Keynes and Central Banking

Author(s): ANAND G. CHANDAVARKAR

Source: *Indian Economic Review*, July-December 1985, New Series, Vol. 20, No. 2 (July-December 1985), pp. 283-297

Published by: Department of Economics, Delhi School of Economics, University of Delhi; Springer

Stable URL: http://www.jstor.com/stable/29793427

Indian Economic Review, Vol. XX, No. 2

Keynes and Central Banking

ANAND G. CHANDAVARKAR*
International Monetary Fund, Washington, D.C.

I

Keynes's many-sided contributions to economic thought and policy have been exhaustively reviewed but his contributions to the theory and practice of central banking have hardly received any attention in the literature.[1] This paper attempts to fill this gap by a review and appraisal of Keynes's ideas and activities in the sphere of central banking under the following categories : (II) the rationale of central banking; (III) the instruments of central banking; (IV) the Bank of England; (V) inter-central bank cooperation; and (VI) an overall appraisal.

II. Rationale of Central Banking

Keynes based the rationale of a central bank not only on its regulatory functions, i.e., as the controller of the monetary system, but even more on its developmental role as an agency to promote financial intermediation in an emergent economy. Long before the recommendation of the Brussels Conference of 1920 for establishing a central bank in countries where there is no central bank, Keynes had presented the most datailed schemes for establishing a central bank in India although it was still a

*The author is Advisor, Treasurer's Department, International Monetary Fund, Washington, D.C. but this article is contributed in a personal capacity. He wishes to thank an anonymous referee for helpful suggestions.

[1]Cf. R. F. Harrod, *The Life of John Maynard Keynes*, Macmillan, London, 1951; the series of Keynes Seminars organized by the University of Kent in the seventies as also the following symposia, *Keynes : Aspects of the Man and His Work*, edited by D. E. Moggridge, St. Martins Press, New York, 1974; *Essays on John Maynard Keynes*, edited by Milo Keynes, Cambridge University Press, London, 1975; Robert Skidelsky, *John Maynard Keynes* (Hopes Betrayed, 1883-1920), Vol. I, Macmillan, London, 1983; the Keynes centennial essays by Milton Friedman, F. A. Hayek, Sir John Hicks, and Paul Samuelson in *The Economist* (London) June (4, 11, 18, 25) 1983; *Keynes and the Modern World* (Proceedings of the Keynes Centennary Conference) (Ed) David Worswick and James Trevithick, Cambridge University Press, 1983, Cambridge, July 1983.

British dependency. This is particularly noteworthy considering that half-a-century later it was still being debated "whether a central bank should be established in every independent political unit is very much an open question."[2] Keynes, very significantly, noted that successive proposals for a state bank in India were so often "smothered in the magnificent and empty maxims of political wisdom", which clearly implied that there were no valid economic arguments against the creation of a central bank. Initially, Keynes argued the case for a state bank for India on the grounds that the divorce between the responsibility for the note issue and that for banking generally lead to the keeping of two separate reserves, the government's and the bankers', and the reserves of the latter were insufficient without the assumption of responsibility by the former. This dual reserve system created rigidity in the note issue. The absence of a state bank also made it difficult for the government to centralize its cash balances to the best advantage and also deprived it of a source of continuous financial advice and experience—always a valuable argument for a new central bank. It could not also prudently place all its free reserves in a private institution.

Keynes in this "Memorandum on Proposals for the Establishment of a State Bank in India" (October 6, 1913) to the Royal (Chamberlain) Commission on Indian Currency and Finance[3] rejected the Bank of England as an unsuitable model for India because, being essentially a product of history, it had a strictly conventional role as the Government's banker, bank of issue, and a lender of last resort operating through just two departments of Issue and Banking respectively.[4] Instead, he commended the examples of the European states banks, which were based on conscious design, had more flexible currency issue systems than the Bank of England, and developmental objectives, such as the provision of direct credit and rediscount facilities to promote industry and agriculture. The state banks of Germany and Russia had several novel features which were missing in the Bank of England but which were thought more appropriate to Indian conditions and requirements. For instance, the German Reichsbank was authorized to exceed the statutory limit of

[2]Are "Central Banks Universally Necessary?" in R. S. Sayers, *Central Banking after Bagehot*, Oxford, Clarendon Press, 1957, p. 108.

[3]*The Collected Writings of John Maynard Keynes*, Vol. XV, Activities 1906-14, India and Cambridge, edited by Elizabeth Johnson, Macmillan, London, 1971, pp. 151-219.

[4]Keynes exhorted "the framers of the new bank's constitution" to "put far from their minds all thoughts of the Bank of England." "It is in the state banks of Europe, especially in that of Germany, or in those perhaps of Holland or Russia that the proper model is to be found." *The Collected Writings of John Maynard Keynes*, Vol. I, Indian Currency and Finance, Macmillan, London, 1971, p. 168.

note issue without metallic backing, upon the payment of a tax at the rate of 5 percent per year on the excess. This rule proved helpful in averting monetary stringency of the type experienced in England under the Bank Act of 1844, while keeping the monetary circulation within the limits set by the needs of business. The Reichsbank had facilities for quick transfers of deposits at no charge from any one of its 486 branches to another branch without recourse to cheques or clearing systems. Thereby it economised the use of specie which fell from 39.5 percent of total monetary circulation (1876) to 16.8 percent (1900). Similarly, the revised statute of the Bank of Russia (1894) provided for direct financing of industry, commerce and agriculture by authorizing it to extend credit up to three years and to make loans against bills secured by hypothecation or guarantee, or any other securities deemed adequate by the Minister of Finance. Its rediscount facilities (up to eight months) for commercial paper were extended to private banks on loans on securities which were not acceptable directly by the State Bank with the risk being divided between the two institutions.

Keynes's memorandum covered the proposed State Bank's constitution, capitalization, and functions such as management of note issue, government balances, public debt, and centralization of reserves. It had several novel features which went beyond those of the European State Banks. First, there was the emphasis on professional management insulated from political interference and on discretionary monetary policy as against fixed rules, a stance eminently in consonance with the modern concept that "the essence of central banking is discretionary control of the monetary system."[5] Secondly, Keynes stressed the primacy of the promotional role of a central bank in an under-banked country like India.[6] His agenda for the proposed State Bank of India (*c* 1913) stated that it should open branches as rapidly as possible at most places with a district treasury without however, jeopardizing the Bank's profitability. His proposals, therefore, aimed at a virtually guaranteed dividend to shareholders, which he thought was both just and politic. Keynes was also innovative in advocating appropriate rediscount facilities to Indian banking on the most desirable lines of European experience. But he deprecated any notion of direct competition of the State Bank with exchange banks in attracting deposits in London or in the trade remittance business. Subsequently, in his evidence to the Royal Commission

[5]R. S. Sayers, *op. cit.*, p. 1.

[6]As Sayers remarks, in the early days of a central bank the emphasis "must be on the development of a banking system to control. This is not only a logical order; it is also the historical order of events in the underdeveloped country I have most studied ; the England of earlier centuries . . ." *ibid.*, p. 115.

(Hilton Young) on Indian Currency and Finance (1926) Keynes reaffirmed the role of a central bank in developing commercial banking.[7]

Keynes was, however, equally conscious of the need to regulate commercial banks in India many of which suffered from under-capitalization, mismanagement, and conduct of non-banking activities. He was concerned that although the growth of banking in India was of utmost importance "a startling series of failures will do much to retard it."[8] He was thus cognizant of the prudential aspects of central banking when it hardly figured in public policy. It is, however, a revealing commentary on the time-lag between ideas and implementation in India's monetary history that it was not until late in the 1940s that the Reserve Bank of India established Departments of Banking Inspection and Development and not until the sixties and seventies that the State Bank of India (the former Imperial Bank) and the nationalized commercial banks embarked on a planned expansion of branches in under-banked areas.

For all his innovativeness in other respects, Keynes was surprisingly conventional on the disposal of central bank profits.[9] Commenting on the State Bank Memorandum (1913) of Lionel Abrahams (Financial Secretary and later Under-Secretary of State for India) Keynes argued that it would not be easy to determine the net profits of the note issue and thought that the shareholders should have the profits up to a certain percentage, with the surplus being divided between them and the Government, subject to decennial revision. Keynes's own scheme for a State Bank for India provided for a division of the annual net profits after due allowance for depreciation and preference dividends (if any), between shareholders, reserves and the government. But the scheme did not address the policy issue of a productive use of currency profits.[10] Thus even Keynes was no exception to the supposition that the analysis of central bank profits has hardly evoked any attention from economists, or practicing central

[7]"(Sir Henry Strakosch) would you not rather say that a central bank would be helpful in expanding the commercial banking organization? Yes, I should (Keynes)," *The Collected Writings of John Maynard Keynes*, Vol. XIX, Activities 1922-29, The Return to Gold and Industrial Policy, Parr II, Edited by Donald Moggridge, Macmillan, London, 1981, p. 524.

[8]*The Collected Writings*, Vol. I, *op. cit.*, p. 159.

[9]"With regard to the profits of coinage, the Government have announced that they will divert half of the future profits to capital expenditure on railways. But it is to be hoped that this decision will be reconsidered before the time comes." "Recent Developments of the Indian Currency Question", *Collected Writings*, Vol. XV, p. 275.

[10]"What is the good of an economical currency if the fruits of economy are to be put in a sarcophagus? The economic error of India tends to be to hoard wealth instead of using it." Abrahams to Keynes, Vol. XV, *ibid.*, p. 215.

bankers.[11] Keynes, however, was positive that even a privately-owned central bank like the then Bank of England "should feel quite free not to be influenced in the slightest degree by the necessity of earning a given income,"[12] in discharging its monetary policy obligations. But Keynes also recognized that the Bank of England's freedom from political pressure, like that of any other central bank, does not depend on the mere fact that it has private shareholders.

III. Instruments of Central Banking Policy

Keynes's ideas on this aspect of central banking, which are contained in his evidence to the Macmillan Committee, and more systematically developed in his "Treatise on Money", may be analyzed in terms of the three basic instruments : (*a*) The bank rate; (*b*) open-market policy; and (*c*) variation of reserve requirements.

(*a*) *The Bank Rate and Credit Rationing*

Keynes gave possibly the first systematic exposition of the mechanics of the bank rate as the official published rate of a central bank.[13] Keynes was perhaps original only in his attempt to link the Bank Rate of the quantity equation since his Bank Rate doctrine was largely derived from the Cunliffe Committee in Britain (1919). In a free loan market, Keynes argued, a given level of bank rate, must be uniquely correlated, if it is to be effective, with a given quantity of money. However, Keynes' quantity equations were subsequently left out of his theoretical system.

Keynes's real originality lay in formulating the concept of "the fringe of unsatisfied borrowers", i.e., "who are not considered to have first

[11]Even the standard work of M. H. de Kock on *Central Banking* (Fourth Edition) St. Martin's Press, New York, 1974, has only a brief descriptive subsection on "Distribution of Profits", pp. 307-9.

[12]*Collected Writings of John Maynard Keynes*, Activities 1929-31 : Rethinking Employment and Unemployment, edited by Donald Moggridge, Macmillan, London, 1981, Vol. XX, p. 244.

[13]"No systematic treatment of the subject exists in the English language. You will see in vain the works of Marshall, Pigou, Taussig or Irving Fisher. Even Cassel's treatment, which is somewhat fuller, does not examine the train of causation in any detail. Mr. Hawtrey has a little more to say : but he is somewhat unorthodox on this matter, and cannot be quoted as an exponent of the accepted doctrine. There remains one outstanding attempt at a systematic treatment, namely, Knut Wicksell's Geldzins und Guterpreise, published in German in 1898. . . Wicksell's theory is closely akin. . to the theory of the treatise, though he was not successful. . in linking up his theory of bank rate to the quantity equation." *The Collected Writings of John Maynard Keynes*, Vol. V, "A Treatise on Money." The Pure Theory of Money, Macmillan, London, 1971, pp. 166-67.

claims on a bank's funds, but to whom the bank would be quite ready to lend if it were to find itself in a position to lend more."[14] This leads to the rationing of credit because the demand for credit exceeds its supply at the ruling rate of interest. The amount of bank credit to any borrower is governed not solely by the the rate of interest but also by the purpose of borrowing, collateral and his general credit rating. The existence of this unsatisfied fringe, and of the variability in the standards of credit eligibility, enables banks to influence demand for credit through changes other than the rate of interest. Consequently, this imposes a constraint on the efficacy of bank rate policies. But Keynes noted that credit rationing cannot be continued beyond the point at which the unsatisfied fringe begins to include borrowers so influential that they can circumvent bank constraints by issuing bills of first-class quality or by borrowing direct from the banks' depositors.

Keynes' concept of the fringe of unsatisfied borrowers could be rightly regarded as the genesis of subsequent discussions of credit rationing in the loan market.[15] The concept of credit rationing explains the varied behaviour of the loan market, ranging from (at the macroeconomic level) how credit policy can influence the economy even if demand for money is relatively interest-inelastic, to sectoral issues such as urban bias in credit allocation and the denial of credit to weaker sectors. Generally, most models attempt to specify a set of sufficient conditions for credit rationing to occur. But there is no unique set of necessary or sufficient conditions for credit rationing. Although Keynes did not formalize credit rationing in a model, his concept is eclectic enough to include both its quantitative and qualitative aspects, which have been analyzed in subsequent discussions. The basic conclusion, as first noted by Keynes and confirmed by subsequent discussions, is that even in the absence of interest rate ceilings and oligopoly the interest rate does not clear the loan market because of lenders' reliance on non-interest rate criteria such

[14] *The Collected Writings of John Maynard Keynes,* Vol. VI, A Treatise on Money. The Applied Theory of Money, Macmillan, 1971, London, pp. 326-27.

[15] Cf. Hodgman, Donald R., "Credit Risk and Credit Rationing," *The Quarterly Journal of Economics*, Vol. 74, No. 2, May 1960; Kane, Edward J. and Malkiel, Burton A., "Bank Portfolio Allocation, Deposit Variability, and the Availability Doctrine," *The Quarterly Journal of Economics*, Vol. 79, No. 1, February 1965; Jaffee, D. M. and Thomas Russell, "Imperfect Information, Uncertainty, and Credit Rationing" *The Quarterly Journal of Economics*, Vol. 90, No. 4, November 1976; Baltensperger, Ernest, "Credit Rationing: Issues and Questions," *Journal of Money, Credit and Banking*, Vol. 10, No. 2, May 1978; Stiglitz, J. and Weiss, Andrew "Credit Rationing in Markets with Imperfect Information," *American Economic Review*, Vol. 71, No. 3, June 1981; "Imperfect Information, Uncertainty and Credit Rationing" by Kerry D. Vandell, James D. Hess, Dwight M. Jaffee and Thomas Russell in *The Quarterly Journal of Economics*, Vol. 119, No. 4, November 1984, pp. 841-72.

as collateral, the purpose of borrowing, borrowers equity, and central bank directives. Thus the rationing of credit determines the availability of credit as distinct from its cost (i.e., rates of interest).

(*b*) *Open Market Policy*

Keynes defined "open-market policy," as action to vary the amount of a central bank's investments (other than gold) through purchases and sales on it own initiative rather than that of its customers.[16] The exclusion of gold could be explained by the fact that operations in gold were not strictly of the nature of conventional open-market operations.[17]

Keynes's analysis of open-market policy in the British and the U.S. systems showed that the genesis of open-market operations by the U.S. Federal Reserve (c. 1922) was not so much the control of member banks' behaviour, as in England, but the prevention of any further decline in the earning assets of the Reserve Banks. He demonstrated that open-market policy and bank-rate have different but reinforcing effects. Changes in bank rate may affect of central bank advances as an uncertain incidental result of a much wider complex of consequences which a change in bank rate initiates whereas open market operations have a direct and immediate impact on bank reserves and hence on credit. Bank rate changes primarily affect the short-term rate of interest, whereas open market operations can also influence the long-term rate of interest if the central bank also operates in long-dated securities. Consequently, Keynes regarded the bank rate as more suitable for use to preserve international equilibrium, while open market operations were more effective in influencing investment. Keynes also noted the asymmetry in the relative efficacy of purchases and sales of government securities by the Bank of England. The direct effect of an increase in the reserves of banks as a result of purchases of securities by the Bank of England was a corresponding increase in their credit. But the banks may be able to increase their credit without a significant reduction in the rates of interest charged. The efficacy of the sale of securities in decreasing bank reserves was also likely to be equally unqualified so long as market rates were below bank rate. But if the banks' resistance to credit restriction caused market rates to approach bank rate, it could offset the open market sales by increased discounting by the money market, which cannot be checked except by raising the

[16]See *The Collected Writings*, Vol. VI, pp. 202.

[17]"The amount of gold is in a 'convertible' international system, one stage further removed from its control; for, directly, it depends on whether the nationals' claims on other banking systems exceed or fall short of foreign claims on them." *Ibid.*, p. 202.

bank rate.[18]

Keynes believed that a central bank should not hesitate to carry its open market operations to the point of saturation. Therefore their efficacy depends on the central bank always having an adequate stock of securities. While Keynes also recognized the constraints on such a policy because of "insufficient ammunition" in a central bank's port-folio, he did not conceive of the possibility of a central bank issuing its own securities independently of the government on the lines of the provision in the statutes of several post World War II central banks (e.g., Ceylon, Philippines). Keynes also argued that it may not be possible to equalize the market and the natural rates of long-term interest unless the central bank is required to purchase bonds up to a price far beyond the long-period norm. But these purchases may, if they have to be reversed later by sales, show a serious financial loss.[19] Subsequently, Keynes advocated the extension of open market operations to all maturities as the most important improvement which could be made in the technique of monetary management. He recognized that "owing to the unwillingness of most monetary authorities to deal boldly in debts of long term, there has not been much opportunity for a test,"[20] but he did not analyze the reasons for the reluctance of central banks to deal in long-term securities. The main justification is that trading in short-term securities is the most active and continuous, and consequently this sector is the most sensitive and effective channel for the conduct of open-market operations. This was the rationale underlying the "bills preferably" doctrine of the U.S. Federal Reserve for a longtime.

(c) *Variation of Reserve Ratios of Commercial Banks*

The apprehension of insufficient securities with central banks led Keynes to investigate the potentiality of an alternative technique, namely, the

[18] "A considerable part of the value of open-market operations delicately handled may be in its tacit influence on the member banks to move a step in the desired direction . . . a progressive series of small inflationary open-market purchases . . . are potently, and almost invariably, effective in inducing the member banks to follow suit." *Collected Writings*, Vol VI, pp. 227-228.

[19] "But the choice may conceivably be between assuming the burden of a prospective loss, allowing the slump to continue, and socialistic action by which some official body steps into the shoes which the entrepreneurs are too cold to occupy." *Collected Writings*, Vol. VI, pp. 332-35. This last possibility is an uncanny anticipation of the widespread contemporary tendency toward socialization of private risks through official bailouts of troubled industrial and financial units in the U. S. A. and Europe.

[20] *The Collected Writings of John Maynard Keynes*, Vol. VII, The General Theory of Employment, Interest and Money (1936), Macmillan, London, 1971, p. 207.

power to vary with due notice and by small degrees the proportion of legal reserves of commercial banks.[21] Keynes thought that such a provision should be added to "the powers of the ideal central bank of the future" because the variation in reserve proportions of banks puts on them the most direct possible pressure to move in the desired direction.[22] Keynes proposed that the Bank of England should have the power to vary the 30-day notice cash ratios of banks (based on daily averages over monthly periods), between 10 and 20 percent against demand deposits and between 0 and 6 per cent against time deposits. Curiously, despite his familiarity with the German economy, Keynes never referred to an important variant of the reserve ratio technique of "Einlagenpolitik," used in Germany, namely, the shifting of government balances from the central bank to the commercial banks and vice versa, so as to achieve the same effects on bank liquidity as the direct variation of reserve ratios. There is only a bare reference in Keynes's works to the efficacy of moral suasion by the central bank as a supplement to formal instruments of credit policy.[23]

IV. Keynes and the Bank of England

Keynes was a Director of the Bank of England from 1941 till his death in 1946. Having been one of the foremost critics of the Bank in the inter-war years, his appointment to the Court of the Bank to fill the vacancy caused by the death of Lord Stamp, the only economist on the Court, "created quite a stir."[24] In keeping with the tradition whereby new Directors served on the Staff Committee, Keynes concerned himself with service conditions of the junior staff and the investment policy of the superannuation fund, and also closely scrutinized the implementation of policy decisions. But in assessing Keynes' modest role as a Director of the Bank of England it has to be borne in mind that a Director as such

[21]*The Collected Writings*, Vol. VI, pp. 232-233.

[22]"In Germany the reserve ratios are much lower and more variable, whith te result that the Reichsbank's control over its member banks' credit policy is far less secure." *The Collected Writings of John Maynard Keynes*, Economic Articles and Correspondence: Academic, Vol. XI, edited by donald Moggridge, Macmillan, London, 1983, p. 426. For a contemporary evaluation, see A. G. Chandavarkar, "Government Balances as a Monetary Policy Instrument in the Less Developed Countries" *The Economic and Political Weekly*, Vol. VII, No. 35, August 26, 1972.

[23]"There are . . . various other methods of action which are theoretically open to the central bank. In practice, however, the central bank of today—apart from psychological pressure, veiled in the case of the Bank of England, open in the case of the Federal Reserve Bank, by advice, exhortations or threats—has limited itself to these two, namely 'open-market policy' and 'bank rate'. *Collected Writings*, Vol. VI, *op cit.*, p. 203.

[25]R. F. Harrod, *op. cit.*, p. 517.

played little part in those days in shaping Bank policy, which was done mainly by the staff, and by one or two Directors. More importantly, the war had put most normal issues of central banking policy in abeyance, and Keynes was more preoccupied as an Adviser to the Chancellor of the Exchequer, especially on Bretton Woods and the 1945 American Loan. In a war economy economic debate is rightly subordinated to the needs of pragmatic consensus and immediate action, which was reflected most notably in the "wondrous alliance of Norman [Governor of the Bank of England] and Keynes, unthinkable 10 or 15 years earlier" and the commonality of "attitudes on exchange control between Keynes and the Bank."[25]

However, Keynes's most perceptive observations on the Bank of England predated his service as Director of the Bank. Thus he was always mindful of the vital distinction between the fleeting policies of Governors and the Bank as an institution. But he never articulated his views on the role of the Court of the Bank except for endorsement of Walter Bagehot's remarks that "The directors of the Bank of England are neither acquainted with right principles, nor were they protected by judicious routines."[26] He also echoed Bagehot's sentiment that "the directors were self-elected from amongst the younger members of a limited range of old established firms, none of them professional bankers.[27] But he recognized the compensating advantages of the prevailing traditions insofar as "steady merchants collected in council are an admirable judge of bills and securities." Even more pertinent is his citation of Bagehot's perceptive analysis of the hypersensitivity of Bank Directors to public criticism and the disadvantages of such an attitude.[28]

Keynes, in his evidence to the Macmillan Committee, suggested the amalgamation of the Issue and Banking Department so that the Bank could have unfettered control over all its assets, with the sole objective of prudent monetary management without having to earn revenue for the Treasury.[29] Although this radical suggestion was not accepted, it was

[25] R. S. Sayers, *Bank of England*, 1891-1944, Vol. 2, Cambridge University Press, Cambridge, 1976, *ibid.*, p. 591.

[26] Review of Reginald McKenna's "The Post-War Banking Policy", *Collected Writings of John Maynard Keynes*, Vol. XIX, Part II. Activities 1922-29, edited by Donald Moggridge, Macmillan, London, 1981, p. 773.

[27] Centennial appreciation of Bagehot's "Lombard Street", (published in The Banker, March 1926), *Collected Writings*, Vol XIX, Part II, p. 468.

[28] "... .our statesmen. . .have generally served a long apprenticeship to sharp criticism...But a Bank Director undergoes no similar training and hardening. I am not sure if this sensitiveness is beneficial". *Ibid*, pp. 471:472.

[29] See *Collected Writings*, Vol. XX, Keynes's replies to questions by Mr. Tulloch (p. 202) and Mr. Brand (p. 241).

the first explicit recognition of the purely historical character of the dichotomy between the Issue and Banking Departments, an organizational curiosity with no economic rationale, which has been replicated in several newer central banks.

Keynes's ideas on the research and advisory functions and the proper public relations stance for the Bank of England were also well in advance of the contemporary climate of thought and opinion.[30] He thought that the Governer of the Bank should give a comprehensive economic review, say twice a year, which would come to be regarded as an authoritative expression of the state of affairs. Equally, he cautioned against too much expression of opinion. Keynes also recognized that the Bank of England was itself seriously hampered by lack of information on basic items such as the active note circulation, the balance of payments, the national balance sheet, output, investment, inventories, and profits. Keynes strongly favored sampling techniques since they enabled a quicker and better approximation to percentage fluctuations, which are more important than absolute figures as a data base for policy. Keynes thought that the Bank had distinct advantages over Government departments for building up a complete statistical service because "it would be more trusted than almost any other collecting agency by those people, particularly in the early days of this system, who fear that the information they were giving might be used to their disadvantage.[31] Keynes wanted the Bank of England to be the center of knowledge on all matters necessary for monetary management, and felt that if economic life is to be regulated at the source, "there can be no possible instrument of this except the Bank of Egnland. . ."[32] This is a most cogent expression of the latter-day concept of the macroeconomic role of a central bank.

V. International Cooperation among Central Banks

Keynes's evidence to the Macmillan Committee shows that he was among the first to stress the need for cooperation between central banks to promote international economic recovery and to economize the use of

[30]"Greater publicity of all kinds will lead to better understanding by the market of what the Bank's intentions are and that will facilitate those intentions being carried into effect and with more certainty. It nearly always pays the market to adapt itself to the real intentions of the Bank. So that the easier it is to interpret those, the quicker in effect will be the methods of control which the Bank uses. Publicity will also help to educate the public and the world and bring much nearer the day...when the principles of central banking will be utterly removed from popular controversy and will be regarded as a kind of beneficient technique of scientific control. . .': *Ibid.*, p. 262-63.

[31]*Collected Writings*, Vol. XX, p. 266.

[32]*Ibid.*, p. 265.

gold. He proposed collective measures beginning with the Bank of England, the Federal Reserve System and the Bank of France, to be followed by the central banks of Germany, Holland, Sweden, Switzerland, Spain, Italy, the Argentine, and Japan.[33] He advocated a concerted lowering of central bank rates until the price level rose materially and a reduction of legal reserves of central banks to a minimum ratio of 10 percent below the conventional ratio of about 40 percent. Accordingly, he outlined a minimum feasible and maximum desirable agenda of 'Methods of Supernational Management' between central banks.[34]

The minimal solution was broadly as follows. All countries must agree not to admit gold into their active circulation and to retain it solely as reserve money for central banks, who must agree to accept some substitute for gold as a part of their own reserve money. All central banks should be allowed the discretion to hold at least a half of their legal reserves as balances with other central banks, or preferably, with the Bank for International Settlements. The legal reserves should be subject to variation by an amount not exceeding 20 percent of the normal variation, on the recommendation of a committee of central banks. In all countries a 2 percent margin between the minimum buying and maximum selling price for gold would allow central banks sufficient latitude to handle their short-period domestic credit situations.

Keynes envisaged the ideal arrangement as a supernational central bank without any initial capital but with its liabilities guaranteed by adherent central banks. Its principal objectives would be to maintian the stability of the value of gold (supernational bank money or SBM) in terms of a tabular standard of value based on the principal articles of international commerce and to avoid international profit inflations or deflations. Its assets would comprise gold, securities and advances to central banks and its liabilities would be the deposits by central banks (SBM). Its gold reserves were to be determined at its own discretion and not be required to exceed any fixed minimum percentage of its liabilities. The SBM would be purchasable for gold and encashable for gold at fixed prices with a margin of two percent.

Its technique of attaining these objectives would be partly its bank rate, its discount quota, and discretion to conduct open market operations on its own initiative with the assent, in the case of a purchase, though not necessarily in the case of a sale, of the central bank in whose national currency the securities in question were payable. Keynes thought it would be desirable for central banks to be normally borrowers from the supernational bank at an established rate for periods not exceeding three

[33] *Ibid* Vol. XX, p. 151.
[34] *Ibid.*, Vol. VI, pp. 354-367.

months at a time, subject to a variable borrowing limit, in consonance with the requirements of the total quantity of SBM. But he did not explain the response of the supernational bank if the central banks preferred to deal with it only as a lender of last resort and the techniques which would ensure regular borrowing by central banks. However, he believed that more than conventional instruments—the supernational central bank would have to rely on consultation and joint action at monthly meetings of the board.

Keynes also recognized that "one can ensure nothing by the terms of a paper constitution" and that "the desirable objectives can only be attained through the exercise of daily wisdom by the monetary authorities of the world."[35] Furthermore, it was not realistic to expect of central banks a degree of international disinterestedness far in advance of national sentiment.[36] Keynes thought that the two major obstacles to international cooperation were the tendency of the Federal Reserve System's policies to be dominated by domestic considerations and the lack of familiarity in France with the whole order of ideas.[37] He also speculated that the Bank for International Settlements could well be the nucleus of a supernational bank, but that its future usefulness would largely depend on the support it receives from the United States.[38] Keynes thus very perceptively sensed the emerging role of the United States as a 'price' leader in an increasingly oligopolistic world economy and of the dollar as the major key currency of the future. Although it remained a paper scheme, Keynes's proposed supernational bank must rank high as an intellectual precursor of post-World War II schemes of international monetary cooperation.

Keynes played a prominent role in the Bretton Woods Conference (1944-45) but the International Monetary Fund as it emerged finally was based more on the White Plan rather than on his own Proposals for an International Currency (Clearing) Union. Keynes conceived the Union primarily as a central bank for central banks based on an international currency ('bancor'), overdrafts (not loans), interest charges on creditor as well as debtor positions, and exchange rates fixed in terms of the bancor. None of these features survived in the IMF's Articles of Agreement. Nevertheless, Keynes's basic ideas of inter-central bank cooperation found institutional and operational expression even if not in the form he desired. His Clearing Union also contemplated a number of parallel supportive organizations for commodity control, a Board for International Invest-

[35]*Collected Writings*, Vol. VI, p. 360.

[36]*Ibid.*, p. 257.

[37]" . . . in France . . . economic science is non-existent. French thought on these matters is two generations out-of-date. Then on top of this we have the gold hoarding propensities of the Bank of France. *Collected Writings*, Vol. XX, p. 154.

ment, and an International Economic Board for controlling the trade cycle. This attests to his growing awareness of the limitations of purely monetary and banking initiatives in the international sphere in contrast to his habitual tendency to neglect the real sector in domestic policies.

VI. KEYNES AND CENTRAL BANKING—AN OVERALL APPRAISAL

The inherent problems of establishing intellectual provenance are further compounded in evaluating Keynes's contributions to central banking, which is a uniquely complex amalgam of ideas, institutions, and operational experience unlike any other branch of macroeconomics. Moreover, there was an impressive body of central banking doctrine in England, Europe, and India preceding Keynes's work.[39] Bagehot's "Lombard Street" (1873) had clearly laid the foundations of modern central banking theory. India too was the scene of central banking schemes since Sir James Steuart's writings on Indian monetary problems (1772) and Warren Hasting's "Plan" for a General Bank in Bengal and Bihar (1773).[40] But these forerunners do not detract from Keynes's contributions to central banking which are all the more remarkable considering that he had no experience of central banking except for his short and somewhat peripheral spell as a Director of the Bank of England. Nor did he function as a consultant to any central bank except when the served on a committee (1920) to select the Governor for the new South African Reserve Bank.

Keynes's "Indian Currency and Finance" has been rightly accorded "a permanent niche in the history of thought on central banking,"[41] a statement which could justifiably be extended to many other writings of Keynes. He consistently demonstrated the regulatory and developmental rationale of a central bank in a dependency like India, often in the teeth of official opposition or indifference. Keynes's originality extended far beyond an eclectic synthesis of central banking doctrine from English, European and U.S. sources to an innovative adaptation to the Indian environment. Yet, it is one of the more glaring ironies of Indian economic history that Keynes, for all his extensive knowledge of and exposure to Indian monetary affairs, was never called upon to advise on the estab-

[38]*Collected Writings*, Vol. VI, p. 363.

[39]Cf. Elmer Wood, *English Theories of Central Banking Control*, Harvard University Press, Cambridge (Mass.), 1939; E. Victor Morgan, *The Theory and Practice of Central Banking*, Cambridge University Press, 1943; Vera Smith, *The Rationale of Central Banking*, P. S. King and Son, London, 1936.

[40]See A. G. Chandavarkar "Money and Credit, 1858-1947". Chapter IX, *The Cambridge Economic History of India*, Vol. 2: c. 1757-c. 1970, edited by Dharma Kumar and Meghnad Desai, Cambridge University Press, Cambridge, 1983, pp. 784-89.

[41]R. S. Sayers, "The Young Keynes", *The Economic Journal*, June 1972, p. 593.

lishment of the Reserve Bank of India in 1935, which also turned out to be a faithful replica of the Bank of England in perverse contradiction of his considered views and visions. He was alone among contemporary economists in working out organizational details of central banking such as the Board of Directors and the disposition of central bank profits except for an inexplicable omission to provide for their productive use. Keynes also did not give much thought to the implications of the indigenous banking sector in India, an issue which rightly engaged the concern of the Indian Central Banking Inquiry Committee.

Keynes presented the first systematic comparative discussion of central banking techniques, notably the complementarity of bank rate, open-market policy, and the variation of reserve ratios. But he did not envisage the possibility of a direct issue of a central bank's own securities to overcome the shortage of "ammunition" for open market operations, and nor did he explore the scope for manipulating government cash balances and for moral suasion as instruments of credit policy. Keynes's omission of the role of qualitative controls on the end-use of credit could perhaps be attributed to the fact that it was not a major comtemporary policy issue being more of a post-World War II phenomenon. Keynes's most notable contribution, however, was the formulation of the concept of the "unsatisfied fringe of borrowers" which encapsulates the imperfections of financial markets as a constraint on interest rate policies. It is the genesis of the modern concept of credit rationing which has stimulated such a considerable volume of analytic and policy debate. Keynes was always consistently ahead of his times in emphasizing the importance of discretionary central banking as against rule-based monetary management. He was perhaps the first analyst to question the economic logic of the purely historical dichotomy between the Issue and Banking Departments of a central bank. His evidence to the Macmillan Committee (1929-31) on the research and public relations aspects of the Bank of England is an uncanny anticipation of the recommendations of the Radcliffe Committee (1959). Keynes was also prescient in regard to both the scope and limitations of inter-central bank action in a world of economic nationalism.

In sum, Keynes's impressive contributions to the theory and organization of central banking, as an innovative thinker and as an institutional architect, epitomize the Classical and Institutionalist Keynes of the Treatise and the Committees as against the Revolutionary Keynes of the General Theory.