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STAFF PAPERS



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EDITOR'S NOTE

The Editor invites from contributors outside the Fund brief comments (not more than 1,000 words) on published articles in *Staff Papers*. These comments should be addressed to the Editor, who will forward them to the author of the original article for reply. Both the comments and the reply will be published in the same issue of *Staff Papers*.

The term "country," as used in this publication, may not refer to a territorial entity that is a state as understood by international law and practice; the term may also cover some territorial entities that are not states but for which statistical data are maintained and provided internationally on a separate and independent basis.

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William H. White

(1922–83)

An Appreciation

J.J. POLAK, GOTTFRIED HABERLER, RICHARD S. THORN,
VICTOR ARGY, and H. ROBERT HELLER*



WILLIAM H. WHITE, who joined the International Monetary Fund in 1948, spent his entire professional life in the Research Department. Present and past staff members, many of whom benefited from his advice, have asked that his contribution to the work of the Fund should receive recognition in Staff Papers. This appreciation draws on excerpts from written recollections of some of his colleagues.

* Mr. Polak, former Director of the Research Department and Economic Counsellor to the Fund, is currently an Executive Director of the Fund.

Dr. Haberler is Professor of Economics Emeritus at Harvard University and Resident Scholar at the American Enterprise Institute for Public Policy Research, Washington.

Mr. Thorn served as economist in the Research Department, the Western Hemisphere Department, and the Fund's Office in Europe during 1957–62; he is now Professor of Economics and Director of the Economic Policy Institute at the University of Pittsburgh.

Mr. Argy, Chief of the Financial Studies Division of the Research Department during 1967–72, is currently Professor of Economics at Macquarie University, Sydney, Australia, where he also serves on the Management Committee of the Centre for Studies in Money, Banking, and Finance.

Mr. Heller, Chief of the Financial Studies Division during 1974–78, is now Senior Vice-President and Director of International Economic Research in the Economics Policy Research Department of the Bank of America, San Francisco. In May President Reagan announced his intention to nominate Mr. Heller to the Board of Governors of the Federal Reserve System.

J.J. Polak, who was Director of the Research Department for more than 21 years at the time that William H. White was working in the department, writes that Bill White "belonged to that small band of economists who joined the staff of the Research Department of the Fund that E.M. Bernstein was organizing in the early days of the Fund. Some of these came, with wartime experience, from the finance ministries or central banks of members; but from the start the universities, too, were approached to contribute the brightest economists of the younger generation. The aim was to enable the Research Department to march to the forefront of economic thought as it applied both to countries' domestic economic policies and to the working of the international monetary system. The two Cambridges—in Massachusetts and in England—thus became a major source of supply of brilliant young economists to the Fund. Bill White was one of those warmly recommended to Mr. Bernstein by Harvard's Professor Haberler.

"When Bill White joined the Fund in the spring of 1948, he had not yet finished his work for a doctoral degree in economics. The promising nature of the work that he did in his early years, and the appreciation of his capacities that he was able to establish in that period, provided the basis for a positive response by the Research Department to his request for a year's leave of absence in order to get his degree.

"Since his return from Harvard to the Fund in 1952 and until his untimely death in 1983, Bill White worked continuously in the Financial Studies Division, with occasional trips abroad on Fund missions, during which member countries benefited from his thorough knowledge of all aspects of monetary policy.

"The many papers he wrote while in that division, and the far more numerous papers by others in the Fund to which he unstintingly contributed, provide a lasting testimony to Bill's contribution to the Fund."

Gottfried Haberler recalls that he met Bill White for the first time in the 1940s, when Bill was an undergraduate in Harvard, where "he was an outstanding student. His doctoral dissertation, 'Some Aspects of the Problem of Flexible Exchange Rates,' was a fine piece of work. . . . After 1971, when I moved to Washington, Bill and I met frequently for lunch until his untimely death. I found these sessions very stimulating and rewarding. Bill was an excellent theorist, a skillful analyst, well read and well informed

in many areas of economic problems, past and present, as the titles of his papers amply indicate. He was the ideal type of an international civil servant. His memory will always be dear to me."

Richard Thorn, a colleague in the late 1950s and early 1960s, remembers "Bill White's dedication to the idea that economics was important and that to remain important it must be relevant. He had little patience with rigor and theoretical elegance that did little to explain the problems of the day, or worse, confused the issues at hand with misleading simplifications.

"If one had to characterize Bill White professionally, I think one would have to say that he was a theoretician, yet his papers abound with statistical critique not only of the use of data but of the validity of the data itself. In theoretical orientation Bill was a Keynesian—he believed that money mattered—and in his life's work, in article after article, he attempted to show that money mattered in every real-world situation that he knew of. The question of whether money could be neutral in a theoretical sense was a question he felt was not really worth answering.

"While Bill White's work had a wide audience among professional economists, his most important contribution, perhaps, was little known to those outside the Fund. Bill was the Fund's internal critic *sans pareil* and its intellectual conscience. Whenever someone wanted a tough critique of his work, he would ask Bill to read his paper. Most economists in the Research Department when I was at the Fund were rather clannish and confined their contacts largely to colleagues in their own department. Bill, however, was besieged with a constant stream of visitors from the operating departments of the Fund. Word got around that he was the man to see if one had a theoretical problem. For generation after generation of Fund economists, Bill was always available for advice and counsel. Bill became a Fund institution. His criticism provided an important measure of quality control and contributed to the reputation the Fund gained for dispassionate, high-caliber research work."

Victor Argy, who was Chief of the Financial Studies Division from December 1967 through October 1972, in a note that concentrates on Bill's written contributions from 1951 through 1974, recalls that "Bill had two major qualities that were widely admired and recognized both inside and outside the Fund. First, he had a very sharp analytical and critical mind. Second, he had a very

good feel for the real-world implications and relevance of theoretical analysis. These two qualities showed up consistently in his writings.

"It is possible to divide these writings into two groups. First, there were those which were critical of other published work. Bill demonstrated here that he was quite masterly in debunking other studies. In these writings a number of themes kept recurring. One was the general limitation associated with survey studies and econometrics (for example, the practice of data mining—selecting the best equations from very large numbers estimated). Also, in a succession of papers he was particularly concerned with defending monetary policy against two charges: that lags were long, and that interest rate effects were weak. He showed in these articles that econometric and survey studies had serious limitations and did not support these charges. In his view the lags were not as long, and the interest rate not as ineffective, as some of the evidence suggested.

"Second, there were the writings that provided independent and original analysis. A number of these deserve to be singled out. His 1951 paper provides an excellent and early analysis of the effects of a budget on aggregate demand. It would still repay reading today. He looks first at accounting corrections needed to convert a budget into a form suitable to the economist. He then examines in detail the revenue and expenditure sides of the budget, noting carefully how different forms of revenue and expenditure have quite different implications for aggregate demand. For example, under revenue he distinguishes capital levies, business income taxes, household taxes, excise taxes, and import taxes. This work represents one of the first attempts to construct a 'weighted' budget balance.

"The 1955 paper with J.J. Polak was, deservedly, widely cited in the years following its publication. It in fact represents one of the earliest attempts to develop a money supply function in the open economy. The first part was theoretical, addressing itself to the question of how an increase in domestic expenditure in an open economy would affect the money supply. The analysis here is rigorously developed. The second part is statistical, looking for evidence on the behavioral relations embodied in the theoretical model.

"Bill's 1962 paper with Graeme Dorrance is a very useful evaluation of the different forms of monetary ceilings that might be adopted. This paper had a direct application to Fund work and

represented one of the earliest of the Fund's contributions on 'monetary' ceilings. In the paper the authors distinguish ceilings on money (total, currency, and deposit money), on assets of banks (total claims on specific sectors or types of assets), on the central bank's assets (total and domestic), and on government financing (deficit, and total expenditure). In each case there is a systematic analysis of the case for and against each form of ceiling.

"His first 1963 paper (July) was concerned with an analysis of what policies by the monetary authorities were required to secure a given rise in the short-term interest rate. Again, there is a very good blend in the paper of theoretical modeling and application to the real world, drawing on existing empirical work.

"The second 1963 paper (November) was again one that was widely cited. In it he develops a model of the spot and forward markets, drawing as always on illustrations from market practice and on existing applied work. In the last section of this paper he uses the model to inquire whether the adoption of such policies as central bank intervention in the forward market or wider exchange rate margins might enable the monetary authorities to limit capital movements without resort either to changes in domestic interest rates or to exchange controls.

"Although Bill's most important work was in the years up to 1974, one would certainly not want to overlook his later work, in the late 1970s and early 1980s. Of this work, one particularly needs to single out his two very fine studies of money demand. In one of these (1981), Bill provides a thorough and balanced analysis of the case 'for and against disequilibrium money,' a question that to this day sharply divides the economic profession.

"It would be incorrect to leave the impression that these writings were his only contributions to the Fund. Bill was much sought after by staff members writing within the Fund for comments, constructive criticisms, and suggestions for changes. He gave much of his time to this work. Bill also was in demand outside the Fund as a speaker and as a participant at conferences. Finally, he served on numerous missions for the Fund over the years; his colleagues on those missions would testify to his hard work, dedication, and constructive contributions."

Robert Heller, who was Chief of the Financial Studies Division from June 1974 through April 1978, also makes the point that, although Bill White's "written work was highly original and reflected an erudite mind, he made perhaps his greatest con-

tribution to the work of the Fund, and especially to his colleagues, by keeping them scrupulously honest. When asked to review a paper, he always gave generously of his time to produce a painstaking and thorough review, in which no detail escaped his attention. Indeed, his critiques were often more brilliant than the original paper. As a result of his efforts, the quality of the work done in the Research Department was greatly improved. It is a tribute to Bill that the very best researchers eagerly sought his counsel and criticism to test the soundness of their arguments. If a research paper stood up to Bill's careful scrutiny, one could have confidence that the analysis was sound."

Finally, Robert Heller notes that Bill was also a sportsman—a lover of hiking and sailing. "A gentle person, he was a witty companion and a loyal and caring friend."

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1980

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1981

Presented paper at the Monetary Economics Workshop, University of Pittsburgh, Pittsburgh, Pennsylvania, March 16-17.

1982

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Presented paper at the State University of New York, Binghamton, New York, October 7.

Presented paper at the American Economics Association Meetings on Inflation and Economic Development, New York, New York, December 29-30.



The Evolving Role of Monetary Policy in China

LUC DE WULF and DAVID GOLDSBROUGH*

IN DECEMBER 1978, CHINA started a process of economic and social reform with far-reaching consequences. In that process, individual producers—farmers, providers of services, and industrial enterprises—were granted greater material incentives and enjoyed enhanced authority to organize their production, acquire inputs, and dispose of their output in such a way as to increase their profitability. Whereas the broad objectives of this reform were clear at the outset, the specific reforms developed only gradually; experiments were launched, evaluated, expanded nationally when judged beneficial, or modified (even dropped) when found inappropriate. As a result of these changes, the role of mandatory planning—although still important—is declining, and new policy tools that operate more through economic levers than through administrative directives are gradually being developed. As part of this process, the policy instruments, intermediate targets, and institutional framework of monetary policy are undergoing substantial changes. Credit policy, which before the reforms was largely accommodating, has begun to play a more independent role, in conjunction with a more active use of interest rates. New specialized financial institutions have been created, culminating in the establishment of the People's Bank of China as a separate central bank as of January 1984.

This paper examines the operation of monetary policy in China before and after the reforms. Monetary policy before 1979 is

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Mr. Goldsbrough, Senior Economist in the Asian Department, holds degrees from Cambridge University and Harvard University. This paper was prepared while he was a member of the Research Department.

The paper describes economic developments in China through December of 1985.

considered in Section I, which describes the primary features of the prereform economic system, discusses its principal objectives and policy instruments, and analyzes the achievements and limitations of monetary policy in such a system. The subsequent evolution of monetary policy is reviewed in Section II, which describes the major changes in the economic system after 1979, examines the effects of these changes on monetary institutions and policies (including the effects on the process of financial intermediation), and discusses implications for the conduct of monetary policy and the choice of the most appropriate monetary targets.

I. Monetary Policy in China Before 1979

The instruments and objectives of monetary policy as conducted up to 1979 need to be considered in the context of the model for the central planning of resource allocation that China had adopted in the early 1950s.

Primary Features of the Economic System

In that earlier model, all key resources were allocated according to a central plan; output targets were set for the different sectors of the Chinese economy; detailed interenterprise supply and demand relations were outlined; and the attainment of the plan targets was the primary criterion against which the performance of enterprises and regions was judged. The role of monetary policy was to support implementation of the output targets contained in the central plan (that is, the physical plan) while maintaining financial stability. Therefore, credit policy was largely accommodating, in that it provided the economy with the minimum of liquidity necessary to satisfy the transaction requirements implied in the physical plan, given the prevailing administrative controls and the price, production, and distribution systems (see Hodgman (1962, p. 10)). The function of monetary policy during implementation of this credit plan was to prevent an excessive accumulation of liquidity outside the enterprise sector. The role of monetary policy in this model contrasts with that in market economies, where monetary operations also affect the allocation of resources in the process of maintaining financial stability.

The task of supplying funds to the enterprise sector was divided between the budget and the banking sector, following the division of responsibilities that had been adopted in the Soviet Union in the 1930s.¹ The budget was to supply, in the form of grants, all investment funds plus the minimum of working capital (quota capital) required by the enterprise sector. The banking sector supplemented these funds when enterprises required temporarily larger amounts of working capital (above-quota capital) but did not supply any investment funds. The banks charged a low interest rate on the funds they provided; these charges were not intended as rationing devices but were necessary because the bank had to pay interest to attract household savings and, to a lesser degree, to induce enterprises not to spend their liquid funds. In the absence of investment lending, bank credit was mostly of a short-term nature; this arrangement was often regarded by Chinese observers as conferring an added advantage of security, in that it protected the banks against the potential withdrawal of short-term deposits.²

This division of responsibility for the provision of funds followed from the arrangement whereby the profits of state enterprises belonged to the state, which determined the use of such funds through budgetary allocations. The budget charged no interest on the funds it provided, because the allocation of funds was determined by planning considerations rather than by relative profitability. Nor was it necessary to provide for the repayment of principal, since the budget already had a full claim on all enterprise profits.

To ensure that the liquidity supplied to the enterprise sector was not excessive, the budget provided only the minimum of working capital necessary for enterprises to operate, plus the amount of investment funds determined by the planning authorities. It was the responsibility of the banking sector to supply the enterprises with additional funds required by the lack of synchronization between enterprise receipts and payments and to ensure that such funds were not more than strictly necessary. In extending credit, the banking sector aimed to ensure financial stability by providing credit according to the "commodity inventory system" (see the next subsection, under "Credit Plan"). In addition, the banking

¹ In this section, the past tense is used for expository purposes. Many of the features of the pre-1979 monetary policy are still valid at present.

² See the references cited in Cheng (1982, p. 22).