

March 14, 1977

Professor Milton Friedman Apt. 15-E 5825 Dorchester Avenue Chicago, Illinois 60637

Dear Professor Friedman:

I do hope you will have the time to read carefully my letter and the enclosures. I have tried to respond point by point to the compelling criticisms of your last letter. You will find attached a copy of your last letter, for your reference, and copies of our entire correspondence on the issues which preoccupy me. I enclose also a copy of my essay in the book, Money and the Coming World Order, only parts of which I think you had time to read when I last sent it to you, large parts of which genuinely echo the sentiments of your last letter to me. I profoundly appreciate your willingness to share your time and thoughts with me.

I write in response to your thoughtful letter of a couple of months ago. I intended to write sooner as I wanted to reply to your considered critique of my letter and paper. But the Nobel Prize intervened, and since I desire to continue this correspondence, I decided to wait until the subsiding pressure of Nobel events might justify once again my presumptuous intrusion into your generous intellectual spirit.

First, my admiration for your work, from which I have learned much of what little I know, moves me to congratulate you on the Nobel Award. I know you do not consider it the measure of your scientific achievement, but you should know how proud some of us are of your world recognition, especially some of us who have known you only from afar, but who have been sustained in our beliefs by your leadership. Second, you should know how much I genuinely appreciate your willingness to consider my thoughts and to criticize them, especially because they diverge from your overall views merely in minor respects. Please indulge once again my effort to confront directly and frankly the criticisms contained in your last letter.

You criticize as a "travesty on Monetarism" my general comments on pages 79 and 80 of my essay (a copy of which is enclosed). But then you go on to separate yourself from other monetarists in the very same sentence. (You write, "Your discussion on pages 79 and 80 is a travesty of what is in fact the position of let me not say all monetarists but of myself [my emphasis].")



I make the same separation, referring on my page 79 to "some" who call themselves monetarists, and in no case specifying Friedman. Surely you must be aware of the fact that many journalists and students of money, who call themselves monetarists, are indeed no more than men who study monetary economics and might be better described as monetary interventionists. But more of them later.

In your last letter, a copy of which is attached, you seem to have two major and several minor objections to my implied criticism of <u>some</u> monetarists (and especially you object if I intend these criticisms to apply to you, which in certain specified areas I confess that I do).

- 1. You deny that monetarists (as I argue some do in my essay)
 "elevate the state over the market," except (to use the words
 in your letter) as "monetary authorities do determine the
 quantity of money."
- 2. You say in addition that you know of no "monetarist who advocates a monetary policy designed to maintain low interest rates."

On the first point, do you deny that your pathbreaking lectures (published in A Program for Monetary Stability) advocate central bank "open market operations" as "the [my emphasis] instrument of monetary policy proper" (page 50)? Do you deny that such operations are "per se" interventions in the market for cash balances, to be undertaken, in your words, "at the option of the Federal Reserve," (page 50) and that option to be "used continuously, from day to day, and in amounts varying by fine [my emphasis] gradations" (page 50)? Do you deny that such money market fine-tuning ineluctably requires hyperactive interventions by a monopoly central bank trying to fine-tune the market for cash balances, that is to say, the money stock? Far from proposing in your book to mitigate or to reduce "the power of the Federal Reserve System" (page 51), you emphasize that "nothing could be further from the truth" (page 51).

I understand that your proposals in this book have, by comparison to existing Central Bank operations, the spirit of simplicity and predictability. Your proposals may indeed achieve a desired 3-5% rate of growth in the money stock more directly through open market operations than that to be achieved by less rigorous and more varied central bank monetary policies. But you certainly do not rely upon the partially self-regulating mechanism of the market to achieve predictable money stock growth [in the market for cash balances]. You may have ruled out such a possibility on technical and practical grounds, among other reasons. But the fact remains that, as I said in my essay, you elevate the State (or its monopoly instrument, the Federal Reserve System) over the market in cash balances. Through this you would, as you say,



"achieve any movements in the money supply that one might retrospectively have desired" (page 51).

May I ask you if there <u>really</u> is so great a difference between <u>fiscal finetuning</u> through tax and budget policy on the one hand and, on the other, <u>monetary fine-tuning</u> through "continuously" intervening "from day to day", as you recommend, in the market for cash balances? You say moreover in your letter that "you do not know any monetarist and certainly not myself, who has been in favor of fine-tuning." But what is continuous and sustained central bank open market operations if it is not an effort to fine-tune the money stock, according to a predetermined goal (rule?) which goal may or may not coincide with the equilibrium level of cash balances during a given market period?

Moreover, I do understand the difference between the "scientific and normative" aspects of monetarist writings, which you suggest I do not. I have not been misled about what some monetarists say and do, though not all who call themselves monetarists are as careful and rigorous as you. I know when you are making a "factual" statement and not a "proposal." If I may use the very words in your letter to me, I, too, would emphasize that "the purpose of science is to analyze the world as it is." But even more, "we want," as you subsequently say, "to analyze the world as it is, of course [my emphasis] in order to suggest improvements...." I understand that the central improvement which you propose for the conduct of monetary policy, namely, a 3-5% rule to be achieved through open market operations, is a normative proposal, deriving its compelling logic from your scientific research of "the world as it actually is." I am simply not as confident as you that open market operations constitute so great an improvement over the clearly defective central bank policies which you above all have found to be wanting in the past.

I know from your writings that you would suppress the already moribund discount rate, minimize the importance of reserve requirements, and raise up open market operations as the "efficient" tool of a central bank in pursuit of a steady rate of money stock growth. I must say that I have little confidence in central bankers who, even following a rule, have the monopoly power to manipulate day-to-day the interventionist tool of open market operations. First, each market period is unique. Does the Open Market Committee know enough about the peculiar origins of disturbances in the market for cash balances in a given market period? Second, financial information is neither perfect, nor is it instantaneous. Nor are the causes and effects of the variations in the demand for cash balances, in any one market period, sufficiently well known, to allow us to call open market operations, even in the hands of intelligent men of goodwill, anything more than poorly educated guesses and therefore rank speculations. These guesses are not likely to give rise to an "efficient tool" for the implementation of monetary policy, even if the rule itself is efficient and simple.



I have operated in most financial markets over the years, and I have reflected on that experience. If I did not have the bruises to remind me, I would still be skeptical of the abilities of bureaucrats in Washington, generally far removed from these markets, to fine-tune them. My reflections upon central bank operations compel me to tell you, though, that I too would suppress variable reserve requirements. However, I would abolish open market operations and require the Treasury to finance its cash needs in the market away from the banks, except for authentic self-liquidating tax anticipation bills of less than a year maturity made eligible thereby for rediscounting. Finally, I would enjoin upon the Banking System the supremacy of the central bank Discount Rate. The discount rate is an artful instrument properly proportioned to the limited knowledge and intelligence of men. Its effective use requires little discretion on the part of pretentious central bankers, a singular virtue which should recommend it to reasonable men and classical liberals.

If it is the evils of an overly "managed currency" which we wish to avoid, then it is uniquely the discount rate mechanism, among the tools of central banking, which does not require continuous central bank intervention in the market for cash balances, while at the same time it provides for the steady supply of cash balances to a growing economy. The discount rate is a tool scaled to the wit of men. It requires little of central bank "currency managers" who might otherwise desire to fine-tune the money stock growth with the full panoply of their powers. Moreover, the discount rate merely requires for its effective use the limited information available to all participants in the market for cash balances.

May I briefly demonstrate this point? The discount rate is a bank rate. It is the threshold level at which the buyers of cash balances (i.e. demanders) in the money market may gain access to the means of payment outside or away from the market (that is, at the bank). When in a given market period actual cash balances are equal to desired cash balances, market interest rates are stable. If in a subsequent market period the demand for cash balances exceeds their supply in the market, money market interest rates on bankers' acceptances and commercial paper begin to rise toward the level of the bank rate. If the demand for cash balances in the market remains unsatisfied, money users will gravitate to the bank, and the bank rate will begin to rise in tandem with the market rate. If, as it should, the discount rate hovers slightly over the bank rate, the bank rate itself hovering slightly over market rates, then as soon as the banks exhaust their ready cash balances (supplied to creditworthy money users whose demands were unsatisfied in the market away from the banks) the bank rate itself will levitate toward the discount rate. At the point where the commercial bank rate intersects with the central bank discount rate, creditworthy money market dealers and commercial banks may cross the critical threshold, thereby gaining access to the cash balances of the central bank, whose limitless capacity to discount eligible paper provides the necessary cash balances still demanded but previously unavailable in the market outside the banks.



At all times such an institutional arrangement assures that the supply of cash balances will be made equal to the demand for cash balances, at varying interest rates determined in the market for cash balances. The crucial point is that the level of cash balances is determined in the open market, not in the Open Market Committee of the Federal Reserve System. So long as the discount rate hovers above the bank rate, and the bank rate above the market rate for eligible paper, the market for cash balances will yield in any given period a specified cluster of interest rates, which will give rise, "ceteris paribus" and in the absence of immobilizing impediments, to an equilibrium level of the money stock. There is little need in such a case for fine-tuning the money stock through continuous open-market operations. An efficient money market and simple institutional rules governing banking system discount rates will tend to give rise to a steady rate of growth in the supply of cash balances, consistent with the rate of real economic growth (say 3-5%) and with changes in the velocity of money as determined by the technology of the payments mechanism.

Admittedly this is an oversimplified version of a model with which, if you gave me the time and the space, I would take the liberty to burden you in detail. But we must go on.

Is it really true as you go on to say in your letter that "monetary authorities determine [my emphasis] the quantity of money"? I would prefer to quote your answer, which you have given many times, but in this case on page 89 of Monetary Stability: "Under present circumstances, even the stock of money is not directly controlled by the system. The system controls directly its own earning assets." But having acknowledged in this factual statement an earthly limitation on human intelligence and central bankers, you go on nevertheless to advocate and to rationalize the power of the state central bank over the market for cash balances, in order to achieve, as you say, "close control over the money supply" (page 89), suggesting moreover that only an absence of "will" (page 89) on the part of the authorities will deny them the desired level of absolute control.

But once again on page 89 you proceed to acknowledge human frailty and thereby to mitigate the efficaciousness of your approval for "authoritative central control" over the money stock, while you nevertheless (uncharacteristically?) imply great confidence in the "experience" and "trained personnel" of the Federal Reserve System bureaucracy (page 89). You refreshingly conclude the paragraph by admitting that "I do not mean to say that the process would not involve much trial and some error but only that the errors need not be cumulative and could be corrected fairly promptly. The process involves technical problems of considerable complexity, but they are of a kind with which the System has much experience and for which the System has trained personnel." I say "uncharacteristically"



above because of the unforgettable sentence in your great essay of 1961 in The Journal of Law and Economics: "The Future [of the Federal Reserve System] reflected the danger inherent in a monetary system that gave great power to a small number of men and therefore was vulnerable to...accidents of personality and shifts of power."

On your first point, then, may I conclude:

- In my essay, I do distinguish between you and others who fashionably but improbably refer to themselves as "monetarists."
- 2. I deny that, "under present circumstances" the "monetary authorities determine the quantity of money." I affirm that monetary authorities <u>influence</u> the quantity of money, but that sovereignty in the market for real cash balances belongs largely to the money users, when in the absence of a convertible currency, it does not belong to the creators of the Treasury's surplus and deficits. More on this later.
- 3. I appreciate your distinction between what is "factual" and what is "desirable." But I deny that Federal Reserve open market interventions, no matter what the will behind them, can permanently seize control of the real money supply from the sovereign money users, i.e., the demanders of cash balances. I deny that Arthur Burns or Paul Volcker, with a paltry 100 billion in System footings at their command, can achieve hegemony over the trillions of financial footings available to the world banking system and in the hands of the users of cash balances in the integrated world money markets. I acknowledge that the Federal Reserve System may, at indeterminate intervals, influence the nominal price level and therefore tend to influence the demand for cash balances during unpredictable market periods, all other things being equal.

Point (2). You write that "you do not know any monetarists, and certainly not myself, who have been in favor of fine-tuning." Nor do you know of "a monetarist who advocates a policy designed to maintain low interest rates." You challenge me "to name a single person." You further quite properly criticize my lack of footnotes.

I shall answer your last criticism first. My essay is no more than that-an essay. All four contributors to the book were asked to minimize the academic apparatus. But perhaps I may remedy the footnote defect now.



Allow me to call a monetarist someone who consistently pursues research in the field of monetary economics, who has made contributions in the field by publishing opinions and arguments and who would not wholly deny the term when it is loosely applied to him. By this definition of monetarist, Thomas Sargent and William Poole, among other monetarists, seem to suggest that an interest rate rule may be preferable to a money stock rule. Moreover, they seem to argue, implicitly, that fine-tuning, through interest rate manipulation in the money market, may be a means of increasing the community's well-being.

Poole, for example, has argued in his "Optimal Choice of Monetary Policy Instruments in a Simple Stochastic Macro Model" (Quarterly Journal of Economics, Volume 84, May 1970) that:

"...monetary authorities may operate through either interest rate changes or money stock changes, but not through both independently, and therefore must decide whether to use the interest rate or the money stock as the policy instrument. The analysis provides two major findings. First, for some values of the parameters an interest rate policy is superior to a money stock policy while for other values of the parameters the reverse is true. Second, it is possible to define a combination policy in which the interest rate and money stock are maintained in a certain relationship to each other—the nature of the relationship depending on the values of the parameters—and to show that the optimal combination policy is as good or superior to either the interest rate or money stock policies no matter what the value of the parameters."

And Sargent, it seems to me, takes a similar point of view. In his "The Optimum Monetary Instrument Variable in a Linear Economic Model" (Canadian Journal of Economics, Volume 4, Number 1, February 1971), Sargent argues:

"One reason for studying the monetary instruments problem...is that the effects of the accelerator, expectations of inflation, and price adjustments in response to output changes have played an important role in the arguments of proponents of using the money supply as an instrument. For example, Baily and Friedman have pointed out that pursuit of a target nominal interest rate is liable to be destabilizing... Yet it seems that this argument constitutes less of an indictment of the general use of the interest rate as the monetary instrument than a criticism of one particular way of improperly using it as the instrument. Depending on the origin of the disturbances affecting equilibrium, the monetary authorities may have enough information to revise the target interest rate in such a way as to neutralize the disturbances."



I am in no position to judge the adequacy of Poole's and Sargent's arguments. I admit that I am confused by the apparent ambivalence on this issue expressed by Poole in two later articles ("Reflections on U.S. Macroeconomic Policy" in the Brookings Papers on Economic Activity, I, 1974, and "Interest Rate Stability as a Monetary Policy Goal" in the New England Economic Review, May/June 1976). These later articles seem to vary in their emphases on money stock growth and interest rate variability as instruments of policy. But in my opinion, both Poole and Sargent are monetarists who suggest that interest rates may be appropriate targets of Federal Reserve policy. They also seem to argue that interest rates should be manipulated by the monetary authority as economic circumstances change.

I clearly recognize that neither you nor your monetarist colleagues are hyperactivist in your fiscal and monetary policy recommendations in the manner of Tobin and other neo-Keynesians. And I understand, thanks to your compelling research on this subject, that to stabilize money growth rates would be an improvement over past Federal Reserve policies. But some of your monetarist colleagues disturb me. I see in their arguments, and implicitly in some of yours, a gratuitous elevation of the State over the money market. Their monetary policy research might well rationalize certain activist government and central bank policies of the Tobinites, formulated, as they are, in terms of interest rate targets. Such interest-rate oriented policies, as cited in Poole and Sargent above, may have as much right, in the authors' views, to be called monetaristas your stable money growth-rate rule.

To sum up on Point (2):

- 1. I cite two examples of would-be monetarists who acknowledge the appropriateness of an interest rate policy.
- 2. I deny that monetary policy is an instrument by which the sovereign nation-state should attempt to shape the domestic market in order to bring about an outcome different from an efficient free market outcome.
- 3. I deny that even the monetary policy of a Great Power, like the U.S., comprising 30% of integrated free world output, can shape its domestic money market without a substantial and possibly destructive impact on its trading partners. This proposition will hold in a global monetary system characterized by the Gold Exchange Standard (Bretton Woods), or by managed floating rates. (Global social destabilization generally results from substantial variations brought about in domestic real wage rates in the manufacturing sector. These variations often result from activist central bank monetary policies which bring about



exchange rate outcomes different from efficient free market outcomes. We could talk about hundreds of examples here, but watch the impact of Mexican steel on the Western U.S. steel market this year, and observe the share price of "Tubos," the integrated Mexican steel producer, on the American Stock Exchange, as it exports its steel for dollars and pays its wage laborers in depreciated pesos.")

4. From the standpoint of the logic of fine-tuning, I deny the difference between "fiscal" fine-tuning and money stock fine-tuning. From the same standpoint, I deny the difference between money stock fine-tuning and interest rate fine-tuning.

From the standpoint of one who would wish to choose the least disruptive fine-tuning instrument, if one must wish to prevail over the market, I admit the difference. I repudiate, to the extent reasonable men may, all fine-tuning by government monopolies which results in misallocated credit and real resources and which brings about fortuitous market outcomes in the aggravated economies of our smaller, more dependent global neighbors.

Point (3): You criticize my analogy between the monetary unit and the yardstick. You say that "the exchange rate is not equivalent to a unit of length." But to the extent that the monetary unit and the yardstick are both unequivocally standards of measurement, upon which reasonable people rely in good faith, you have made a distinction without a difference. You go on to suggest a better analogy, the thermometer, and ask me "whether it would really improve medical care to make sure that all thermometers at all times read 98.6°". With all respect, I am afraid it is your analogy which is defective; for I must ask you if it would really improve medical care if, during different market periods, the sovereign Department of Health, Education, and Welfare varied at will, on a continuous day-to-day basis, the definition of human temperature normality-98.6° today, 94.3° tomorrow. But you are right, analogies are bad arguments and I have consigned my yardstick to the flames.

Point (4): I am delighted to tell you that I read long ago the article which you recommend to me, "Real and Psuedo Gold Standards" and hasten to tell you that there is between us no "fundamental difference," as you call it in your letter. Our analysis of the problem of the monetary standard is largely the same. (It could not be otherwise, as I am a distant, if prodigal student of yours.) It is our prescriptions which will differ. You choose to limit (to fix?) the quantity of a government monopolized fiduciary currency through the establishment of a money stock rule, a rule made effective by means of the interventionist instrument of central bank open market operations. You also believe the establishment of such a managed fiduciary currency to be the most economical allocation of scarce resources to the "production" of the monetary unit. I disagree. I believe you may be right in the short run, but that history and experience, especially the logic of human nature,



will prove you wrong in the long run. Accordingly, I would choose to limit the value (price?) of the fiduciary currency issue, itself a technical monopoly, and thereby to discipline an expansive fractional reserve banking system by requiring universal convertibility into a specific weight unit of gold, not only of the currency, but also of the sight liabilities of the banking system. You would "fix" the quantity of money, through your money stock rule, in order to regulate the government monopoly which supplied cash balances to the market. I would fix the value of a unit of money in order to regulate the same monopoly. (My reasons for doing so are elaborated on pages 103-110 of my essay, enclosed herein. I would be interested in your comments on this part.) You would argue that my monetary "regulator" absorbs an excess of real resources to sustain it, and is therefore, in social terms, too costly. I say that whatever the minor incremental social cost of a convertible currency (compared to what? -- the mammoth regulatory cost of the Federal Reserve System?), it is nevertheless a superior stabilizer, a more efficient regulator in the long run. And for that matter, the social order, unlike the individual, must not be a short run profit maximizer. It is no excessive cost to society to allocate that share of real resources to the regulating mechanism of its money supply which assures the ineffable virtue of trust in its monetary unit. To assure that trust.

finally, I propose a convertible currency, combined with an efficient central bank discount rate policy, which will leave less discretion in the hands of a small group of very human beings who run the Open Market Committee. Though in some places you have expressed your confidence in the "experience" and "trained personnel" of the Federal Reserve bureaucracy, it is also you who have said of the Open Market Committee, and I repeat, that its catastrophic "failure [in 1930] reflected the danger inherent in a monetary system that gave great power to a small number of men and therefore was vulnerable to... accidents of personality and shifts of power." Moreover on the same page, you are definitive in your criticism of "the usual outcome of committee control: the evasion of responsibility by inaction, postponement, and drift." (page 254, Dollars and Deficits)

In sum on Point (4):

- 1. I deny the necessity and sufficiency of the money stock rule.
- 2. I doubt the efficacy of open market operations.
- 3. I dispute your argument that <u>over the long</u> run the relative real costs of a convertible currency (that is to say the resource cost of a "true" gold standard) exceed the costs of managing a limited fiduciary currency, whatever the rule and whoever the rulers.



Point (5): I concur that, as you say in your letter, "a unified money can only be co-extensive...with a single political authority and a single monetary authority." My essay from pages 87-110 is one sustained argument to demonstrate that point and to draw the necessary conclusion for U.S. monetary policy in an irreducible world of nation-states. Moreover, I oppose world government, with all the passion of the grandson of an immigrant to America from Russia, and I oppose the IMF and the Federal Reserve Open Market Committee with the conviction of a classical liberal. It is because I oppose a presumptive world government which would give us a unified single currency that I look to the United States, the equilibrium leader of the free world, to do so through a true gold standard.

I believe the difference between anarchy and order in world society is often no more than the willingness of the natural leader (in the global economy, surely America) to impose upon itself a self-denying ordinance, which by virtue of its increasingly self-evident value as a public good, induces emulation among other nation-states. It has been argued by many, you included I believe, that only U.S. financial self-discipline in the present floating exchange-rate regime (based as it is on the reserve currency status of the dollar) can yield global price stability.

I should like further to argue that if American leadership intends to submit voluntarily to such self-denying ordinances, the same leadership might reasonably ask the leading trading nations of the free world to embody in a monetary agreement those same ordinances. Such a treaty should define a simple and efficacious monetary rule. Such a treaty would rule out official reserve currencies, and thereby eliminate the burdens and privileges of the reserve currency systems based on the dollar and sterling. History has yielded enduring and stable exchange-rate regimes only when they have been based on fixed currency exchange rates and universal gold convertibility; and only when such a regime is upheld by the indisputable equilibrium leader—in the coming era, that is, by the United States.

The very operating principle of such a fixed exchange-rate regime, based on convertibility, would rule out the inflationary excesses sometimes caused in the past by the monetary policies of the reserve currency countries, best exemplified by sterling in the 1920s and the dollar in the late 1960s and early 1970s. If the behavior of great nations, as of men, is to be governed by rules rather than by momentary impulses of self-interested politicians, the equilibrium leader itself, the United States, must elaborate a stable and lasting exchange-rate rule in a monetary treaty, a treaty which will have the force of law among the free nations of the world. Such a treaty will determine equitable fixed exchange-rate relationships based on gold convertibility. This treaty, developed under U.S. leadership, will bring to an end the age of inflation through which we are now living.



Point (6): You say at the end of your letter that my argument is "unrealistic in the...fundamental sense that it prescribes policies that, in the present actual state of the world, are undesirable." Reasonable men may differ about the nature of the present actual state of the world, but I believe we would differ very little. Therefore, I should like to think our disagreements arise not out of a dispute about the nature of things as they are. Rather that they arise out of our perception of what is possible and therefore what is desirable.

In sum on Point (6):

- 1. I deny that my monetary policies are either impossible or undesirable. It is true that most of our fashionable political and economic leaders hold such an opinion of them. But these leaders too shall pass. Though they are learned and know all, they understand little.
- 2. I affirm the wisdom of a convertible currency. I affirm its practicability. I believe that America has it within its power to go forward to a true gold standard, that our trading partners could be caused to emulate us, and that such a monetary system would be the basis for an enduring international monetary order, not to mention that the establishment of such an order would give rise to an unprecedented outpouring of investment and production in a new world of stable expectations. Such indeed would be the output yield of a decision by society to invest real resources in a convertible currency.
- 3. Finally, to those who ask, in the perspective of eternity how long will such an American-led monetary order last, I answer with Bismarck's phrase that we must leave some future problems to our grandchildren.
- 4. Sufficient unto the day is the evil thereof. The evil is inflation. I affirm that a convertible dollar is more likely to end the global inflation than a money stock rule and central bank open market operations. I affirm that nothing but a real money, a convertible dollar, will end the inflation in the western world.

Professor Friedman, I trust that you have come this far and that you now regard me as presumptuous, if not entirely wrong-headed. In the last paragraph of your letter, you insisted that "brutal frankness" would "promote effective intellectual discourse." I agree and it is with the most profound respect for you personally and for your work that I took up my pen to answer your letter.

You promised me that we might get together again in Washington, New York, or Chicago. I would welcome the opportunity. Just set the date.

My best personal regards to you.

Léwis E. Lehrman