## The Wage-Price Control Experiment— Did It Work?

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Social scientists often envy colleagues in the natural sciences for their ability to conduct carefully controlled laboratory experiments. Economists must all too often rely on the capricious laboratory of history to generate data which can be used to test their theories. August 15, 1971, marked the beginning of an incomes policy experiment in the United States that will provide considerable grist for the economist's mill.

The new economic policy package included multiple macropolicy manipulations, ranging from excise tax remissions to import surcharge impositions; but its most dramatic and controversial element was undoubtedly the wage-price control program. The program consisted of an initial 90-day freeze (Phase I) during which the cumbersome administrative machinery was established which controlled prices and wages during the following 14 months (Phase II).

The adoption of wage and price controls represented a major reversal in the economic policies of the Nixon Administration. The Administration's original game plan had relied on traditional monetary and fiscal measures to manage aggregate demand. However, the persistence of inflationary pressure in the face of politically un-

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acceptable rates of unemployment forced the Administration to follow in the footsteps of many Western European countries and adopt an incomes policy.

The short-run outlook for the program seemed encouraging since controls tend to operate most efficiently under conditions of excess supply. Moreover, the suddenness with which the controls were adopted precluded any anticipatory wage and price increases. The longer-run prognosis was, however, less favorable. Economists Lloyd Ulman and Robert Flanagan concluded their systematic review of incomes policy experiments in Western Europe with the observation that "in none of the variations so far turned up has incomes policy succeeded in its fundamental objective . . . of making full employment consistent with a reasonable degree of price stability." More ominously, their study warned that controlled periods "were frequently followed by wage and price explosions which sometimes blew up the policies themselves." With Cassandraic precision, the United States is presently experiencing price explosions that are being widely interpreted as resulting from the abandonment of Phase II. While the coincidence in timing between the recent price spurt and the introduction of Phase III seductively suggests causation, several alternative, and perhaps more plausible, explanations are available. More than two-thirds of the recent price increases are accounted for by food prices. These prices have predictably skyrocketed in response to agricultural and political events totally unrelated to the controls program. These substantial and highly visible price increases have created a clamor for more stringent controls from the public, the Congress and, of course, some professional economists. The present pricefixing frenzy seems predicated on the belief that inflation was substantially reduced during Phases I and II and, perhaps more important, that the controls program was directly responsible for the abatement of the inflation. As we shall see, neither of these assertions is supported by a closer examination of the evidence.

## Actual Inflation during Phases I and II

The actual behavior of prices and wages before and after the imposition of the wage-price control program is displayed in Table 1. The high unemployment rates of late 1970 and early 1971

	Pref	reeze	Post	freeze		
Period Year Months	1970 5–12	1971 1–8	Phase I 1971 9–11	Phase II 1971–1972 12–12	Average, pre- freeze	Average, post- freeze
Consumer price index Wholesale	5.09%	3.85%	1.70%	3.49%	4.46%	3.16%
price index	1.62	5.31	-1.29	6.94	3.46	5.38
Wage index	7.28	7.19	2.16	7.25	7.23	6.29

Source: Monthly Labor Review and Employment and Earnings, Bureau of Labor Statistics, U.S. Department of Labor.

led to the widespread expectation that excess supply pressures would be felt in both commodity and labor markets. This expectation was confirmed by movements in the consumer price index, which declined from a 5.09 percent inflation rate during the last eight months of 1970 to a 3.85 percent rate during the first eight months of 1971. On the other hand, the wholesale price index, which had shown a modest 1.62 percent increase during the final eight months of 1970, showed a marked increase of 5.31 percent during the first eight months of 1971. Wage rate increases showed almost no abatement during the corresponding periods. When the effects of the temporary reduction in mortgage interest rates on the consumer price index are taken into account, the overall pattern of prices prior to the freeze suggests a continuation of inflationary pressure in the face of a costly 6 percent rate of unemployment.

The recalcitrance of economic events and the rising political dissatisfaction with those events forced a frustrated Administration to reverse its course dramatically and adopt a wage-price freeze.

During the 90-day Phase I period, the consumer price index advanced at an annualized rate of only 1.70 percent while the wholesale price index displayed a rate of deflation of 1.29 percent. Wages advanced at the modest rate of 2.16 percent. The impressiveness of the decline in the inflation rates during the 90-day freeze period was matched only by the explosion of those rates during the first 30 days of the Phase II controls. In a single month, the consumer price index reverted to a 4.29 percent annual rate while the

wholesale price index and the wage index jumped to 9.26 percent and 18.77 percent, respectively. It appears that the "catch-up" provisions during this single month virtually vitiated the salutary indications of the entire Phase I episode.

When the full 16-month prefreeze record is compared with the 16-month postfreeze record, there is little evidence to support the view that inflationary pressures eased substantially. The rate of increase in consumer prices and in wages was about one percentage point lower in the control period, whereas the wholesale price index displayed a rate of increase almost 2 percent higher in the same period. By way of comparison, the unemployment rate averaged 5.68 percent during the 16-month prefreeze period and 5.64 percent over the entire control period.

## Measuring the Impact of the Controls

What does all this evidence suggest about the efficacy of the wage-price controls program? Unfortunately, very little. Before we can evaluate the specific impact of Phases I and II on prices and wages, we must first establish a counterfactual benchmark or, in the language of the natural scientist, a "control condition." The counterfactual benchmark provides us with an answer to the question, "What would have happened to prices and wages in the absence of the wage-price control program?" By comparing the outcome of the actual historical experiment with the counterfactual benchmark we can determine the extent to which the wage-price control program actually affected the course of prices and wages. The reliability of our conclusions will thus depend heavily on the accuracy with which we can predict how prices and wages would have behaved in the absence of the incomes policy program. Such predictions would typically be provided by conventional structural econometric models of wage and price behavior. We, however, have chosen to derive counterfactual predictions from newly developed time-series models. The major feature of these relatively simple models is that they utilize only the past history of inflation rates to predict the future. . . .

The forecasts that are presented in Table 2 represent predictions of prices and wages made at the time of the freeze for the Phase I period, the Phase II period, and the entire 16-month controls period. Since these predictions rely solely on prefreeze-period information, they are completely uncontaminated by the events of the controls period. As such, they are presented as our best estimate of how prices and wages would have behaved during the period August 15, 1971, to December 15, 1972, had the wage-price control policy never been introduced. The difference between the actual behavior of prices and wages and our counterfactual predictions therefore represents our estimate of the effects of the incomes policy experiment.

The results, which are reported in Table 2, are striking. The 90-day Phase I freeze appears to have had the effect of reducing the rate of increase in the consumer price index by almost 2 percentage points. Similarly, the rate of increase in the wholesale price index and in the wage index was reduced by almost 5 percentage points during the first 90 days of the incomes policy experiment. On the other hand, prices and wages appear to have been increasing faster during the subsequent Phase II period than they would have increased in the absence of the controls program.

The volatile wholesale price increase shows the greatest perverse effect. Wholesale prices appear to have risen 3 percentage points faster during the Phase II period than would otherwise have been the case. Even when the extraordinary December 1972 observation (which reflects the spurt in food prices) is eliminated from the series, the effect on wholesale prices is still almost 1.5 percentage points.

## Did the Controls Work?

For the controls period as a whole, the results suggest that the consumer price index was un-

TABLE 2. Comparison of Actual and Counterfactual Predictions of Annualized Rates of Change in Prices and Wages

	Phase I	Phase II	Average, postfreeze
Consumer price index			
Actual	1.70%	3.49%	3.16%
Predicted	3.65	3.07	3.19
Estimated			
policy effect	-1.95	0.42	0.02
Wholesale price index			
Actual	1.29	6.94 (5.52) <sup>a</sup>	5.39 (4.16)a
Predicted	3.95	3.95 (3.95)a	3.95 (3.95)a
Estimated			
policy effect	-5.24	2.99 (1.57) <sup>a</sup>	1.43 (0.21)ª
Wage index			
Actual	2.16	7.25	6.29
Predicted	7.13	7.11	7.11
Estimated			
policy effect	-4.97	0.14	-0.82

<sup>\*</sup> Omitting December 1972.

affected by the imposition of price controls. A similar comparison for wholesale prices indicates that the controls had the effect of increasing the rate of inflation above the rate that would have prevailed in the absence of controls. The controls did, however, reduce the rate of wage inflation by about 0.8 percent.

To summarize, our examination of the recent incomes policy experiment has been addressed to two distinct issues. First, has there been an observable moderation in wage and price inflation since the announcement of the controls policy? Second, were the observed rates of wage and price inflation different from what they would have been in the absence of controls? The answer to the first question requires a direct look at the facts. The answer to the second involves a combination of fact and conjecture.

The particular facts we have examined yield somewhat contradictory answers. If inflation is appropriately measured by the consumer price index, it appears that the rate of inflation slowed by about 1.3 percentage points over the 16-month period of price controls. If, on the other hand, the wholesale price index is regarded as the ap-

propriate inflationary indicator, inflation appears to have speeded up by almost 2 percentage points. On the basis of the single wage index examined, we can conclude that the rate of wage inflation slowed by about 1 percentage point.

On the broader issue of the impact of controls, our findings strongly contradict the prevalent notion that controls have had a significant effect on reducing the rates of wage and price inflation. While the rate of increase in wages appears to have been slightly reduced by the controls, the rate of increase in prices was either unaffected or actually accelerated by the controls program. A number of factors could account for this seemingly perverse effect of controls. Certain sleepy sectors of the economy could actually be awakened by the announcement effects of the controls and, at least in the short run, raise prices to the control guideline levels. Other sectors might attempt to raise list prices in anticipation of future controls. List price increases would show up in the wholesale price index but might not be fully reflected by the consumer price index, which is based on effective market prices. Most important, however, the government probably undertook more aggressive monetary and fiscal actions believing that the controls would dampen inflationary pressures. Indeed the Council of Economic Advisers asserted in the 1972 Annual Report, "The establishment of the direct wage-price controls created room for some more expansionary measures." Thus government fiscal and monetary actions may well have served to feed the inflation which the controls were meant to fight.

Such a policy would be acceptable to many if the controls, in conjunction with more expansionary policy measures, reduced the rate of unemployment below what it would have been in the absence of the controls. That is, the controls might be judged successful if they had simply maintained the inflation rate while reducing the rate of unemployment.

In order to examine this possibility we constructed a time-series counterfactual prediction for the rate of unemployment. The results reported in Table 3 suggest that the rate of unemployment was reduced by only 0.1 percent below what it would have been in the absence of controis.

On the basis of the particular counterfactual models we have constructed, we must conclude

TABLE 3. Comparison of Actual and Counterfactual Predictions of the Unemployment Rate

	Phase I	Phase II	Average, postfreeze	
Actual	5.63%	5.58%	5,59%	
Predicted Estimated	5.76	5.72	5,73	
policy effect	-0.13	-0.14	0.14	

that the incomes policy experiment has been a total failure when evaluated by its effects on several broad indexes of price and wage inflation. as well as by its effects on unemployment. The Phase I freeze did bring about a 90-day reduction in inflation rates, perhaps because of the forceful and unexpected manner in which it was introduced. However, the Phase II period exhibited inflation rates higher than those which would have been observed had there not been a wageprice control program. Our findings must therefore be added to the growing body of evidence from other countries that suggests that controls are ineffective in reducing inflation over the longer run.

To argue that the incomes policy experiment did not affect broad price indexes is not, however, to argue that controls had no effect on prices. Even a casual examination of the components of the price indexes reveals the considerable lack of homogeneity in the behavior of the components. What is most likely is that controls succeeded in reducing some prices below what they might otherwise have been while creating conditions for other prices to be actually higher. It is therefore quite possible that the controls have left us with the worst of both worlds. By affecting relative prices the controls may well have produced a misallocation of resources that has resulted in a lowered real output. By failing to affect the general price level, the controls may have contributed to monetary and fiscal conditions that will prolong the costs of both inflation and unemployment.

Given these probabilities, it is particularly disturbing to witness the political pressure building up again for another round of controls. While the results of this study are necessarily conjectural and could be modified by further work, there

appears to be enough agreement on the potentially negative effects of controls for the burden of proof to be shifted to those who advocate their extension. The ultimate responsibility for inflationary pressure must come to rest on the doorstep of the fiscal and monetary managers. So long as wage and price controls continue to be regarded as a political panacea, our attention will continue to be deflected from the real issues at