory is whether the development of such crisis prone situations reflects a fundamental characteristic of the economy we are dealing with or whether they are the result of correctable institutional flaws or policy errors. A quite common interpretation, implicit in both the moneterist and the conventional Keynesian views, is that our current crisis is due to errors of management rather than inherent characteristics of the economy. The view embodied in the suggested examination is the inverse of the common view.

A basic proposition in the alternative interpretation of Keynes is that "capital assets are valuable because they yield profits not because they are productive" (a paraphrase of remark by Keynes) and that capital assets and financial instruments have to be viewed as annuities i.e. items which are expected to yield cash flows. Thus the balance sheet for all units can be interpreted as a series of dated, demand, and contingent commitments to receive and to pay cash. One operational constraint upon the behavior of all

[1] A statement of this interpretation is scheduled for mid-September publication: Hyman P. Minsky John Maynard Keynes Columbia Essays on Great Economists, Columbia University Press 1975 (forthcoming). Insights into this interpretation can be gathered from Hyman P. Minsky "Money and the Real World: A Review Article" The Quarterly Review of Economics and Business, summer 1974.

units is the need to have cash on hand to meet payment commitments as they arise, i.e. all units can be viewed as banks. The nature of liabilities in particular their time dimension, is of equal importance with the assets of a unit as a determinant of the market conditions that affect its profitability.

In addition to receiving cash from the fulfillment of owned contracts and from "normal" deposits, a bank or other economic unit, can acquire needed cash by dealing in assets or selling liabilities. But dealing in assets or selling liabilities implies that a bank's viability and future profitability depends upon the normal or proper functioning of some financial markets. For example the continued ability of a bank to sell commercial paper or to sell certificates of deposits depends both upon the units own position and the normal functioning of these markets. Thus a dual vulnerability emerges wherever cash flows from operations are insufficient to meet financial commitments.

Of particular importance in a cash flow perspective of the functioning of the economy is the distinction between hedge, speculative and "Ponzi" finance.[1] In hedge finance the cash flow from operations are expected to be sufficient to fulfill contractual commitments. In speculative finance the present value of expected cash receipts exceeds that of cash payments, but liabilities are more current than assets so that regular refinancing of positions is needed (this is the typical position of a bank). In Ponzi financing the present value of cash flows from assets are less than the present value of cash flows due to liabilities, but payments, including dividend and interest disbursements, are met by liability increases. It seems evident that "Ponzi" finance emerges as a significant factor as interest rates rise. Those R.E.I.T.'s which paid cash dividends on the basis of interest accruals were engaged in "Ponzi" finance.

[1] Hyman P. Minsky "The Modelling of Financial Instability: An Introduction" Modelling and Simulation Volume 5: Proceedings of the Fifth Annual Pittsburgh Conference, Instrument Society of America 1974, part I, pages 267-273.

It is evident that the nature of Federal Reserve responsibility, as well as the effects upon system performance of Federal Reserve policy actions, depends upon the relative weight of hedge, speculative and Ponzi finance in the economy. In particular in a world of hedge finance rising and falling interest rate do not affect the viability of institutions whereas in a world with a large admixture of speculative finance high and rising interest rates can transform speculative units into "Ponzi" units - "Ponzi" units can be sustained either because of Micawber sentiments - something will turn up - or because no one is willing to announce that the "Emperor has no clothes." I expect that the current situation of many units reflects such Micawber and naked emperor situations.

The standard bank examination procedure focuses on two phenomena: the discovery of fraud and the oversight of the loan portfolio. A major examiner's concern is the proper documentation of loans and some evaluation of whether the loans are standard or substandard. Substandard loans in turn are classified according to the estimated likelihood of repayment. Certainly at the time I looked at the examination procedure, little or no attention was paid to the liability structure - perhaps because our current fancy liability structures were just emerging. The present standard fraud and loan quality procedure is adequate for the examination and analysis of the operations of smaller banks - which in the present context might well be all banks of less than $500 million in assets. (The 200th bank in the Business Week list of 200 largest banks has $625 million in assets). Thus the need is for an examination procedure which can lead to a better control of the largest banks, and a better understanding of what happens in financial markets.

There is a fundamental difference in the perspective of the standard and

the suggested bank examination procedure which perhaps should have been pointed out earlier in these notes. The standard examination procedure focuses on the individual bank and views the emergence of problem banks as the result of individual error if not fraud. It quite clearly reflects an "insurer" or a "consumer union" perspective. The examination procedure embodied in "Suggestions..." focuses upon the emergence of taut market situations, taking a tendency to speculate and to innovate in financial usages as an inherent characteristic of not only banks but also of business institutions in general. The emergence of taut or fragile financial circumstances is viewed as a characteristic of financial markets and the emergence of particular banks or fringe banks as the focus of a problem situation is viewed as mainly the luck of a draw. That is there always will be a breaking point in a fragile financial situation, and the particular banks that emerge as the problem banks do so mainly because of the market situation rather than because of their particular circumstances. In the current situation problem banks can emerge because of their exposure to R.E.I.T.'s, or to New York City bonds, or to the financing of giant corporations - but these problems in turn reflect prior economic and financial market developments.

Thus the perspective of the suggested examination procedure is clearly that of the monetary authorities. The question asked is "Can we see the emergence of financial situations that will lead to our need to act as a lender of last resort?" and "How if at all is the emergence of such a situation the result of policy actions we take?"

It is also worth noting that a cash flow oriented examination procedure is analagous to an internal control system, for a complex financial organization, that focuses upon liability exposure and the need of the unit to make position.

In fact we can view the suggested procedure as an attempt by the authorities to develop a unified perspective on bank operations, and this unified perspective is that of the manager of the cash position of the organization.

Finally the 1967 document was properly labeled as "Suggestion....." It is evident that experimentation with procedures and content was called for. In particular the underlying perspective is that banking is a dynamic, evolving, and innovative industry and the examination procedures need to evolve to keep up with changes in banking. Over the eight years since the procedure was suggested, the emergence of the complex multinational bank holding companies has changed banking. I would not venture to guess without more detailed knowledge than I possess today how to capture these operations in a revised cash flow examination procedure.

There is not sufficient allowance in the suggestions as written for foreign banking operations. In the light of one dimension of the Franklin National debacle there is need for a study of how to examine foreign banking operations and how to integrate foreign exchange exposure into the examination procedure.

Comments on the 1967 Suggestions:

1. page 2 - A view that underlies this report is that the viability of an institution - be it a bank or an ordinary business firm - depends upon economic conditions. In the light of experience since 1967 it is evident that any conditional analysis will have to consider how the organization will be affected by wide swings in interest rates.

2. page 4-5 - Since the 1967 report there has been a sharp increase in formal lines of credit which specify the commitments of banks. An examination procedure of the type suggested would reinforce this trend and as a result the data on commitments would be more readily available.

3. page 4-5 - As the focus of this examination procedure shifts towards the giant banks, national economic conditions become the dominant determinant of the expected cash positions and the need to break national forecasts down to local forecasts decreases.

4. page 5 - The view that banks aggressively sell their liabilities while rather novel in 1967 is part of today's conventional wisdom. The set of liabilities that banks "sell" is much greater in 1975 than in 1967, and the focus upon deposits rather than liabilities in the 1967 report is a bit old fashioned.

5. page 6 - It needs to be emphasized, perhaps more strongly than in the 1967 report, that the flow estimates are not to be derived by first estimating an end of period balance sheet and then determining the cash flow that will achieve this result; the cash flows both to and from a unit in asset accounts and on liabilities are to be estimated and the resultant terminal balance sheet position is to be determined.

6. page 7 - With the growth of bought funds the deposit argument has to be reconsidered. One way in which banking changed between 1967 and 1975 was that demand and pass book savings accounts declined as a proportion of total liabilities.

Even in the face of expanded deposit insurance more sophisticated liability structures have made the ratio of potentially volatile deposits significantly higher than early in the post-war era.

7. page 7 - Position making now encompasses dealing in many more markets than hitherto. One problem in bringing this suggestion up to date is to separate volatile liabilities and position making activity. It is also clear - as was implicit in the 1967 report - that position making activity and thus the key financial markets for Federal Reserve control can change radically over short periods of time. Without the depth of information that the suggested procedure develops the Federal Reserve often finds itself way behind the in fact developments in money markets.

8. page 9 - The core of the suggested examination procedure is a series of examination forms and notes on these forms. The objective of the set of forms is to determine the cash position prior to position making activities (form VIII) and then to determine some feasible position making programs for the bank (form X). The way to understand the suggestion is to start with form VIII and X.

Form X in turn could serve as an input into Federal Reserve policy making. If such information was fed into the Board of Governors regularly and aggregated, the emergence of overall cash deficits or surplusses for banks could be tracked. This in turn could be fed back by the Board of Governors into implications for market interest rates, and for the Federal Reserve's' own program which feeds reserves into the banking system. The objective of the procedure is to develop a system which warns of emerging market difficulties - although the way in which overall market pressures would affect particular banks should lead to a view of which banks and which markets will be most particularly affected.

9. page 11 - It might be desirable to break business deposits into compensating

balances and other.

10. page 11 - The deposits of financial institutions should be separated out; in particular if the focus of the examination is the large banks.

11. page 12 - In the light of the recent difficulties of some large regional banks it might be desirable to break CD's down between those sold in the Bank's own market and those which are sold through Brokers and Dealers.

12. page 12 - We now know that the simple set up of liabilities which identified only demand and time deposits was a gross oversimplification. We certainly need to include repurchase agreements. We should separate both demand and time deposits into domestic and foreign. The treatment of holding company commercial paper is of interest and we should find some way of treating holding company-commercial bank transactions.

13. page 12-13 - One glaring oversight in the reports is the absence of any capital accounts, although the change in the capital account due to retained earnings is implicit in the treatment of operating expenses and the way in which cash flows due to interest receipts and costs are entered. However in the accounts as written there is no way of treating an infusion of cash through new issues of debt or equity capital.

Incidently if the period under consideration is one in which there is a considerable infusion of bank capital through newly chartered banks, the examination procedure would miss these developments.

Perhaps we can view new issues of debt or equity capital as a position making activity.

14. page 13 - I used the term scheduled items for substandard loans of various kinds.

15. pages 13-16 - The important item to note is that the loan acquisitions are broken down into the result of explicit and implicit commitments and managerial

decisions. The cash flow oriented bank examination might well have another summary sheet which draws together the commitments by class of loan and the expected drawings of these commitments.

16. page 13 - Due to the proliferation of offshore branches in the period since 1967, a separate analysis of the offshore loan activity of the large banks would be in order.

17. page 18 - In the light of the recent behavior of interest rates and the quality ratings of municipal securities some attention should be paid to the market value of the investment portfolio. A marked shortfall of market value from book value will make investments unavailable for position making.