Rose: Hello, this is Rose Friedman inviting you on behalf of Instructional Dynamics, to another of our biweekly interviews with Dr. Milton Friedman Professor of Economics at the University of Chicago. We are taping this interview on Friday, Nov 20th, 1971. Why don't we start with any monetary developments, has there been any change? That's work commenting on?

Dr. Milton: Well that's an easy good one to start with because so far as I can see there has been very little change. The various monetary aggregates have continued in their essentially low rate of growth, or negative rate of growth, since my last tape. The latest figures, again show, that the quantity of money defined narrowly, that would of been declining on the average, over the past several months. The only new thing that might be worth recording in the monetary development, is not a fact but statement. A week or so ago, Mr. Arthur Burns the chairman of the board, appeared in New York, at a meeting, at the New York Stock Exchange, with some of the leading members of the security firms. Now I have seen a copy of his statement, but also I happen to be in New York shortly there after, and talked with one of the people who had been at the session and these statements agreed that first, Mr. Burns went to great lengths to try to reassure those among his audience, who were concerned about the declining, about the slow rate of growth or the decline in the quantity of money, he stressed that this was to be regarded as a temporary departure from a moderate, from a path of moderate rate of growth in the quantity of money, and indicated that he expected the moderate rate of growth to be resumed shortly. He was also at considerable pains to try to quiet the apprehensions of those people who were concerned that you might see another monetary explosion, on the opposite end, such as you saw in the first seven months of this year. Here again, he repeated the statement he has made many times to congressional committees and others, that the fed will not be the architect of a new inflation. So, there is no doubt that his announced intention and expectation, is to have a fairly moderate rate of growth in the quantity of money over the coming months. Then he regards the recent slow rate of growth, or negative rate of growth, as a correction of earlier excesses, the excesses that he admitted In his testimony, before the joined economic committee in Chennai was a mistake, and that therefore what he is apparently aiming for is something like an average rate of growth in the neighborhood of five or six percent. The question remains of course, whether he will achieve it. The actual performance, the actual behavior of the quantity of money or other monetary aggregates over the past nine months, nine, ten months, have not been what he in advance, at that time said, and therefore we have to be concerned whether his future performance, and the future performance of the system will be closer to their announced statements in their past performance. I find this one a very hard one to answer, as I've stated in pervious tapes, my conjectures, my feelings are rather pessimistic. I believe that when and as the downward tendency-- the recent softness in interest rates is reversed, the fed will be in an extremely difficult position, having accepted the logic of setting controls on the prices, on wages, there is no stopping point in principle. If it is appropriate to control those, it is equally appropriate to control the interest rate. If it is appropriate to control the short-- interest rate, the fed is in a box. It's possible, as I've stressed before, to hold down prime rates, consumer credit rates, and other administered rates, but how do you keep the treasury bill rate from going up? That's going to be the hard nut for the fed to crack. I hope Mr. Burns is able to carry through on his determination of turning the money supply around, getting it growing, and also preventing it from going to

rapidly, but I remain skeptical, that he will in fact achieve that over the next year.

Rose: How do you interpret the recent actions of the pay board and the price board?

Dr. Milton: Well there certainly has been a lot of noise in the newspaper, and a lot of fuss and furry over, over those two, particularly of course over the pay board, with the much dramatized elegit dispute, between the labor members on the one hand, and the employer and the public members on the other. On the whole, this seems to me to be much a do about nothing, a lot of noise, a lot of sound, and furry, but not much behind it. The newspapers reported, a ten to five vote on the part of the employer plus the public members against the labor members, to permit no retroactive pay increases. This got a great deal of attention, the labor members were going around indicating how dissatisfied they were with what was going on, muttering about withdrawing in the (mumbles). I believe that was all play acting. The fact of the matter is if you look further down in the story, look to paragraphs 13 instead of at the headlines, what the pay board actually agreed to, was that they would not, as a general rule, permit retroactive pay increases, except in cases A, B, C, and D, and in my judgment the exceptions, account for the great bulk of all cases that will come before them. So that if you were to state directly what they did, they agreed that they would approve the great bulk of all retroactive pay increases. I believe what happened is that the trade union representatives got exactly what they wanted, that you had something of a deal as it were, between the trade union representatives and the others, were by the trade union representatives would get the substance but not the form of what they wanted, and on the other hand, they would have the advantage of appearing to have been over ruled and be on the outs with the others. I think that is clearly confirmed by the meetings of the AFL-CIO down in Miami, at which there was a lot of noise and talk about opposition to the pay board, rulings about refusal to cooperate with it, and so on, and yet, there was no sign whatsoever, of any intention by the trade union officials to walk off the board. I doubt very much that they will do so. They will not do so, both because they are in effect exerting far greater influence by being on the board than they believe they would by being out, off the board, second because they are in essence getting what the want, and third because they will feel, it seems to me, that it will be politically advantageous for them, for Mr. Nixon, if they were to walk-out off of a pay board. Mr. Nixon could then run his 1972 campaign, as a campaign against the lack of social responsibility and patriotism of the trade unions. He, after all, doesn't have very many votes to get him on trade union officials, and he might get considerable number of votes, even among the members of the trade unions, by attacking the trade union officials. So I believe that Mr. Meanie and his fellows will believe that is it from their point of view politically undesirable to walk-off. Consequently, I think what we will see on the pay board is it continues. Spade of headlines and talks about disputes between the various groups, but not really very much action. Again, that's further confirmed a little bit, by what appears to have been the decision to approve the coal contract, with it's first year of rise, very, very much higher than the 5.5% that the pay board said was going to be as a guideline. It's an exception, it's a special case, it's a problem of putting it in line, you can always find excuses. So I continue to believe that in the main, what the pay board will do over this coming year, is largely to approve the increases and arrangements that would of occurred anyway. Now when we come to the price board, there you certainly have an extraordinary confused set of statements about how you're going to determine prices. In the first place, there rules say that--, the same thing over twice in two different forms. They say on the one hand, that no price increases will be granted, that increase profit margins. Therefore the profit margins, per unit, per unit margin on an item sold has to

be held constant. Second they say, that costs may be passed through after allowances made for increases in labor productivity. That is to say, that if costs per hour of a concern goes up by 10%, they will not regard that as justifying a 10% wage increase, a price increase, unless allowances first made for improvements in productivity. But that comes down over again to saying that the margin is going to be kept constant, because essentially what that means is that they will approve a price increase, equal to the increase in cost not per hour, but per unit of output, but the difference between the increase in cost per unit of output, and the increase in cost per hour, is precisely the gain in productivity. That is to say if wages go up 10%, and the cost per unit go up 5%, then there has been a 5% increase in productivity. But, going back to my earlier point, if cost per unit goes up 5% and prices go up 5%, that means that the margin has stayed constant. Thus, the rule of constant margins, and the rule for allowing for productivity changes, are so far as I can see, identically the same thing stated in two different forms, but in a way which is calculated to promote a maximum of confusion. It's very hard to make any sense out of this, except in one way, and that is that the price board is fully aware that one of the dangers is wide spread vigilante action by consumer groups that will harass and pester every retailer, every seller. Now, if they announced that no price, no price could go up by more than 2.5%, it would be very simple and easy for these vigilante groups to determine whether a particular price was--, rule was being violated. On the other hand, if they have this complicated sophisticated formula, which may permit anything, then it's going to be very hard for anybody to tell, including the retailer himself, to tell whether or not he is in violation. This point comes out in a slightly different way that may be, may bring it out, here's American Motors. They requested a set of price increases, which by some magic action and came out to just 2.5%. Their request has been approved by the pay board, and they give the pay board a pat on the back--. I'm sorry, the price board. I give the price board a pat on the back for acting so quickly, because in this way it is reducing the adverse affect is has business activity by providing quick decisions. But now, what does that decision mean? Number one, it does not mean that American Motors has permission to raise the price on every individual car, by 2.5% and no more. Not at all. So far as this permission is concerned, it may raise the prices on some cars by 10%, and lower the prices on other cars, so long as some kind of an average, and I am not absolutely certain what kind of an average, but presumably it's a base weighted average, some kind of an average price increase works out to 2.5%, that is provided, that all the cars they sell bring in 2.5% more revenue than those--, that same mixture of cars would of brought in at the former prices. That's very different from 2.5% on each particular item, and it's obviously something that, it is almost impossible to check on, by an individual purchaser, or by an individual dealer. Indeed it's not fair that you can know, that you can know that that's going to be the case, ever until six months afterwards, because supposed they raise the price very--, more on some cars and less on others, then what the average is depends on the volumes of sales of the two groups of cars, and if the higher price doesn't cut down sales of that item as much as expected, it may be, that what you think of in advance, will not happen. That is one dimension of it. The fact that you do not have, a rise in the price, of every individual item. Another dimension of it is, that this is only permission for American Motors to raise it by as much as an average of 2.5%, it doesn't follow that that permission will be used. American Motors will undoubtedly wait to see what Chrysler proposes, and then also what General Motors proposes, because it must obviously watch competition, as well as what is has been permitted. Chrysler has apparently permitted a request for-- in price increases, and the gossip is that this request is for a much higher average rate of pricing increase than American Motors. If so, I wouldn't be surprised at all if the price board would get some headline millage, by cutting it back. They will want it, obviously, and here-- the same thing will

come to the pay board. They all will want headlines suggesting that they are being tough. While in fact, they all recognize that they will do the least harm to the economy, if instead of being tough they more or less let prices and wages change as they otherwise would. We will see more of all of this noise and confusion over the next few months. The interesting question will be not so much what they actually do to the prices, because as I have stressed in these comments that's going to be difficult to know and probably will be less than it seems. The interesting question will be how rapidly the uncertainty, which now exists among the business community with respect to the decisions of the price and the pay board will be resolved, and whether when and as it is resolved we see a resumption of a rapid rate of growth of business spending. that's what I think, the near term course of business depends on. I might note, before I-- although this has nothing to do with the price and pay board, that a second revision of the third guarter GMP figures has come out, and this revision once again happened in the second quarter, has substantially raised the estimated rate of growth, of real output. The original report, the original estimate, had real output in the third quarter growing at 2.9%, the revised version has real output growing at 3.9%. That's still considerably below the final revision of the second quarter estimate, which was 4.8 or 4.9% if I remember rightly, but it's not so much below the intermediate revision. So as yet, the best thing you can say about the third quarter is that the preliminary indications continue to show a slower rate of growth than you had in the second quarter, but the figures still are fairly uncertain.

Rose: Since we will have a backlog of questions, lets take this opportunity to try and clean up a few of them. One recent question that just came in, asks you to comment on our refute, the article called Freidman and the Flat Tire, in the March to April issue of the Financial Analysts Journal of this year, by Alf Marshall.

Dr. Milton: I would be glad to, if I had seen it, but I haven't seen the article, and I though Alfred Marshall was dead, roughly 40 years. I would say regard nothing of a greater honor than having the Alfred Marshall write an article about my work. I reply to this simply to mention that I haven't seen it, but the letter came in too late for me to get to the library to look it up, but I will as soon as I can look it up, and then I will reply.

Rose: Another letter that has just come in, starts, I remember your initial enthusiasm for the appointment of Arthur Burns, and share your disappointment in the apparent modification of his economic philosophy. I have heard Dr. Burns quoted as saying that he has, "less of a monetarist" now then when he took office, and wonder whether you have any knowledge of the influences which have changed him. From your vantage point, can you comment on the influences, which seem to be changing him.

Dr. Milton: No doubt, the major influence which has affected Arthur Burns, has been, being in the position of having to act, being chairman of the federal reserve. As I mentioned earlier, in respect to the comments which he made to the securities people, he clearly continues to place great emphasis on the behavior of monetary aggregates. This has show up in a number of his comments and the statements I've quoted before, from his testimony in July before the joined economic committee, when he traced the behavior of the monetary aggregates and expressed the view, that the fed had made a mistake in permitting a very rapid rate of growth during the first six or seven months of this year, in the vain hope of holding down interest rates. Yet, there is no doubt that many of the views which he has expressed, since he came into office as chairman of the fed, are rather different from views which he expressed before. The most dramatic

change of course, has been in his attitudes towards incomes policy price and wage control. There has been no more effective invigorous critic of prices and wage control or of incomes policy, than Arthur Burns before he became chairman of the fed. He criticized during the late 60's, very vigorously the guidelines policy of the Johnson administration, wrote some articles, which are extraordinarily perceptive and effective in portraying the evil and difficulties of the policy. Yet, ever since, oh well over a year ago, a year and a half a go he has been publicly advocating the adoptions of incomes policy, including some kind of governmental intervention into wages and prices. Why the shift? As I have stressed on these tapes before, the rational explanation of the shift is the distinction between incomes policy and when basic forces our inflationary, an incomes policy which is intended to produce a transition from a high level of inflation to a lower level of inflation. But besides these analytical differences, there is no doubt that his institutional position and his emersion in the Washington climate must unquestionably have affected him, as it affects everybody as it is hard to believe that anybody could fail to be affected. How have these affected him? In the first place, the Federal Reserve Board, the Federal Reserve System is a large comberous machinery. There are many people involved in it, it has a long history, it has a great deal of inertia, it has developed certain methods of acting, and it has proved, it has turned out that Arthur Burns has been far less effective in changing that pattern of operation that I, in advance expected that he would of been. As I look back over what he has done these past two years, I think one of the great problems is that he made no changes, essentially, or few changes, essentially no major changes in personnel. The people other than Arthur Burns, who are operating the Federal Reserve System today, are precisely those who were operating it before. That the New York desk is being managed by Allan Holmes, who was managing it all along before. The research division in Washington is headed by precisely the same man who was heading it before. It is very difficult I believe, to put a new policy in without new people and I believe part of the problem has been precisely that it has been difficult to turn the administrative machinery around. Thus I have no doubt in myself, and as Arthur Burns himself stated, that he would of preferred a very different pattern of money supply changes this year. But nonetheless, you got what you did get, because the machinery was not turned around, was not changed, was not adapted. Again let me stress, this is not necessary, it is not inevitable, there is not the slightest doubt, but that the Federal Reserve could produce a much more steady pattern of money supply growth if it's policies were changed. I might introduce at this point on that issue, a little plug for the latest issue of the Federal-- of the bullet in to the Federal Reserve bank of St. Louis, which has an extraordinarily valuable and important article by three people, Burger, Kay-lish, and Bab, on the alternative way to control money supply and some simulated tests of how well you could do it, and how closely you could achieve your objectives. So I remain entirely convinced that it's possible. Having the difficulties internally, it is understandable that a male in that position as all central bankers have done, tries to find other explanations and justifications, other ways of attacking the problem. He was subject to great public pressure, he recognizes the political pressure against stepping hard on the monetary brakes, because of the unemployment it might produce, yet he strongly wants to stop inflation, so it's very natural that he looks for other ways out, especially ways that involve other people doing something. That is why central bankers have almost always tended to blame either fiscal policy of the tax--, spending authorities, or the unions and concentrated industry for the problems that they haven't themselves been able to handle.

Rose: We had three questions on credit, that you answered in part, but we never did get to the third question, to what extend can the monetary authorities influence the price and quantity of credit?

Dr. Milton: Well the price of credit, is the interest rate, and the quantity of credit, as I indicated in my intro to the earlier thing, includes a wide range of things like total mortgage debt, bonds outstanding, short term paper, etc, etc. The most important thing, that is important in answering this question, is to distinguish between the price of credit in nominal units and in real terms, and the quantity of credit, in nominal units and in real terms. Let me make clear of these distinctions. If a bond carries an 8% coupon, and lets say that is also it's yield, at a set par, that is selling at par, then the nominal yield is 8%. If prices go up at the rate of 5%, lets say during a year, then the real yield, the yield corrected for the depreciation and the value of the bond, is only 3%, that is to say that if you bought a bond for a hundred dollars at the beginning of the year, received eight dollars during the year, you would have to take five dollars of the eight, and add it to the hundred, in order to have at the end of the year, the same real purchasing power over goods and services in your principle that you did before, and you can only spend three dollars, while still being as well off. Consequently the nominal rate is measured in whatever, in dollars, the real rate, corrected for price changes. Similarly, the nominal quantity of credit is the total quantity expressed in dollars. The real quantity of credit is what that will buy, in terms of purchasing power. This distinction is extremely important because the monetary authorities can exert a very great influence over both the nominal price of credit, the nominal interest rate on the one hand, and the nominal quantity of credit on the other. Let us suppose I have monetary authorities, whose start to increase the quantity of money very rapidly, to begin with, this will tend, for a brief period, to lower nominal interest rates, through what is called the liquidity effect because generally speaking the way in which they will increase the quantity of money is by buying government securities. Buying securities just increases the demand form, raises their price, lowers the yield. But this is a temporary effect, at most it will last something like six, nine months, that usually what is has in the past, but then, the effect goes the other way because the increase quantity of money causes people to try and spend more, it increases activity, it causes an increase demand for loans, and sooner or later it causes prices to start rising, and as prices start rising you have the effect that I was discussing a moment ago, where by, people demand a higher nominal yield in order to get the same real yield. Take a specific hypothetical case, lets suppose the quantity of money were to be raised at 10% a year indefinitely, and that output was going up at about 3% a year, on the average. Then this would mean a 7% per year rate of rise in prices roughly, a little different from that because demand for money might be changing, but roughly 7%, and then in that case a real yield of 3% would mean a nominal yield of 10%. You could say therefore, that under those circumstances the monetary authorities had made the price of credit 10% in nominal terms. But the monetary authorities have a much less influence on the real price of credit. In general over long periods of time, that real price of credit is affected by factors other than monetary factors, its affected by the productivity of capital, by the desire of people to save, by those fundamental underlining forces. The monetary part of behavior would influence those a little, in ways that are more sophisticated and complicated than I think it pays to discuss here, but very little, and roughly speaking I think you can say, that except for transitional effects, when the monetary authorities change their direction, they have very little affect on the real right. In those transitional periods, they do, when they first start to increase the quantity of money more rapidly, they lower the real rate because the nominal rate goes down, instead of up. If they tighten money, if they slow down the rate of growth of the quantity of money they will initially have an upward affect on interest rates that will raise real rates, and indeed one can interpret these changes in real rates, as being the reason why the monetary authorities, or the channel through which the monetary

authorities create recessions and booms. Similarly with the nominal quantity of credit. If prices start rising at 10%, that will mean that the total amount of bonds in dollars will tend to be going up at 10%, the total amount of mortgages in dollars will go up 10%, the total volume of credit, the nominal volume of credit therefore can ultimately be pre-well determined by the fed. But the real quantity of credit, again depends on these basic underlying forces, and is not very much affected my monetary policy.

Rose: I'm afraid again, we're going to have to hang on to the rest of our questions, and hope to answer them at a future date. Thank you very much Professor Friedman. Remember subscribers if you have any questions or comments for topics you would like to hear discussed in this series, please send them to Instructural Dynamics Incorporated. 166 East Superior Street, Chicago Illinois, 60611. Dr. Friedman will be visiting with you again in two weeks.