CENTRAL BANKING AT THE CROSSROADS

by

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Central banks - their functioning organizations, powers, objectives, instruments - can be understood in an historical sense only in terms of the milieu or basic apperceptions and attitudes of the people toward the prevailing social organization. The "secular trend" or major drift of central banking policy parallels, with a lag, changes in fundamental habits of thought. The development has not been smooth or uniform in rate. Periodically it is accelerated, retarded, or even reversed temporarily by important changes in political or economic affairs, of which the more common illustrations are revolutions, declarations of war, establishment of peace, and major periods of prosperity and depression. Finally, organizational, human, and apparently fortuitous elements may alter the development. Here come such factors as continuity of executive personnel, changes of generations, and personalities of force.

My observations will deal principally with two monetary and credit aspects of central banking policy; first, the relationship between Government and central banks, and second, instruments of policy. Other monetary aspects will be mentioned briefly in the conclusion. Service functions, which require the overwhelming proportion of man-hours spent by central banks, which must be performed by somebody, and are performed efficiently by central banks, will not be discussed in this paper. Legal aspects will be treated only at one or two points. The law, of course, is important; but it frequently permits greater latitude than is commonly

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supposed; and unduly restrictive legislation can be modified or suspended and will be so altered if the circumstances are sufficiently compelling. I shall assume that the judgment of Dr. Vera Smith that "the belief in the desirability of central bank organization is universal" will continue to hold in the calculable future and shall not discuss what she calls the rationale of central banking.

I. The Major Drift of Central Banking Policy

In broadest outline, the history of central banks reflects the gradual ascendancy and subsequent decline of the doctrine of laissez-faire and cognate habits of thought. This philosophy was not the product of any single individual. Embryonically, it had emerged in the 16th Century, possibly even at the time of the Reformation. Great strides were made in that age of genius, the 17th Century of Newton and Descartes, of Hobbes and Locke, of Milton and Dryden. The principles were applied to the field of economics by Hume and Adam Smith in the 18th Century. Gradually they dominated the thinking not only of the geniuses but of the middle class which ascended to power as well. Gradually, too, they came to dominate one after another the various aspects of central banking until they permeated the entire field by the middle of the 19th Century. Thereafter they declined. They were not at once superseded by new principles. At first technical modifications were introduced to meet existing needs. Such modifications, considered mere blemishes on the escutcheon of central banking theory, spread until theory and practice were at least separated if not divorced - an intolerable status. Recent developments have been in the direction of effecting a reconciliation of both with newer principles of social welfare.

1. The relationship between governments and central banks. The influences of fundamental philosophy on central banking theory and practice are illustrated in the history of the relationship between governments and central banks. Unfortunately for the scholar, it has been customary to settle disagreements between the two "consistent with the avoidance of unnecessary publicity," to use the expression of Governor Weguelin. Even so, systematic analyses of the extensive information that is available, especially in such sources as Parliamentary Debates and Papers, has been started only recently.

An obvious corollary of laissez-faire is that if there is to be a central bank at all, it should be independent of the government. Not everyone held this faith - or these politics - when the Bank of England was founded. A penalty was imposed on the directors should they lend to the Crown or buy Crown lands without Parliamentary consent because the Whig Parliament wished to tie the purse strings of the King, not to protect the Bank. For although Parliament closed the doors of the Bank to the King, it periodically visited the institution on behalf of its own finances. After the Bank moved its premises, it became known as the "Old Lady of Threadneedle Street"; and a significant part of its history touches the courting of the rich Old Lady by impecunious ministries in search of loans, and conversely the courting of sovereign ministries by the Old Lady desirous of favors. Advantages were gained by the ministries when they gave her a new lease on life by renewing her charter. Advantages were gained by the Old Lady when she enabled ministerial suitors to stave off financial embarrassment.

Gradually, selected incidents of these relationships became part of the tradition of central banking history. The experiences under John Law and with the assignats in France and those of the Napoleonic period in both England and France were standard equipment. These incidents were exhumed carefully to demonstrate an

inherent ineptitude, based on excessive spending proclivities, of government in the field of credit regulation. The conclusion that the bank should be independent of the government, which was exalted to an axiom, was in agreement with the experiences selected for analysis but not with all experience; it was derived from the inarticulate major premise, not from the evidence, which was a mere afterthought selected to be convincing.

Of course, there always have been those who refused to accept the dualistic philosophy implied in the notion of an independent central bank, and who insisted that governments have a responsibility to see that powers of central banks are exercised in the public interest. In 1897 Pelletan spoke of the 200 families and their dynasties who controlled the Bank of France; and Viviani revived a proposal, made by Proudhon in 1848, that it be nationalized. Periodic suggestions to the same effect were made in Germany, especially when renewals of the Reichsbank charter were under consideration.

Recent studies indicate that traditional notions based on incomplete evidence exaggerate the competence of the banks and the incompetence of governments. As to the competence of the Bank of England, for example, Professor Viner concludes: "...that the evidence available warrants the verdict that during the period from about 1800 to about 1860 the Bank of England almost continuously displayed an inexcusable degree of incompetence and unwillingness to fulfill the requirements which could reasonably be demanded of a central bank." He shows that part of the Napoleonic inflations in Great Britain during the restriction period may be attributed to the commercial discounts of the Bank and that the ready yielding of the Government to the wishes of the Bank that the floating debt be reduced rapidly after the Napoleonic wars added to the deflation. As to the competence of the government, it was the government that forced the Bank to reduce its discount rate in the depression of 1822 and took

the initiative in expanding the circulation in the same year. The Bank came to the rescue of commerce in 1847 - according to its own evidence - only after insistence on the part of the Government.

It is not possible to review in detail the historical evidence on the relative competence of central banks and governments in the field of credit regulation. Despite belief in the principle of bank independence, governments disagreed with central banks occasionally. Typical conflicts between them may be summarized reasonably accurately. Governments usually have been borrowers or, especially in depressions, have favored the cause of borrowers. Central banks typically have been controlled and managed by lenders, or the management has favored the lenders' point of view. Discussion was not carried on at this low level; instead both parties protested an exclusive interest in general welfare. We need not question the motives which, for the most part, were genuine. Conflicts arose when the government insisted that the general welfare demanded an easier credit policy than the bank was disposed to adopt. Broadly speaking, the government's position was appropriate in periods requiring expansion and the bank's position was suitable in periods requiring contraction.

As long as depressions were blamed on God or natural law, it was easy to exonerate the bank of responsibility. And as long as major inflations occurred primarily when the government, especially in times of war, secured funds from the central bank, it was easy also to blame the government. In more recent times when it became agreed that an expansionary credit policy was appropriate in depressions, the record of the government vis-à-vis that of the bank was considerably improved. There is even danger that the pendulum has swung too far in the other direction. I shall return to the problem of the relationship between the two institutions in my concluding remarks.

2. Instruments of policy. The rise and decline of laissez-faire is reflected also in instruments of policy. A century and a quarter ago the major instrument of policy was rationing, both in England and France. In neither country was bank rate policy discussed; in neither was bank rate used systematically - in England before 1839 and in France before 1852; in both countries bank rate remained unchanged for very long periods - in England for 76 years on domestic bills and 49 years on "foreign bills," ending in 1822, in France for 27 years, ending in 1847; in both countries bank rate was subject to usury laws - in England until 1833, in France until 1857.

Now rationing is a completely effective device for limiting the volume of credit to a predetermined maximum. It is not repugnant under certain conditions or to certain philosophies, but it is out of harmony with the tenets of laissez-faire and natural law. It requires judgment and arbitrary criteria to administer, is easily subject to real or fancied abuse, and in general is personal. It was probably more workable in France because the Bank of France discounted many small bills for minor firms than in England where the Bank dealt largely with prime market paper. Despite efforts to impersonalize rationing through devices such as changes in the échéance or maturity of eligible paper, complaints against it persisted. As George Warde Norman put it, the Bank should not arbitrarily and capriciously reject credit "for no other reason than that enough had been discounted already."

In an unconscious effort to adapt their practices to the newer philosophy, central banks groped for an impersonal instrument that would passively reflect the operation of "the natural laws of money." They discovered the rate and demonstrated that it satisfied the requirements. The shift from rationing to the rate did not come overnight. The actions of the Bank of England in the panics of 1825 and 1839 indicate its lack of confidence in an increase in the rate to limit the applications for credit. Bank rate was changed only infrequently in the early years following the initial changes at the Bank of England and at the Bank of France. The experiences in the autumn crisis of 1847 greatly reinforced the case of those who held that increases in bank rate were an effective instrument of limiting the applications for credit. Once the rate was enthroned as the ideal instrument toward the end of the 1850's. It was changed to meet every gust of wind that passed through the economy. Bank of England rate was changed 202 times in the two decades from 1855 to 1874, including 24 changes in the single year 1873; Bank of France rate was changed 58 times in the decade from 1857 to 1866, including 11 times in the year 1864.

Bank rate was adjusted not only to fundamental long-run forces but also to such clearly temporary forces as seasonal changes in currency and reserves. These actions were a reflection of the doctrine of natural law that had been embraced by central bankers. De Germiny explained the many changes in Bank of France rate in 1857 in the following words: "You see here, gentlemen, many changes; but one would have tried in vain to avoid them: the price of money is a fact which one is never permitted to discuss." A touch of envy of his English confreres may be detected in his report of January, 1863: "In England variations in the discount rate always follow those in the reserve. This economic law, verified through long experience, always applied without hesitation, is accepted without complaint by a public whose respect for sane doctrines is traditional." Regent de Waru expressed

the theory of central bank impotence in words that have become classic: "La Banque ne fixe pas le taux de l'intérêt, elle le constate." This theory of the confirmation of natural developments or Konstatierungstheorie, as it became known, satisfied the requirements of laissez-faire, natural law, and the equality of man.

Central banks, however, deviated from it in practice. The Bank of France virtually abandoned it in connection with seasonal variations after the parliamentary inquiry of 1865. Gradually one central bank after another concluded that neither its own status nor market rates reflected consistently the real forces in the economy. Once central banks adjusted their policies to what they considered the real, as opposed to the apparent factors, the foundation for an automatic Konstatierungstheorie crumbled. Central banking policy became in fact deliberative and purposeful. This was not admitted forthrightly. Instead, central bankers said they had merely developed a few minor instruments to make bank rate "effective". Fundamentally, however, automaticity ceases as soon as any element of judgment, however small, is introduced into the argument. In this instance, the minor instruments were developed into the major instrument known as open market operations in modern central banking.

In like manner, central banks, while professing absolute faith in the Simon-pure gold standard, followed various practices to insulate national economies from the rigors of the genuine article. A catalogue of these devices used at one time or place or another would be long and would include: (1) variations in buying and selling prices for gold, (2) loans free of interest to importers of gold, (3) redemption of notes in lightweight coins, (4) redemption in silver, (5) redemption only at the head office, (6) dealings in foreign exchange. A curious lore of mysticism was accumulated to reconcile these blemishes with the automatic gold standard. The devices were evidence of a refusal by the central bankers to abide in day-to-day

operations with the requirements of the theory they professed to accept. Emotions entered the daily operations, and the truth is officials hated to see gold exported and rejoiced when it was imported. None of the devices was quantitatively important enough to offset persistent fundamental disequilibria in balances of payments. At the same time, small as they were, an intellectually honest appraisal must admit they are inconsistent with an automatic system; because frequently they were in fact interferences not facilitating devices. Eventually, indeed, some persons raised a question of far-reaching importance. If a blemished gold standard was preferable to a Simon-pure gold standard, is it possible to construct - out of the blemishes possibly - an international mechanism that is better than either? After all, the extent to which central banks could deviate was limited only by custom and the laws of the land, not by divine or natural laws; and the limits could be extended by the simple expedient of changing the customs or the law.

With World War I and its aftermath there was a shift throughout the world from economic internationalism to highly nationalistic economic policies. Maintenance of international equilibrium gave way to insulation of domestic economies against foreign influences. Innumerable ingenious trade barriers and exchange controls were adapted to implement this economic nationalism. Former influences underlying international relationships gave way to narrow provincial ambitions. Instruments of central banking policy were not at once adapted to the newer objectives. Although an occasional author even before World War I urged central banks to extend their functions from administering a mechanical discount rate policy to exerting an organic control over the money market, the rate remained the prime instrument of control in theory and practice until the 1920's.

During the 1920's the Federal Reserve System developed open market operations not merely as an ancillary tool to make bank rate effective, but as a coequal

instrument of policy, especially to offset the effects of gold movements. The development of a theory of open market operations led to an analysis of the tradition against rediscounting - whose importance as an instrument of central banking policy has, in my opinion, been exaggerated. In the 1930's not discounts but excess reserves, resulting largely from gold imports, occasioned concern. In 1933 and 1935 the System was given a new instrument, power to change reserve requirements, to cope with the problem. This instrument reinforced the powers of the System over member bank reserves, but excess reserves remained large even after requirements had been raised to the maximum permitted by law.

The adoption of active credit policies in the depression was accompanied by formal abandonment of an older "automatic" instrument. The discount provisions (Section 13) of the original Federal Reserve Act were based on the disproved supposition that properly drawn eligibility rules would control credit adequately. The Congress admitted "the great difficulty of defining 'commercial paper'" and left the problem to the Federal Reserve Board. Although the principle of self-liquidation supposedly was clear, the System encountered administrative difficulties in defining eligible origins or uses of funds. In principle, however, it attempted to adapt the automatic system to American conditions including political conditions. Gradually the reserve officials lost faith in the self-liquidating theory, especially as a primary method of extending Reserve Bank credit became the advance, collateralled by Government securities, rather than the rediscount. In its famous Tenth Annual Report the Board wrote: "There are no automatic devices or detectors for determining, when credit is granted by a Federal Reserve Bank in response to a rediscount demand, whether the occasion of the rediscount was an extension of credit by the member bank for nonproductive use." As confidence in the principles of eligibility waned, the rules were made more lenient. Beginning with the program

of the President of October 7, 1931, the depression delivered a series of blows which marked the end of eligibility as a control device. At first amendments were passed to meet particular conditions. The Banking Act of 1935, however, contained a provision that abandoned the old theory in principle, by providing that "any Federal Reserve Bank may make advances to any member bank on its time or demand notes which are secured to the satisfaction of such Federal Reserve Bank." The Board of Governors stated that the new principles "mark a definite recognition of the fact that the lending function of the Federal Reserve Banks is not automatic but is an instrumentality of the System's general credit policy."

In 1938 the Board of Governors discussed the possibility of creating an instrument of policy out of its supervisory activities and formally raised the question: "Can the examination policy of the several Federal supervisory agencies be further coordinated to promote the effective functioning of the entire banking system, making it a force toward increased national economic stability?" The national supervisory agencies agreed to a common procedure in bank examination, but it is not clear from the published reports that supervisory policies have been uniformly integrated into general credit policy.

To facilitate the adjustment of the money market to changing conditions, technical modifications were introduced in 1942 in the procedure of extending Reserve Bank credit. The Reserve Banks, in conformity with directions from the Federal Open Market Committee, announced their readiness to purchase Treasury bills at a rate of 3/8 per cent per annum and later granted a repurchase option at the same rate. This device was preferred to open market operations because it provides funds where they are most needed; it also avoids the tradition against rediscounting. It is used to provide reserves, and together with open market operations enables the System to maintain satisfactory conditions in the Government

security market.

In the past decade the Reserve System has been directed to employ instruments outside commercial banking and organized money markets. I shall mention these only briefly at this point and shall discuss them in the summary. In the first place, Reserve Banks have been authorized under certain circumstances to make working capital loans to established industrial or commercial businesses. In the second place, the Reserve System has been designated to administer two instruments of selective credit control - regulation of security loans and of consumer credit - which establish certain credit terms under which third parties may enter contracts.

In summary, the most important development in instruments of policy is the fundamental shift from faith in automatic laws to dependence upon human judgment. As a consequence, (1) central banks are being empowered to administer and to adapt as instruments of policy elements once rigidly enacted as law, (2) the sphere of influence is being enlarged from dealings with member banks and the open market to a much wider field of credit operations, and (3) the mechanics of operation and supervision are being adapted as instruments of policy.

II. Periodic Movements

The two major drifts - toward laissez-faire until roughly the middle of the last century and away from it since - have been accelerated or retarded periodically by major changes in political or economic conditions.

In major wars the government of the day in the belligerent countries has had its way with the central bank, and usually the government has secured funds directly or indirectly from the central bank. Funds have not always been granted willingly, but they have been granted. Instruments of policy have been adjusted to the desires of the Treasury.

Major wars customarily have been accompanied by inflation of varying but considerable intensity. Sooner or later they have been followed by demands for the establishment or restoration of independent central banks. One need only recall the heated discussions and numerous resolutions following World War I to illustrate the point. The same basic arguments were advanced in both France and England after the Napoleonic Wars. Governments have dictated to the Bank also in matters involving foreign policy or in times of great national crises, such as revolutions. The willingness of the Bank to make concessions and the abilities of the government's representatives were not uniform, but strong governments have had their way.

Governments have secured concessions from central banks, have themselves performed central banking functions, or have endowed other institutions with them in periods of severe depression. Experience during the Great Depression illustrates this point, but experiences during earlier ones are equally convincing.

III. Unpredictable Factors

The policy of a central bank at a moment of time reflects the balance of power among individuals and agencies who influence it, primarily the top management. At most central banks the executive personnel as a whole is a continuing group composed of persons who individually serve long terms. Policy is determined usually by experienced members who have acquired power and prestige. Honor of membership in the select circle rather than influence is the greatest reward of new members. By the time they in turn have gained power with maturity they have absorbed the cautious wisdom of their predecessors at the expense of their zest for innovation. Furthermore, until recently, new members have been chosen from the same general social stratum - in some countries indeed from the same firms or families - and have held the same - creditor - views as their predecessors. This continuity is one

of the prime factors in explaining why fundamental changes in social philosophy are slow in affecting central bank policies.

Occasionally, however, when the policies of a central bank are too far out of line with what is expected of the bank, its personnel is changed, sometimes with a change in the law, sometimes without. Illustrations are the changes in the Federal Reserve System beginning about 1934, in the Bank of France in 1936, and in the Reichsbank, beginning with the advent of Hitler.

Occasionally continuity is broken also by what Bagehot, in another connection, called "a change of generation." Such changes are non-deliberative and occur when a considerable proportion of influential individuals who have resisted new ideas just happen - because of death, retirement, etc., - to leave office at the same time or nearly at the same time. The best illustration I have been able to find is the case of the Bank of France in the 1850's. The Bank entered that decade a staid, stolid, tradition-bound, one might almost say, moribund institution. Within 5 years half of the top management was new; and almost overnight - as history reckons time - its policy was revolutionized. The new management developed new policies based on laissez-faire, shifting in instruments from rationing to changes in the rate. At times opposing forces striving for power are so delicately balanced that policy itself vacillates as first one and then another group gains the decision. Tooke describes such an instance at the Bank of England in 1836-1837. Finally, a single individual may dominate a central bank so completely that the history of the institution for a period can be written accurately only with reference to that individual's life. Montagu Norman, Hjalmar Schact, and Benjamin Strong are well-known examples.

To hold the balance true between tradition and innovation is one of the eternal problems.

IV. Problems of the Future.

From a mountaintop one may gain a sense of direction and notice the undulations in the path over which his party has come. He may gain also a perspective of goals and major obstacles in the way. After viewing the broad panorama an active participant must descend again into the valley. In blazing new trails he will keep the objectives in mind, but his path will be neither direct nor the most efficient. Obstacles that did not appear from the mountaintop and that may not be visible from the goal may seem insuperable in the valley. Some members of the party may well remain on the mountain to call directions to the passing caravan. But if the party is to progress, actual paths must be constructed and those who wield the axes will rely on their accumulated woodcraft as well as listen to the calls from on high. Both are needed to guide society on its great adventure.

In the remainder of this address I shall report the obstacles and methods of meeting them as they appear to one woodman who has descended into the valley. I shall mention only incidentally the great obstacles that already have been thoroughly discussed by those on the mountain. The purpose is to provoke discussion not to end it.

Central banks must adjust themselves to changes in environment, including those in fundamental human ambitions, desires, and expectations. Anticipation of Federal Reserve problems, therefore, should be based on analyses of the objectives the System may be expected to achieve, the conditions under which they may be expected to operate, and the instruments available.

Objectives with widespread support include maintenance of real national income at a high level, prevention of inflation, maintenance of satisfactory conditions in the Government bond market, and participation in world rehabilitation. The war has retaught most of us that such comprehensive objectives can be achieved only through the utilization of many material and spiritual forces. Central banks are not magicians and cannot achieve them alone. I think we must expect that many will again forget this lesson as insistent and impatient demands are made for immediate results. Many false prophets will rise, saying, "Here is the solution" or "There is the solution." And there will be neither flaw in the logic of some of these prophets - except relevancy to the real world - nor lack of cogency in their rhetoric.

Development of policies to maintain real national income at a high level unquestionably is important; but it has held the center of the stage so long that I can add little to the discussion, except to say that removal of some of the limitations on loans under Section 13(b) might be helpful. The Federal Reserve should not compete with other agencies in this field. At the same time, resources should not remain idle for the sole reason that funds are not available. Experience with 13(b) loans generally has been good. A wider field of usefulness could be opened by removing the requirements that such loans be made only to established businesses, for working capital purposes, and not in excess of five years. After the war, however, we may be faced, as we have been after other wars, with inflationary developments. As will be-

shown, this will not be the only problem, but it may be desirable to analyze whether existing instruments are suitable to curb such developments.

The chain that joins open market operations, bank rate, bill policy, and reserve requirements with the volume of expenditures consists of several links. Use of the instruments affects total reserves, excess reserves, or both. Excess reserves condition but do not determine changes in the money supply. The supply of money influences but does not determine the flow of money through the economy. General instruments are most effective when this chain is taut. Policies adapted first to the depression and then to war finance, however, have slackened the chain, injecting play at each link.

The question of adequacy relates to the extent of power relative to the job to be accomplished. Power may be measured by the ability of the Reserve System to absorb reserves. At the end of last year the System could have absorbed a billion dollars by increasing reserve requirements to the legal maximum. Assuming it were willing to dispose of all its earning assets, it could have absorbed $12 billion more - a total of $13 billion. To this sum should be added any reduction that may occur in gold stock. The size of the job is indicated by the amount of reserves that might have to be absorbed. This factor cannot be measured directly, but its general order of magnitude may be indicated. On December 31, 1943, member banks held a billion dollars of excess reserves. In addition, they held $11½ billion of required reserves and there was $20½ billion of currency in circulation. If one makes reasonable assumptions as to the minimum to which these items may be reduced, it may appear offhand that existing general instruments are adequate, although in the absence of knowledge as to our possible international commitments, we cannot be sure.

Viewed as a practical rather than technical matter, the economy has another means of producing reserves. A very large and rapidly increasing volume of Government

securities either is redeemable virtually on demand or matures very shortly. Existing general instruments of central banking policy would prove wholly inadequate to offset the possible effects on reserves that would result from the exercise by the owners of their right to redeem or not replace maturities. Removal of limitations on control over member bank reserves, however, would increase central banking powers adequately for the purpose.

Extent of power relative to the size of the task to be performed is not the only aspect of the problem. Another phase is the willingness or desirability of exercising the powers. This is a matter of policy. The decision would be based upon an analysis of the entire situation. It would be important to know the source of the reserves. If they came from a return flow of currency, for example, traditional instruments could be employed, especially in view of the maturity distribution of the System's portfolio. If, however, they came from disposal of Government securities by owners who wished to spend the proceeds, use of traditional instruments might interfere with the maintenance of satisfactory conditions in the Government bond market.

It has been argued with cogency that high levels of productive employment would produce savings in such volume that one needn't be concerned about the future of the Government bond market. On the other hand, many doubt the ability of the authorities to support that market when commodity prices are rising and there is comparatively full employment, without aggravating inflation. Experiences during the first year and a half after the First World War indicate that we should be prepared for such developments.

The devastating repercussions of either inflation or a severe break in Government bond prices makes imperative a search for techniques to achieve both. The remainder of my remarks will be devoted to introducing some of the alternatives. A scarcity of funds in the Government bond market and a plethora of funds elsewhere

could, of course, be "remedied" by restricting - through rationing, priorities, and direct controls - the uses to which "outside" funds could be put. All such controls should not be removed with the end of the war, but as a permanent matter this remedy is worse than the disease it purports to cure. This discarded alternative, however, indicates the nature of the problem. What is needed is an instrument or combination of instruments the net effect of whose operation is to absorb funds elsewhere but not from the Government bond market - in short, an appropriate technique of selective credit control. If money were completely fluid in and among all markets, no such technique could be devised.

We have evidence, however, that money is far from fluid. For example, the easy money conditions of the 1930's resulted in the interest rate structure with which we are all familiar. We are now confronted with resolving the inconsistency inherent in maintaining that structure and at the same time maintaining the element of uncertainty that the structure presupposes. Other evidences of lack of fluidity are the volume and distribution of excess reserves during the past decade and the widely varying sensitivity of particular interest rates to excess reserves. #The viscosity of money offers hope that techniques can be devised to exert different degrees of pressure in selected areas. Furthermore, the degree of viscosity may itself be modified - as it has been through limitations on the acquisition and disposition of certain issues of Government securities. What instruments are available to the Reserve authorities to devise such a technique? They are the conditions under which the System will extend credit at the initiative of the market, operations in the open market, changes in reserve requirements, and the so-called selective instruments: regulation of security loans and of consumer credit. The first two, which are usually described as general instruments, are in fact also selective at the present time because they operate almost exclusively through Government securities. For this reason

they are not ideal as restrictive instruments but are suited to give needed support to the Government securities market. The posted bill rate makes funds available where they are most needed without encountering a tradition against rediscounting. Open market operations permit maintenance of desired relationships among different issues and are adaptable to counteracting stresses and strains in the central money markets where such operations are executed.

Changes in reserve requirements ease or increase general pressure. To be sure, part of the general pressure could be absorbed through reduction in excess reserves and a still larger part through disposal of Government securities by member banks, but a part also would tend to force reductions in other earning assets. Increases in reserve requirements to exert general pressure combined with discount policy, bill policy, and open market operations to relieve the pressure in the Government securities market, though apparently contradictory, may instead - as the Federal Open Market Committee pointed out in April 1937 - be complementary. Existing limits on the power of the Board of Governors over reserve requirements would, of course, have to be altered or removed to carry out such a program.

The responsibility imposed on the System to regulate consumer credit could be adapted to this program without difficulty. The technique of such regulation might be modified. For example, it would be in keeping with the history of earlier instruments if Regulation W developed away from control over individual transactions toward over-all regulation of the volume of such credit in particular fields. I am not sufficiently familiar with the technical or administrative aspects to know how this could be done practically. The nature of the distinction, however, may be illustrated. Instead of setting terms for individual contracts, it might be possible to devise a technique - I mention minimum collection ratios to illustrate the point, although I am told that they are not administratively feasible - to obtain adequate

control. The chief purpose of such a method is that it would permit greater freedom in individual transactions and yet achieve the objective of regulating the volume of the particular type of credit. It might prove desirable also to establish different requirements in various parts of the country.

The concept of selective credit control as contrasted with purely quantitative or traditional qualitative controls arose out of experiences in the depression when efforts of the Reserve System to stimulate activity through easy money policies were dissipated largely in excess reserves. Since pump-priming expenditures injected funds directly into the national income stream at various levels, some concluded hastily that central banking instruments had lost their potency permanently.

The developments I have described suggest the possibility that we could be confronted with conditions in which central banking instruments, far from being impotent, would be too powerful to be used alone. Under such circumstances a reversal of pump-priming could be allied with central banking policy.

Such an adaptation would be directed to taxing and borrowing from the segments of the economy that are getting out of hand sums sufficient in amount to halt inflationary developments. The difference between funds taken in and those paid out would be sterilized, for example, by deposit in the Treasury account at the Federal Reserve Banks or by retirement of Government securities held by Federal Reserve Banks.

This analysis raises again the question of the relationship between the Government and the central banking system. There is no easy, clear-cut answer. I believe, however, that a shift in emphasis from rights, sovereignty, and independence to duties and responsibilities would aid in establishing relationships between the two institutions appropriate to existing conditions. Government is or should be responsible to the electorate for dealing with social or economic problems. The central bank is responsible for the administration of broad monetary and credit policies. It is

obliged to present its monetary point of view with courage. Its powers must be exercised in the public interest. Its strength must derive from demonstrated competence. The bank may be forced to yield if the administration in power loses confidence in it for whatever reason; but the electorate, not the administration, must have the final say in a democracy.