Being asked to write one's memoirs is a sobering experience. The world in which I have lived has been interesting, but scarcely because of what I contributed to it. Thus, my account will have to deal more with what I observed than what I achieved.

#### Potsdam and Berlin

Some information about my background may be helpful in explaining views and biases that will become apparent presently. I was born as the son of well-to-do but honest parents. My father and paternal grandfather were bankers, my maternal grandfather was the civilian head of the Prussian *Kadettenkorps...* Casual information about business and politics no doubt was part of the daily conversational fare of the family. My father, with whom I drove to school from Potsdam to Berlin, would explain to me the rudiments of the gold standard or of arbitrage, and I have always been puzzled when others sometimes found these simple and natural financial processes hard to follow.

I never was aware of any economic advantage that my family might have with respect to my classmates. My mother made a successful effort to keep me away from the progeny of my father's colleagues, and my pocket money was kept below that of most of my fellow students.

The school's emphasis was on the classical languages of which, despite the great input of time, we seemed to absorb less than our parent generation. Mathematics was a minor subject, carrying through elementary differential and integral calculus. A high school concentrating on the natural sciences no doubt would have been a better preparation for an economist-to-be. The classical emphasis seemed to point more in the direction of writing or law. I hated every classroom hour, but remained indebted to my teachers for leaving me with a general sense of the values of culture and civilization, even though I acquired little enough of either. However, somehow I graduated at the head of the class.

<sup>\*</sup> Contribution to a series of recollections and reflections on professional experiences of distinguished economists. This series opened with the September 1979 issue of this Review.

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# Munich and Oxford

Choice of a career after graduation from high school was no problem. I would join the banking business of which my father was a partner. But first I was to go to the university, preferably to take a law degree as most useful in the banking business. Among young people of my age, or at least our social group, there was a prevalent view that one did not work at all at the university for the first year and then passed exams with the help of a crammer. During the one term I spent at Munich University, I followed the first part of this prescription. I won some minor tennis tournaments but never discovered the university library.

Shortly before that time, Britain had devalued. This seemed to provide a good opportunity to allow me to spend a year at Oxford. My father, who had close relations with the City of London, regarded this as a desirable attribute for a German banker. I spent a pleasant year, played tennis, drank tea and sherry, and read Henderson's Supply and Demand and Robertson's Money. But, since Oxford did not offer a program tailored to one-year foreigners, I soon started cutting my courses and learned little economics. There remains an image of Roy Harrod lecturing in Christ Church dining hall looking like Savonarola.

### Buenos Aires and Valparaiso

Meanwhile the Nazis were taking over in Germany and the exchange control cut off my source of funds. Rather than go back to Berlin, it was arranged that I would work for a Buenos Aires exporting firm which already had done business with my grandfather. At the age of 18, therefore, I became a college dropout. Office work for Staudt y Cia SAC from 8:30 to 7:30 was quite a change, but for the first time in my life I began to work. At night I absorbed such Argentine economic data and history as were available, learned how a country can reestablish a sound currency after years of an inconvertible paper regime and floating rates and lose it all again, observed the bureaucratic blessings of exchange control and bilateralism, and learned to appreciate the importance of adequate foreign-exchange reserves. The problems of a "small open economy" and of a country depending on exports of a few crops, about which I later wrote my dissertation, were part of the daily business of a firm dealing mainly in hides and wool. Some of the same lessons were further borne in on me during half a year's work with the Banco Aleman Transatlantico in Valparaiso.

Prospects for a business career in Latin America were not bright. Advancement in established organizations was desperately slow during the depression. Instead of thinking up ways in which I might get ahead by doing something on my own, I would worry about how the world could get out of a vicious circle in which low demand led to low production and low production led to low demand. I even sought ways of contacting some prominent economist to whom to submit my question, little realizing that economics prior to Keynes' *General Theory* had no very good answers. In late 1935 I ended up with a job of sorts with the Chemical Bank in New York.

### Wall Street After the Crash

In the United States, I had, of course, missed the banking crisis of 1932-33, but I arrived in time to live through what was then universally regarded as the failure of the quantity theory. The Chemical's securities analysis department desperately was searching out bonds at ever-falling interest rates. The economy was flooded with liquidity, and there was no way of employing the money productively. After a year with the Chemical Bank, mostly in bond analysis, and a period in the back office of a small brokerage firm, I advanced to securities analyst in another brokerage firm. The way to get ahead was to get orders for the business, but developments in Europe and particularly Germany made my European contacts increasingly less valuable. Finally it dawned on me, under the prodding of a friend in the office who was taking math courses at night, that perhaps I could improve my prospects in the brokerage business by taking courses in security analysis. So I registered at New York University, Wall Street Division.

The efficient market theory of the stock market had not yet come into prominence, if it had been formulated at all. Everybody thought that a securities expert should be able to beat the market. I concluded that to manage portfolios, as I was beginning to do, one had to understand the business cycle. In Dr. Haney's course I wrote a paper projecting the duration of the then-proceeding upswing to 1939, on the grounds that it would take that long to reach full employment. I could not see the expansion stopping short of full employment, and my firm and customers were sadly disappointed when in 1937 precisely that happened.

In the summer of that year, I made an abortive attempt to return to Germany but after half a year there and in Holland found the outlook too depressing. Back in New York I resumed my job and my night courses,

but began to move increasingly in the direction of regular economics and away from securities analysis. Eventually, on the advice of Professor Otto Nathan, in whose night-time seminar we had debated Keynes' *General Theory*, I applied to Harvard for graduate study. I wrote the chairman that I had a good and safe job in Wall Street but would give it up if they admitted me. Professor Burbank wrote back advising me to keep my good and safe job. However, if I insisted, Harvard would give me two years undergraduate credit for my German gymnasium, credit also for the time spent at Munich and Oxford, thus remedying my lack of a B.A., and admit me to graduate study.

#### Harvard

Monetary theory at Harvard in 1940 was dominated, of course, by Keynes' General Theory. This was principally taught by Keynes' leading American expositor, Alvin Hansen. A sort of counterpoint was being maintained by John Williams who doubled as economist for the Federal Reserve Bank of New York. Hansen was sure that monetary policy had failed and that it had to be replaced by fiscal policy. He was sure also (Hansen occasionally was in error, but never in doubt) that the American economy had reached a phase of stagnation and that in the absence of growth generated by the private sector it was the government's job to maintain full employment, however unproductively, by sufficiently large deficits. Williams viewed both the analysis and the remedies with skepticism, but did not have anything very specific with which to rebut Hansen. In the international area, Harris and Haberler dominated. The discussion was of exchange-rate management, exchange depreciation, controls.

With all this I had, of course, a natural affinity. I had approached graduate study at Harvard with considerable and well-justified modesty. I was particularly weak in the area of theory, having never seen an elementary text-book. But on liquidity preference, the quantity theory, exchange rates and international finance, I had at least opinions, however inadequately buttressed theoretically. I never before or after so enjoyed anything as this intensive acquisition of knowledge during graduate school. Somewhat to my surprise I found myself to be a successful student. The department gave me credit for every conceivable earlier activity remotely associated with economics, and after a year and a half I found myself with all required courses and my comprehensives completed with A or better, a teaching assistantship at Harvard, and

seemingly the possibility of a normal academic career. As I contemplated the prospects of resuming work in Wall Street, where stock-market volume and prices were dropping month by month, and compared the frustrating pursuit of brokerage customers with the enjoyable pursuit of knowledge at the university, I felt strongly inclined to the latter.

There was also the dim realization of my deficiencies in theory and mathematics. Nodoby can be quite so naive as to believe that, after a year and a half at Harvard, he knows all the economics he needs to know. Theory at Harvard was taught by Edward Chamberlin at the first-year level and by Schumpeter for more advanced students. Chamberlin focused rather excessively on his specialty, monopolistic competition, which was then very fashionable but later proved to be something of a blind alley. Schumpeter did not teach theory the way American graduate students wanted, hard information that can be written down and used to teach future students. His lectures were more a free flow of ideas, relying on the flattering assumption that we had read everything, and evaluating the truth content of a theoretical proposition mainly on the basis of its elegance.

It became clear to several of us that we needed more mathematical grounding. We proceeded to hire an instructor from the math department to coach us, but unfortunately he was drafted into the Service after a few months. Thereupon I proceeded to discover a German refugee, a former mathematics teacher who worked as a floor-sweeper in a factory at \$ 1.00 an hour, who was willing to take on the ungrateful chore of remedying my many deficiences. But before that had gone very far, I found myself accepting a job at the Federal Reserve Bank of New York as their Latin American expert.

In terms of becoming an economist, this was very probably a mistake. I should have stayed at Harvard, taught freshman sections and learned some theory in the process, written my dissertation and eventually ended up somewhere with an inconspicuous and unstrenuous professorship. But with my original attachment to Wall Street, the prospect of responding at least in some way to the mounting war in Europe through a public-policy job, and the prospect that in all probability either course of activity would soon be terminated by the draft, weighted the scales in favour of the New York Fed.

Before departing, I had an opportunity to discuss dissertation plans with Alvin Hansen. The two topics that seemed attractive were characteristic of the times. One was an investigation of a proposition, made by Marriner Eccles, who was then chairman of the Federal

Reserve Board, to the effect that budget deficits could ultimately be eliminated as a result of high government spending that would raise GNP sufficiently to bring revenues to the level of expenditures. This early version of today's supply-side proposition was examined and found lacking in theoretical merit and therefore not thesisworthy. A second possibility was to restate the Keynesian system in a way that would eliminate the interest rate altogether as a determinant of income. In the light of events since those days, I was fortunate that Hansen did not encourage this topic either. But it is a measure of the degree to which money and the interest rate had been downgraded in the economic vernacular of the times.

I might add here that I found the political temper of the Harvard graduate economic students remarkably moderate, in the light of the picture that today is sometimes conjured up of political trends during and after the depression. Having come to the United States during the middle 1930's, I had been prepared to believe that the New Deal was on the whole the right policy for the country. I was sometimes surprised by the virulence with which Roosevelt was attacked on Wall Street. But both in New York and at Harvard I had found very little evidence of outright communism. Even individuals who might have been disposed in that direction were too much concerned with making a living to become very ideological. To be sure, most of my contemporaries regarded capitalism and socialism simply as alternative forms of social organization to be preferred or rejected on the basis of their respective prospects of performance. Not justice and freedom but the production of GNP, qualified, of course, by some preference for greater equality, seemed to be the test. In those terms, capitalism showed up very poorly at the time. Schumpeter in that regard seemed to be on the losing side. Few of us, so far as I know, were aware that he had been working on a book that would spell out a philosophy so characteristic of a thoughtful European — capitalism was the better system, and was doomed. The war and later the great expansion of the American economy pushed most of these thoughts aside until they reappeared during the 1970's.

### The New York Fed

At the New York Federal Reserve Bank, where I started in the summer of 1941, Latin America was a growth field. Contact with Europe, in which Allan Sproul, the president, and John Williams had been deeply involved, was being severely curtailed by the war. Monetary

policy had been shelved and what was left of it was converted to war finance. When a visiting group of backwoods professors was given a briefing on the activities of the bank, one of them said, "I teach my students that you regulate the economy with open-market operations and discount rate, but all you tell me is that your function is to stabilize the bond market".

## Development Economics

Under these circumstances, contacts with Latin America rapidly increased. Since I now had to think about getting my dissertation done, it was natural that I shifted to a topic in that area. With the United States entering the war, there were, of course, more important concerns. I did not start the dissertation in earnest until after my draft board notified me of the termination of my deferment and expected induction within six months. The essence of the book was the application of the Kevnesian closed system to a small open economy, for which I chose Cuba. Because of its relations with the United States, Cuba had a number of interesting monetary problems of its own. But given my familiarity with that kind of raw-materials country, which I called an export economy, everything followed very naturally. Exports and imports took the place of saving and investment, which were relatively small. My earlier notion that money had ceased to matter I had to give up: all the effects of money that seemed to have vanished in the United States during the 1930's were in full evidence in the export economies of which Latin America then largely consisted. The export surpluses generated for these countries by the war proved enormously inflationary. The standard advice I gave to carefully husband these reserves for productive postwar use was spectacularly unsuccessful.

While the monetary problems of export economies seemed to point back to the conditions that had prevailed in the United States and elsewhere before the great depression — and were to come into their own again during the 1950's and 1960's — the theme of economic development was a new one with no close parallel in the older countries. Clearly the financial system of Cuba was inadequate to the financing of rapid development. There was a policy problem here that called for attention at the theoretical level as well which I did not think through properly at the time. Ten years later it once more became, for a short period, a subject on which I was to do some work.

One of the attractive features of Latin American expertise was that in Latin America every economist knew every other economist. There were not many, even in the major countries. Central banks played an important role in creating a new generation of economists, sending them predominantly to U.S. universities, and thereafter moving them rapidly into their higher echelons. Periodic meetings of Latin American central bankers and economists usually were longer, more festive, and less businesslike than similar gatherings in the northern hemisphere. To be initiated into the club amounted to a lifetime membership. Long after I had ceased to carry in my head the exchange reserves and balance-of-payments data of Latin American countries I was still made to feel welcome in this widening circle.

Part of this relationship took the form of missions to countries that were in the process of setting up central banks or reforming those they already had. With respect to the Cuban central bank project, the Treasury had the lead on the American side which involved some sharp clashes with American bankers. With respect to a number of other countries, including Paraguay, Dominican Republic, Guatemala, Ecuador, The Philippines, Korea, and Ceylon, Federal Reserve technicians, especially Robert Triffin, David Grove, Arthur Bloomfield, John Exter, and myself provided advice embodying many of the ideas pioneered by Triffin. These advisory relationships were extended to the fiscal side in the case of El Salvador and Guatemala, leading to a joint volume by John Adler and myself on the public finances of El Salvador and another by Adler, Schlesinger, and Olson on Guatemala. In each case, we sought to single out the characteristic features of these often very similar small open economies and to place the particular recommendations in a general context.

# International Monetary Reform

More central to the purposes of the Federal Reserve than these Latin American side issues was work on the reform of the international monetary system and on postwar policies with respect to the financial markets and the economy in general. Soon after the entry of the United States into the war, the Treasury under Harry White had begun to work in earnest on a code for international monetary conduct, combined with financial resources to implement it. It was assumed that this organization would take care of the postwar transition and of the long-run needs of the system. The British, under the leadership of Keynes, began to

develop plans analogous in principle but far more oriented toward the particular needs and experience of Britain and the monetary conceptions of Keynes. The Federal Reserve Bank of New York found itself pushed into an adversary position. John Williams, who had all the credentials of a leading expert in this area, as well as Allan Sproul, doubted that these all-embracing plans could meet the needs of a protracted and costly reconstruction period. They also saw need for much greater flexibility and pragmatism and doubted the viability of detailed global schemes. This attitude went under the name of the "key-currency" approach because it focused on the relation and stabilization of the dollar and sterling. It was assumed that other countries would fall in line and would receive the financing they undoubtedly needed from the United States and eventually also Britain.

Considerable work was done at the New York Bank in fleshing out these approaches. My own versions typically ended up with a system in which the United States, through the Treasury or the Federal Reserve, would become the supplier of credit to all the world. The logic of the situation seemed to me to point that way, but such an outcome did not endear itself to Williams and Sproul.

Subsequent events showed that, for the purposes of the immediate postwar period, Williams' key-currency approach was more realistic than the more centralized White plan. The IMF and the World Bank turned out to be premature and far from adequate to the needs of the postwar world, and a number of *ad hoc* measures became necessary. It took large-scale United Nations (read United States) financed relief and rehabilitation, the U.S. loan to Britain in 1947, and eventually the Marshall Plan plus the World Bank to accomplish what in the early 1940's had been thought capable of being fitted into one large international monetary framework. But I believe also that had the International Monetary Fund not been negotiated during or soon after the war, it probably could never have been negotiated at all.

These activities at the Bank produced various minor publications from which I must conclude today that certainly I (and probably most other participants in the discussions) never thought of the international monetary system as being anything but a fixed-rate system. The greater ease of exchange-rate adjustment desired by Keynes ultimately was shown to reflect more accurately the true needs of the international monetary system than was foreseen by the American plan. It is also true, however, that it was partly the decision of national governments to avoid exchange-rate changes when they should have been made that

made the Bretton Woods exchange-rate system more rigid than it would have needed to be.

# Postwar Domestic Policy

The New York Federal Reserve Bank also made an attempt to come to grips with the problems of the domestic postwar economy. From a national policy point of view no great insights evolved that would have differed significantly from the conventional wisdom of the times. For me personally it was an opportunity to develop some ideas in the area of fiscal policy. The most useful of these probably was the discovery of the balanced-budget multiplier theorem, i.e. the recognition that an equal increase in taxes and government expenditures is not neutral with respect to GNP, but has in principle a multiplier effect of one. This follows from the plausible assumption that the marginal propensity to save of the government is zero. With the secular rise in the share of government in the United States and other economies, more careful attention to this principle would have suggested that even if budgets had been balanced, inflationary pressure was likely to mount.

Postwar management of the huge public debt was a subject of obviously enormous importance to the Federal Reserve Bank of New York which conducted the Federal Reserve System's open-market operations. The virtually sole purpose of those operations during the war and the immediate postwar period had been to stabilize the price of government securities, from the shortest Treasury bills to the longest bonds, at interest rates ranging from 0.375 percent for 90-day Treasury bills to 2.50 percent for bonds of 15 years or more. The Treasury viewed any move within this rate structure as a threat to its ability to finance. For the Federal Reserve System, the rigidity of the structure meant the paralysis of monetary policy. The central bank was compelled to monetize unlimited amounts of government debt in order to support government bond prices. This increased the liquidity of the economy and contributed to the strong inflationary pressures emanating from decontrol of prices and other factors.

My contribution to this discussion, a very minor and in the event abortive one, was to show how debt management could be employed as an instrument of cyclical stabilization. Macroeconomic techniques available would then have comprised the triad of fiscal policy, monetary policy, and debt management. For a while, the looming presence of the public debt was such as to make this combination seem plausible. Eventually, the public debt's role in the economy diminished as its magnitude in relation to GNP dwindled. In any event, the Treasury, in debt-policy decisions, generally gave preference to its housekeeping motivations over anti-cyclical policy.

Among the many incidental activities of those years at the Federal Reserve Bank of New York were numerous missions abroad. The most interesting had to do with the setting up of a central bank in the Dominican Republic, a stint with the Marshall Plan agency in Washington, and a study of the Portuguese financial system. On the other hand, I firmly resisted numerous attempts, very plausible given my background, to involve me in U.S. occupation and post-occupation activities in Germany. I did this not because of any anti-German sentiment, of which I was quite free, but because it seemed to me too ambivalent a role in my circumstances. In retrospect, had I yielded to the pressures and taken advantage of the opportunities, I might still have ended up as a German banker.

#### Yale

The policy-oriented studies at the Bank, and the foreign missions, had produced a number of journal articles which in addition to the Cuban and Salvadoran books constituted a fair publication record. The possibility, therefore, seemed to exist for a return to academic life if that was what I wanted to do. My total lack of any teaching experience, which might have been an obstacle in the eyes of faculty appointment committees, had been remedied by a one-term teaching stint at Princeton, where I took over a graduate class in money and banking for three hours on Saturdays. I was not really anxious to leave the public service or the New York Fed, which had proved a much more attractive occupation than the private side of Wall Street which I had left some ten years earlier. My general attitude toward academic life was that I would like to die in a university but not necessarily live there. Thus, when Yale offered a full professorship, my first reaction was that it was too early to make the change. But a survey of the ages of professors of money and banking at desirable universities suggested that it might be a long time, if ever, before such an opportunity might repeat itself. So I made the change. It turned out well enough, so that when 10 years later the New York Federal Reserve asked me whether I would return to head up the research department, I was able to say truthfully that I would rather remain a professor.

At Yale, I soon found myself drawn into Washington-oriented activities related to monetary policy. Underway at that time was the freeing of Federal Reserve policy from the dictates of the Treasury and the restoration of the traditional objectives and procedures of monetary policy. This "rediscovery of money" was a process which I had observed in continental Europe. Even earlier I had seen the potency of the money supply in Latin America countries. The central bank legislation I had drafted for the Dominican Republic contained policy trigger points formulated in terms of the rate of growth of the money supply.

In the English-speaking and Scandinavian countries, Keynesian emphasis on fiscal policy had degenerated into virtually total rejection of monetary policy. It is hard to believe today how modest were the claims even the Federal Reserve felt it could make on behalf of the stabilizing power of monetary policy. Valuable theoretical work had been done by the System, at the New York Bank under the leadership of Robert Roosa, seeking to document the channels of monetary policy, through availability and lock-in effects from portfolio losses. On the opposite side were the view that Treasury bills and other short-term instruments were just as liquid as money. Small interest-rate changes, it was said, had no restraining effect, but any unsettlement of the rate structure would create nameless problems for debt management. Substantial monetary tightening would cause a collapse of the bond market and a recession. In other words, monetary policy either was impotent or capable only of producing a collapse. I was one of a group of consultants hired by Secretary Snyder to supply intellectual support for these generalisations. We did our best to disabuse the Treasury of such notions and to inject into its testimony before Congressman Patman's committee a sense of a positive role for monetary policy. These were the hearings that followed the "Accord" between the Federal Reserve System and the Treasury in the course of which Bill Martin had become chairman of the Federal Reserve Board. This first relationship with the Treasury, in which institutionally I was on what seemed to me the wrong side of the issue, ended abruptly in 1953 when the Republican administration came in and summarily fired Secretary Snyder's academic consultants. Five years were to pass before the Treasury again developed a use for me.

My first years at Yale also coincided with the early flowering of economic development theory. Years ago I had become impressed with the ideas of the Argentine economist Raul Prebisch, both in his innovative approach to central banking and in his analysis of cyclical dynamics of what he called the "center" and the "periphery". His thoughts helped me to sort out my own ideas about how export economies functioned. I was less enthralled by the developmental policy principles, not necessarily derived from Prebisch, which had taken over in Latin America under the motto of "import substitution". I tried my hand at developing a theory of development of export economies trying to adapt Schumpeter's theory of economic development in a way I had earlier adapted the Keynesian framework to the export economy of Cuba. I had to find a substitute for the entrepreneur, who in Schumpeter's framework is the propellant of development and who then obviously was not playing this role in most developing countries. The Schumpeterian process of innovation had to be replaced with one of adaptation of already existing techniques. The whole Schumpeterian system, which is driven by productive impulses, had to be turned around to the circumstances typical of developing countries where demand is the leading force. The approach was not a success. My parallels and juxtapositions were not convincing. Everybody could point to notorious exceptions. And above all the system did not seem to be quantifiable. This, of course, had been one of Schumpeter's own difficulties, which he sought to remedy as he passed from "The Theory of Economic Development" to "Business Cycles". But what was appropriate for Schumpeter was not so for someone trying to stand Schumpeter on his head, as it were, to explain developing-country dynamics in the 1950's. I made another half-hearted attempt employing a framework embodying Schumpeterian concepts in a book on the German revival a year later, but then gave it up.

### White House

Beginning in 1954, I did a part-time tour of duty as an adviser to President Eisenhower. In practice this meant working with Clarence Randall and Gabriel Hauge on trying to move the trade program of the Republicans in a more liberal direction. I was gratified to find that many of the people whom I had to approach were so willing to drop what they were doing and talk to me until I discovered that our secretaries always prefaced their phone calls by "Henry Wallich is calling from the White House". The effort to liberalize Republican trade policy had only moderate success.

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Shifting to Policy

The White House connection, following the writing of my book on the German revival, made clear to me that there was a choice to be made as to the direction in which I should go. I could either become a specialist in some relatively narrow area, or I could focus on broad issues of national importance. The first line, given my propensity to accept invitations to travel, probably would have meant becoming or remaining a developing-country expert. There would be book after book on country after country. There would be the pleasant sort of personal associations that any specialty generates among researchers who keep meeting at similar meetings. One could become totally absorbed by the usually not world-shaking issues arising from such activities. Somehow, I concluded that this was not what I wanted to do. I decided that I could make more of a contribution on broader issues, closer to national economic policy. There were, of course, many people active in this area. One would probably become a smaller fish in a larger pond. One would become less "scientific" because large themes often do not lend themselves to abstract or quantitative analysis. One would be in danger of becoming political. Nevertheless this seemed the more interesting route for me.

To clarify my ideas on fundamentals, I wrote a book on capitalism, *The Cost of Freedom*. Its principal thesis was that capitalism probably was not the most effective economic system if freedom were no objective. A centrally controlled society, however inefficient it might be, might achieve higher rates of growth if it were prepared to suppress the consumer. I thought that western countries should be prepared to accept this possibility and retain their free system.

The thesis may have been unnecessarily pessimistic. It certainly was a far cry from today's, in my view often exaggerated, claims on behalf of the virtues of a completely free system. But I believe that as of today it is not unfair to say that governments, in free as well as centrally planned economies, have so mishandled their affairs that the benefits from reducing the role of government seem increasingly persuasive.

I have never asked for a job in Washington, but the desire to focus on national issues made it natural to work in Washington again. Moreover, I have always believed that an economist has an obligation to accept a call to public service if and when it comes. This has been one of the few rules that I have tried to formulate for myself and, I hope, have reasonably abided by. Another was that I would not do something

purely for the money that might be in it if there was not sufficient intellectual interest.

My third rule — since I am listing guides to professional conduct — was not to do any business consulting. In principle I have had no prejudice against being paid by a corporation to express my views on their behalf in private or before some Congressional or similar audience. But on the first occasion when a significant contract came my way, I quickly discovered that it was not my views that were wanted. It was views serving the legislative purposes of the corporation. When, therefore, I produced my first memorandum telling the corporation which of their legislative demands were justified in terms of the principles of economics and which deserved to be rejected, there was some unhappiness. My explanation that economists are not like lawyers, who can with propriety defend a guilty client, did not convince, and we agreed to part amicably. Since then I have limited my activities for business organizations — but not, of course, governments and the like — to speeches and lectures that left me a free agent.

## Taxes at Treasury

In the fall of 1958, I was asked to succeed Dan Smith as head of the Treasury's tax analysis staff. I believe that Dan Smith considerably overestimated my expertise in taxes, although I developed some fairly firm views about many aspects of the tax system. In the last two years of an administration — the second Eisenhower term — not much in the way of new legislative initiatives can be expected. Some of the measures that might have been taken administratively foundered on the resistance of the Internal Revenue Service and possibly on a different sense of priorities on the part of the Secretary and the Under Secretary. For instance, we tried hard to accelerate depreciation and stimulate investment by shortening the useful lives of business fixed assets, in the face of engineering studies purporting to prove that the so-called Bulletin F lives were already shorter than engineering estimates justified. We got nowhere. When the Democrats came in two years later, they put that reform and others through without difficulty.

I would not have survived this period without the support of the Treasury's excellent tax analysis staff, headed by Douglas Eldridge. Secretary Robert Anderson seemed to know pretty much what I could do for him and what not, and used and supported me accordingly.

At the Treasury I had one opportunity significantly to influence the course of history, i.e., the outcome of the elections of 1960, and muffed it. In the fall of 1958, when the budget was being discussed within the administration, Bill Martin came back from the IMF meeting in New Delhi with a report that the dollar was being "talked about". We had heard similar stories from traveling bankers. The U.S. balance of payments had been in bad shape for some time. Gold was flowing out. Dollar liabilities were building up and everybody was pretty nervous. The budget deficit for fiscal 1959 was projected at the then unbelievable total of \$ 13 billion, but on the other hand the trough of the 1958 recession had barely been passed. To me it seemed too early to aim for a balanced budget in fiscal 1960, given the cyclical situation. But concern over the dollar weighed more heavily. Plans for the fiscal year 1960 budget were changed, the small deficit originally envisaged wrenched into balance, and the economy accordingly set on a lower expansion course. The recovery remained incomplete, the expansion culminated in May 1960, and the election of 1960 was fought in the context of recession. Given the narrowness of the outcome, there is little doubt that a different economic climate would have changed it. Whether anything I might have said could have changed the decision, premature as it turned out, to balance the budget, is, of course, very doubtful. In any event, I did not make the case forcefully enough, and had to learn again the lesson I should have derived from my 1937 NYU paper that recoveries do not necessarily keep going until full employment is reached.

# Council of Economic Advisers

Early in 1959, Steve Saulnier asked me to join him on the President's Council of Economic Advisers. It was a difficult choice and I was reluctant to leave the Treasury, which I had learned to appreciate as a closely knit, hard-hitting organization. But the White House relationship was tempting and the Council seemed an appropriate place for an economist. So I went. Work on the Council, at least in those days, was particularly affected by one general characteristic of the government process — one rarely sees either the beginning or the end of any particular operation. A project lands on one's desk initiated somewhere else, in the administration or in the Congress. One deals with it but rarely sees it reach a conclusion before it passes out of one's hands. John Kennedy said that success has a thousand fathers but defeat

is an orphan. For individuals with the necessary ego there certainly are numberless opportunities to claim the parentage of any project. Following the accepted wisdom that success in government depends on clearing everything with everybody, there are few things that do not, somewhere on their course to the Oval Office or to their burial in some file cabinet, cross a desk in the President's Council of Economic Advisers.

Much of my time on the Council was spent with matters relating to the balance of payments. The United States in those days took very seriously its role as banker to the world. The Eisenhower administration regarded itself as committed to supplying a reliable currency for reserve. trade, and investment purposes throughout the world. It was a far cry from the "caveat emptor" principle that is the hallmark of floating exchange rates. The exchange rate was not a price, but a contract. These concepts, no doubt very misguided in the light of today's more advanced thinking, pushed the United States into a series of measures for the defense of the dollar. Taken individually, many of these measures were undesirable. When in late 1960 I heard a senior State Department official — after two martinis — suggest that we might have to devalue and passed this morsel on to the Treasury, shockwaves reached all the way up to the President. In the light of hindsight, it still seems uncertain to me whether better monetary and fiscal policies after 1965 could not have made the dollar viable and preserved the fixed-rate system perhaps for an indefinite period. In view of the actual course of events, devaluation in 1960 might have been preferable. But given the nature of the attitudes then prevailing about U.S. world responsibilities, it was utterly unthinkable.

In the final days of the Eisenhower administration, as the economy began to slow, some of us on the Council became concerned about the failure of the money supply to rise. Short-term interest rates were constrained by concern about the balance of payments and the fear of capital outflows. Suggestions to raise short-term rates while lowering long-term rates through open-market operations made their appearance. This, however, would have required the Federal Reserve to give up their cherished doctrine of "bills only". Buying long-term bonds was anothema because of the unhappy experience shortly after the war and before 1951 in pegging the yield structure. We were, of course, very hesitant to advise the Federal Reserve about anything. "Operation Twist" was not undertaken until some time during the Kennedy administration, and, if subsequent econometric work is reliable, turned out to have much less effect than we would have thought.

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Despite many frustrations, my two years on the Council of Economic Advisers were a very interesting and instructive period. A few weeks after the 1960 election, in which Richard Nixon was defeated by Jack Kennedy, I received a phone call from my old friend and Yale colleague James Tobin. Tobin said that he had been offered my job and would I recommend to him that he accept it. I assured him that I would.

## Washington Post and Newsweek

Back at Yale, after two and a half years of government and earlier writing of two books, I had an experience that I believe is not untypical under such conditions. One has learned a great deal about some particular topics and is primed to lecture about them. But one has been hard pressed to keep up with some of the developments in the field and must work hard to catch up. I took some time off to learn something about econometrics, without, of course, being able to do more than quite elementary work in it. Meanwhile my wife learned to program and did my computer work.

Shortly after leaving the Council, Russ Wiggins of *The Washington Post* asked me if I would like to write editorial for the *Post*. In response to my claim that I knew absolutely nothing about the activity, he said "you will find it pretty much like what you were doing on the Council. You will write little pieces, a different subject every day, and you will find yourself calling up the same people in the government for information whom you have been calling while you were in Washington". After that I came to Washington every other week for a couple of days to sit in the *Post's* editorial offices, and on other days wrote as much as I could from New Haven and phoned it in. I averaged perhaps three to five pieces a week.

Wiggins had assured me of freedom to express my views. And indeed I found the editorial policy of the *Post*, under his editorship, to be extraordinarily open to different points of view. For the average reader, an editorial in the *Post* represents the view of a powerful newspaper and is accorded — at least so we hoped — an appropriate importance. Actually the process was quite different. At the daily editorial conferences there was a discussion of possible topics, the nature of the subject usually but not invariably determining who was to write it. There might be an understanding of what was to be said, but more implicit than explicit and based more on what the writer would consider the merits of the case than on any preconceived editorial policy

of the paper. The publisher, Phil Graham, before his untimely death, attended many of these sessions, listened carefully, but never sought to impose his views.

Nor was the editorial staff under any constraints from the business end of the paper. On one occasion it occurred to me to propose that I should write a piece on the need to break up General Motors. Russ Wiggins heaved a sigh and said if that was what I thought, I should go ahead and write it. In the process of checking out my analysis, I convinced myself that I did not have as good a case as I thought and I dropped the project. But it was only a long time later that it occurred to me to ask how much the advertising account of General Motors was worth to the *Post*. I was told what it was, and also that I should pay no attention to it.

During part of my time with *The Washington Post*, which I hope did not interfere unduly with my teaching at Yale, I also wrote regular pieces for *The Journal of Commerce* and, for a while, for the *Frankfurter Allgemeine Zeitung*. These pieces, in contrast to the *Post* editorials, were signed. They also were longer, involved more investigation and, in the case of the *Frankfurter Allgemeine*, an uphill battle with my diminishing command of the German language.

After a few years with The Washington Post, an opportunity arose to write a biweekly column for Newsweek. Both publications, of course, were controlled by Katharine Graham. Shifting from editorial writing, which has no precise standards of length and commands only a very brief attention span on the part of the reader, to a 700-word column involves a much tighter discipline on the writer. The story of the columnist who in response to a question how he always managed to capsule his thought in 700 words said "I write 700 words and then stop", is myth. At least the subjects are not necessarily dictated by the events of the day. They need to be researched more carefully, and the material needs to be effectively organized to make a point. At first I over-researched my material and presented too balanced a point of view. The editor told me the pieces were "dull and dead". I then cut down my research and began to rely more on what I already knew and had some conviction about. The editor seemed pleased and said that Newsweek, since it employed several columnists, not only separated fact from opinion, but also opinion from opinion.

The latter separation came about because the editor, Oz Elliott, was able to recruit Paul Samuelson as a potential contributor. Samuelson, however, preferred once every three weeks to a biweekly rotation.

At a Federal Reserve consultants meeting, Samuelson and I persuaded Milton Friedman to become a third, which would provide the desired frequency. This troika functioned until I had to withdraw upon joining the Federal Reserve Board in 1974. I always felt that I represented common sense tempering the voices of genius. I did not discovered how Friedman and Samuelson felt.

Writing for a large, popular audience is made much easier, of course, if one can draw on material and subjects on which one has done serious work. Involvement in a popular debate, on the other hand, may become the motive for research. If the process works well, all one's activities, especially teaching and government advisory work stand to benefit. In the course of this kind of activity, to be sure, there is danger of dilution of quality. How much of one's output of relatively superficial material is really at the expense of something better one might have done, or simply at the cost of free time, may be evaluated more charitably by some observers than by others.

## Treasury Again

During the Kennedy-Johnson administration, relations with the government did not cease altogether. It is in the nature of the American economics establishment that people of diverse opinions find themselves brought together for public policy discussions in a variety of fora. In the words of one of my colleagues, I was the liberals' favorite conservative, that is, a right-of-center Keynesian. I thus participated in the economic consultants groups of the Federal Reserve and the Treasury, and testified before Congressional committees. In all these places, despite continuing efforts to broaden participation and bring in younger people, women, and blacks, one met more or less the same people — the American economics establishment. When the Republicans came in in 1969, I inherited Seymour Harris' office as the Treasury Secretary's senior consultant, whose function it was to administer the Treasury's very sizable consultants group, and be around part of the time supplying advice on such things as he thought he knew something about.

A couple of days every other week in Washington, however, turned out a less effective basis for advisory work than I had thought. Teaching obligations and other activities made it difficult to do more. Access to the Secretary is no substitute for continuing involvement with other senior officials and with the staff. Thus, I encountered the familiar

problem of being effective as an adviser which reportedly also had faced my predecessor Seymour Harris. However, my function was different from that of Harris at least in one point: Harris' job had been created, in the view of some, to give the Kennedy liberals representation in the Treasury and to keep an eye on what they may have considered the excessively conservative propensities of Douglas Dillon and Robert Roosa. I had no such function with respect to Secretary Kennedy and Paul Volcker or Kennedy's successors Connally and Shultz.

Even so, the four years I remained in this role were not altogether unproductive. In particular, it gradually became clear to me that one function in which I had a comparative advantage was to articulate general policy ideas in the outside fora available to me, including in response to increasingly frequent invitations to speak to outside groups. In this role, I had to be careful not to confuse my function as a *Newsweek* columnist with that of a Treasury spokesman. I hope that the evidence of my column indicates that I was successful.

#### Federal Reserve Board

Toward the end of 1973, I received an inquiry from Arthur Burns whether I would be a candidate for Federal Reserve Board Governor, with an assignment to the Board's international functions. The great attraction of this offer, which, of course, meant no more than an opportunity to compete with a number of other candidates, was that it was a full 14-year term. At Yale, I was reaching the stage where I would have to begin thinking about retirement. I was also becoming aware of the problem of an aging professor in keeping up with younger competitors. It had begun to dawn on me, which I did not know when I went to Yale 23 years earlier, that dying in a university does not necessarily mean on a bed of roses.

On the other hand, leaving Yale would be a wrench for my family and myself. Being one of seven members of the Federal Reserve Board and 12 members of the Federal Open Market Committee did not seem a position of great influence, although one of considerable responsibility. I had always avoided committee work wherever I could, having learned early that I cannot think in committee. The financial side of the deal would cost me about two-thirds of what was then my normal income. But I thought that I had saved enough, even with three children still at Yale in varying stages. There was the challenge of public service, and the opportunity, as I thought then, to help scotch the inflation. In the

end, the opportunity of remaining professionally active for a longer time than I could at Yale, if my health held out, seemed the decisive factor. So I accepted the candidacy. I never campaigned and, of course, could not mention the matter to anyone but my wife. Early in March I was sworn in and that same night left for my first BIS meeting.

# Inflation

The problems facing the Federal Reserve in 1974 were broadly those with which I had dealt at the Treasury and in my publicistic activities. The economy was going through its first oil shock, By subsequent National Bureau determination, the recession had already begun, but what was visible then was principally the inflation. In the course of the years, views about inflation had changed significantly and as I thought, in the right direction. It was a far cry now from faculty meetings at Yale in the middle 1950's, when we debated inflation and discovered that, except for Willy Fellner and myself, the attitude was pretty much "damn the inflation, full speed ahead". The development of the Phillips Curve had lent support to this view during the following years and through most of the 1960's. In the various policy for ain which I encountered my colleagues during that period, especially in Treasury and Federal Reserve consultant groups, I usually found myself in a minority in pressing for less expansionary policies. Often it was a minority of one. The dominant pressure was always for lower unemployment.

By 1974, emphasis in discussion of inflation had shifted away from the benefits, in terms of lower unemployment, of riding the Phillips Curve. Instead, one frequently heard warnings about the high cost of curbing inflation. The Federal Reserve, as usual, saw itself in the forefront of the inflation fighters. My own posture, in Board and FOMC meetings, was of course in the same direction.

The Federal Reserve at that time had already been targeting on the money-supply for several years, beginning in 1970. Control of the money supply, however, was exercised by setting the federal funds rate as an operating target. There was a danger in this procedure of allowing the operating target to become a principal target, because of a natural reluctance to raise the federal funds rate whenever acceleration of the money supply seemed to require it. Moreover, under the 1975 Congressional resolution requiring quarterly setting of target growth rates of M1 and M2, there was a danger of rapid base drift. The new target base was

always set at whatever level the aggregates happened to reach in the previous three months.

For several years there were no serious adverse effects because the drift seemed to be down about as often as up. Meanwhile the targets that we set, beginning with 5-7 ½ percent for M1, seemed extremely moderate in an economy with a nominal GNP growing at 10 percent on average for the years 1975-77. My concern was that these targets seemed to put a financial ceiling over the expansion of the economy well below the level of full employment.

The M1 target was indeed quite well achieved during 1975-76, and even the overshoots in 1977-78 of less than 1.5 percent, were modest in comparison to the level and range of the lower and upper bounds. Most of the outside advice we received was that policy was excessively restrictive. Even some monetarists claimed that, while the growth rate of the aggregates was too high, their level was too low. What tripped us up was the instability of the relation between money and GNP, in particular a massive decline in the demand for money, at a given level of interest rates and income, following the high interest rates of 1974. High rates induced innovations in the public's handling of cash balances. The resulting downward shift in standard money-demand functions implied a rapid growth in what might be called the effective money supply. In retrospect, tighter targets would have been appropriate.

The most obvious indication of that need was the low or negative level of real interest rates, and their severely negative level after taxes. In my *Newsweek* days, I had developed a proposal for eliminating the inflation premium from interest rates for tax purposes. I now began to concern myself more intensively with the problem of inflation accounting. I tried to focus our thinking on real interest rates, encountering at first very limited receptivity. In the course of the years, however, the concept has considerably gained in acceptance.

As an anti-inflation measure, I also unearthed another old proposal of Sidney Weintraub's and mine — a "tax-oriented incomes policy (TIP)". This, too, gained no support within the Fed, but some within the Carter administration and a good deal in academic circles. The basic idea was to penalize firms giving excessive wage increases or, alternatively, to reward those that held a wage and price line. A bill for "real wage insurance" sent to Congress by the administration in 1979 embodied this principle, and I repeatedly testified on the general proposition. No legislative action resulted.

Throughout his second term as chairman of the Federal Reserve Board, Arthur Burns vigorously insisted on reducing the target growth rates of the aggregates continuously, however slightly. Burns, of course, was no monetarist, and neither were the rest of us. He was in fact quite skeptical of the stability of the relation between money and economic activity. But, as he frequently asserted, if the inflation was to come down, the growth of the money supply would have to come down. The FOMC voted for these reductions with considerable trepidation, fearing overkill and not realizing that the money-demand shift had made the targets overly easy.

Aside from the need to bring inflation down, there was a need to bring to light the effects it had on economic growth and the structure of financial and nonfinancial business. It was clear that under prevailing accounting practices, corporate profits were grossly overstated by depreciation based on original cost and inventory profits. Bank capital was being undermined because most of it is invested in paper assets that lose value with inflation. Both corporations and banks were paying out in dividends a far higher share of their true profits than they seemed to realize. Economic growth and financial soundness both have suffered in consequence. My own modest efforts, both on the inside and on the outside, were directed toward drawing attention to these facts. While there has been no outright legislative relief, there is today at least a much wider recognition of the nature of the problem, including by the accounting profession.

Long before joining the Federal Reserve, I had argued in favour of tax reforms that would increase investment and reduce the debt financing bias inherent in American corporate taxation. In that regard, I think of myself as an early supply-sider. I must confess that it never occurred to me that investment and productivity could be increased by massive individual tax cuts accompanied by huge deficits, which became the government's policy in 1981, and I do not believe it now.

# Bank Regulation

Before turning to the international field, which has been my specialty at the Federal Reserve, I need to mention an area important for the Federal Reserve which I have always found particularly frustrating. It is bank regulation and supervision. Having little background in micro theory, I have never been able to develop strong convictions as to how the American banking system should evolve. It is obvious that one

should be in favor of innovation and higher efficiency. But many particular steps in that direction often would lead to greater concentration. The absorption of many small local banks protecting their local monopolies may even be procompetitive. But it tends to remove from the scene the independent owner and replaces him with the hired branch manager. Allowing banks to engage in a wider range of activities than now permissible seems to increase competition, but raises questions about bank soundness. My original view, held with some confidence, had been that bank soundness should be pursued through more comprehensive deposit insurance. This seemed preferable to the inefficient method of maintaining high bank capital ratios, particularly when bank capital was being eroded by inflation. My suggestions to that end found few followers. In the face of increasing banking risks, at home and abroad, I reluctantly find myself supporting regulatory pressure for bank capital increases.

Finally, the structure of American bank supervision and regulation has defeated my efforts to achieve a consistent viewpoint. Three federal agencies regulating commercial banks surely do not add up to efficiency. A Federal Reserve Board member seeking to perpetuate this monstrosity must suspect himself — and will be suspected by others — of merely trying to perpetuate his agency's sphere of influence. But given the scope and pervasiveness of American bank regulation, consolidation of all these powers in one regulatory institution would create a very powerful agency equivalent to a second central bank. It and the Federal Reserve would have built-in conflicts that could be damaging to monetary policy. Consequently, one feels that the Federal Reserve needs to have a hand in bank regulation. That proposition, however, drives one back to defending the existing fragmentation of powers.

### International Monetary System

The international field, to which I have devoted most of my time at the Board, happens to be also the area in which I have had to make the most severe adjustments in my earlier thinking. By personal background and experience, my preference has been for fixed exchange rates. Floating has always appeared to me as a manifestation of lack of discipline and of disorder, rather than of desirable price flexibility. But during the 1960's, fixed rates and freedom of international payments were becoming less reconcilable. When a similar conflict arose during

the early 1930's, a large part of the world went for exchange controls. Having had my own experience of those, floating clearly seems to me the lesser evil.

With the adoption of more rigorous measures to control the money supply, the range of exchange-rate fluctuations seems to have widened. Firm control of the monetary aggregates is needed, however, to maintain the credibility of the Federal Reserve in the peculiar American environment, and to bring down inflation. To soften the impact on the exchange markets, intervention is not the answer. It can smooth day-to-day fluctuations, but not greatly influence cyclical and other movements. I have tried to design intervention techniques aimed at influencing the supply of foreign exchange rather than its price. These, however, seem more nearly applicable to smaller countries, especially those with controls over capital movements when they have to finance a current-account deficit, then to the worldwide dollar market.

In the course of working on international monetary matters on the Board, I have had to work with five different Under Secretaries of the Treasury who had primary responsibility. A perceptive Congressman once said that the world monetary system seems to change with every new Treasury Under Secretary. But the grand design for a world monetary system appears to have escaped so far all laborers in that vineyard. The work of the Committee of Twenty, in which I participated, has long been shelved. The world SDR system, which is the hope of the International Monetary Fund, still is in the distant future, if anywhere. The most likely shape of the system in coming years seems to be as uncertain as it was when I worked on monetary plans at the Federal Reserve Bank of New York 40 years ago.

Work in the international field has involved also representing the Federal Reserve in various international groups. Chief among them are the Bank for International Settlements, the Economic Policy Committee and Working Party 3 of the OECD, as well as the Deputies of the Group of 10 and Switzerland and the Interim Committee of the International Monetary Fund. I have greatly enjoyed the camaraderie and good feeling that prevails in these groups even at bad moments. The percentage of one's time spent in preparing for and meeting with these gremia is considerable, and if that could be taken as an index of international cooperation, that index would be quite high. As a practical matter, there is considerable value in simply being informed and aware of the concerns and interests of others. I have never been an advocate of

the surrender of national sovereignty, and I do not observe many in responsible positions who are.

The international flow of capital is a second major international area of concern to the Federal Reserve. It is so particularly because in recent years about half of total lending to developing countries has come from banks, for some of which the Federal Reserve has a responsibility. The banks have done a remarkable job in recycling OPEC surpluses and in meeting the needs of developing as well as other deficit countries. Losses so far have been small. That leaves the central banker in the uncomfortable position of seeing the risks, issuing warnings, yet not wanting to upset the applecart. Insisting on fuller disclosure, limiting country risk concentration, and pressing for more adequate capital are more positive steps that the Federal Reserve has taken or participated in.

As I view the world financial scene today, our greatest danger is not that of unstable exchange rates, but a repetition of what I observed as an 18-year-old, when the world was financially frozen over, with international loans in default, currencies blocked, and the whole mechanism threatening to grind to a standstill. A fair job has been done so far in avoiding a repetition. I hope that when I leave this scene, it will not be in a financial ice age like that in which I entered it.

Washington

HENRY C. WALLICH