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WHY WAGE-PRICE CONTROLS FAIL: A “THEORY OF THE SECOND BEST” APPROACH TO INFLATION CONTROL

JUSTICE RICHARD NEELY*

I. INTRODUCTION

The preeminent economic challenge of our time is to control inflation while simultaneously reducing high levels of unemployment. Although in the first two quarters of 1976 inflation appeared to have subsided to its normal Post-World War II, Pre-Vietnam level, the cost of this temporary remission, namely serious recession in 1974-75, was politically unacceptable. Among lawyers and economists in government the debate concerning methods for the continued control of inflation narrows to whether inflation should

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The author wishes gratefully to acknowledge the invaluable assistance of his law clerk, Richard Ekfelt, B.A., Yale University, 1971, J.D., University of Virginia School of Law, 1974, without whose efforts this article would have languished. Any errors in economic theory, however, are exclusively those of the author.

¹ Despite considerable reservation, the Nixon Administration careened undaunted down the road to wage-price controls. C. Jackson Grayson, Jr., Chairman of the Price Commission, in a statement before the Joint Economic Committee on April 18, 1972, reported:

The Price Commission received a double mandate from the President, and subsequently from the Congress. One objective was to slow the rate of inflation in the United States to a level with which American productivity could keep pace. The second objective was to achieve this without impeding the recovery of our ailing national economy to prosperity and full employment.

Neither of these mandates was—nor can it be—separable from the other. To gain a materially reduced cost of living by inhibiting the revitalization of the economy and increased employment would have been a travesty . . . The twin objectives necessarily became one: achievement of a dynamic full-employment economy, free from both the fact and the psychology of inflation.

be controlled through the monetary mechanism, i.e., through expansion and contraction in the money supply, whether it should be controlled through direct governmental regulation of wages and prices, or whether it should be controlled through some combination of both.

Even among those who have no philosophical objection to government intervention in private economic life, broad skepticism exists concerning whether government is capable of regulating wages and prices over any protracted period without seriously distorting resource allocation by destroying the normal price structure and creating artificial prices, shortages and reductions in the quality of goods. On the other hand, there is equal skepticism concerning monetary remedies. It is generally agreed among earnest students of the subject that the 1974-75 recession in America, with unemployment exceeding 9%, was a direct result of the Federal Reserve Board's attempt to control inflation by reducing the rate of growth of the money supply.² This prolonged recession cast doubts upon the efficacy of the monetary approach and consequently appeared to make government control of wages and prices an increasingly acceptable, if highly unpleasant alternative, despite historical dissatisfaction with direct governmental control of the market.³

Our experience during the Nixon administration with wage-price controls⁴ was disastrous,⁵ primarily because of broad-based

² Cleveland & Brittain, "A World Depression?"; *Foreign Affairs*, vol. 53, no. 2, Jan. 1975, at 223-241. For a West Virginia verification of the general theory, see J. A. Stern, *Annual Report of The Wood County Bank*, Parkersburg, W. Va., April 1975.

³ In an open letter to President Nixon, Congressman Wright Patman (D-Texas), Chairman of the House Banking and Currency Committee, stated that the stabilization effort was not working as Congress had intended and the program was being administered inequitably. He called on the President to use his authority to overcome what he described as "massive shortcomings" in the program, among which he listed: (1) the Cost of Living Council failed to comply with the intent of Congress when it exempted interest rates from the controls; (2) the regulations were too complicated to police; (3) rent regulations permitted large increases in rents; and (4) the stabilization committees were not holding the number of public hearings intended by Congress. *New York Times*, Mar. 11, 1972, at 32, col. 2.

⁴ Economic Stabilization Act of 1970, Pub. L. No. 91-379, Title II, Aug. 15, 1970, 84 Stat. 799 (Title 12, §1904 note) and Pub. L. No. 91-588, Title II, §201, Dec. 7, 1970, 84 Stat. 1468 (Title 12, §1904 note). The Act was extended five times before

resistance from organized labor, who maintained that unionized workers were shouldering the entire cost of wage-price stabilization.⁶ This article will argue that the process of equitably establishing wage rates is so complex that wage-price controls cannot adequately set wage rates throughout the entire economy without creating politically unacceptable inequities and market distortions which will inevitably lead to rejection of all direct controls. Accordingly, it will be argued, it is impossible to achieve an optimum result in terms of low inflation, and near full employment, through direct controls. Therefore, the appropriate approach is to work towards a "second best solution" which imposes wage-price controls in a limited number of industries, combines controls with the restrained use of monetary tools, and lowers inflation to an acceptable, but far from perfect level.

This article is written for a law review instead of an economics

it expired on April 30, 1974. Economic Stabilization Amendments of 1971, Act Dec. 22, 1971, Pub. L. No. 94-210, §1, 85 Stat. 743; as amended by Act Apr. 30, 1973, Pub. L. No. 93-28, §§1-8, 87 Stat. 27-29.

Basically, the Act authorized the Chief Executive to issue orders and regulations to freeze wages and salaries at levels not less than those existing on May 25, 1970. The Pay Board, created to implement the stabilization program, limited annual salary increases to 5.5% and mandated Board approval for all salary increases affecting 5,000 or more employees.

⁵ "[T]he wholesale price index, which frequently affects the consumer price index, actually rose at a faster rate during the control period than during the pre-control period. In December, 1972, during Phase II, the wholesale price index was up 6.5% from the prior year; this compares with substantially lower year-to-year gains of 4.0% in December, 1971 and 2.3% in December, 1970 when no controls were in effect. Indeed, in December, 1972, the last full month of controls, wholesale prices rose at a 1.8% level, the largest increase since 1951, and well above the pre-control period." L. F. Doppelt, *Phases I and II: A Look Backward*, 24 *MERCER L. REV.* 575, 576 (1973). It appears, however, that the consumer price index fared substantially better.

⁶ At the 1972 AFL-CIO winter meeting in Bal Harbour, Florida, top labor leaders attacked the economic control program of the Nixon Administration calling it "unfair" and "weighted" against lower-paid workers. The Executive Council of the AFL-CIO issued a statement saying: "There is no fairness and equity in the Administration's so-called program It is weighted against the workers and their families, with the greatest burden on the backs of those at the bottom of the economic ladder, who are least able to protect themselves." *New York Times*, Feb. 15, 1972, at 14, col. 3.

journal primarily because, in one sense, it is fruitless to discuss economics with economists. Compared to lawyers, economists have little influence upon economic policy. If there is a "ruling class" in the United States in the field of economics, it is composed of lawyers and not economists. While economists testify before Congress, economic legislation is written by the lawyer staff members of Congressional Committees. Accordingly, lawyers involved in legislative work should have some basic economic knowledge.

Ironically, it was probably this *basic* economic knowledge, as contrasted with a more subtle and sophisticated grasp of the subject which precipitated the failure of the wage-price controls.⁷ All of the evidence indicates, for example, that it was completely unintentional that the Nixon administration placed the lion's share of the burden of wage-price guidelines upon labor, rather than equally dividing the burden among all factors of production in the

⁷ See, J. Smith, *The Nixon Administration's Wage Controls: A Labor Viewpoint*, LAB. L.J. 532 (1973).

In making thousands of case-by-case decisions the Pay Board exercised awesome power over the prosperity, and the very existence, of business firms and local unions. However, this power was exercised without any of the customary safeguards against arbitrary abuse of power, and without any serious consideration of the need for such safeguards.

. . . .

The first erroneous decision was that public control over the wage determinations of labor markets could be exercised by persons inexperienced in industrial relations—who were ignorant of the actual operation of those markets they were assigned to control. This principle governed the selection of . . . virtually its entire staff, and the designation of its field representative—the Internal Revenue Service.

The second erroneous decision flowed from the first. It was the decision to attempt to apply a rigid ceiling of 5.5% to all wage increases after November 14, 1971. This decision ignored such realities of collective bargaining as:

1. The need of some employee units to "catch up" with prior inflation.
2. Traditional patterns of "tandem" bargaining.
3. The inequitable results for low wage earners.
4. Employers' needs for protection from loss of key employees to higher wage competitors in tight labor markets.

The third erroneous decision was that a system of public control over wages could be operated on a low-budget basis. The Pay Board staff never reached 200, including secretarial personnel. Board members, except the Chairman, were part-time. Lack of staff was probably the major reason the Board could not provide due process when it was compelled to become a case-deciding agency. *Id.* at 534-35.

economy.⁸ Partisan propaganda would have it otherwise, and would attribute the repressive nature of the wage-price guidelines to a Republican plot to enhance management at the expense of labor.⁹ However, while one should not put it beyond a business-

⁸ The Economic Stabilization Act of 1970 provided stabilization of "prices, rents, wages, salaries, dividends, and interest," and further contemplated that the guidelines would "call for generally comparable sacrifices by business and labor as well as other segments of the economy." Economic Stabilization Act of 1970 202, 203(b)(5), 12 U.S.C. 1904 (Supp. III, 1973), *amending* 12 U.S.C. 1904 (1970).

⁹ By March of 1972, the labor sector had become so disillusioned with the inequitable administration of the wage-price controls that three labor leaders resigned their appointments to the Pay Board: George Meany, President of the AFL-CIO, I. W. Abel, President of the United Steelworkers of America, and Floyd Smith, President of the International Association of Machinists, with Meany stating that "[w]e will not be a part of the window dressing for this system of unfair and inequitable government control of wages for the benefit of business profits." *New York Times*, Mar. 23, 1972, at 1, col. 8.

In a prepared statement for the press commenting on the labor walk-out, the AFL-CIO said:

Seven months of the Administration's so-called new economic policy—including four months of Phase II controls—have demonstrated that it is nothing more than a device to make the average worker and consumer both the victim and the goat, while the banks and big business pile up increasing profits.

In the guise of anti-inflation policy, the American people are being gouged at the supermarket and squeezed in the paycheck

The continuing, rapid rise of prices—such as February's [1972] 3.4 per cent yearly rate of increase in wholesale prices—reveals the emptiness of the wage control program.

. . . .
Slick rhetoric and double talk cannot hide these self-evident facts from the American people. There is no fairness, no equity, no justice in the Administration's economic program.

. . . .
. . . [Economic controls are] an effort, at the expense of personal and institutional freedom in this country, to avoid the measures, resisted by big business and other selfish interests—such as constructive tax reform—most needed to correct the consequences of [its] failure.

Having as we do a deep disbelief in and distrust of the aims and purposes of this Administration's economic and social policies, we intend at the least to free representatives of the A.F.L.-C.I.O. from any grounds for the inference of complicity in the formulation and execution of these policies. *Id.* at 34, col. 1.

One day later, Leonard Woodcock, President of the United Auto Workers resigned from the Board, stating, "The Nixon game plan is to take worker money and place it in the pockets of employers through both action and inaction." He called the administration of the Pay Board a "shambles." "Collective bargaining is paralyzed . . . and the IRS is inept." "We leave because the whole Nixon control system

oriented administration to engage in such a scheme, the objective evidence leads to the reasonable inference that the wage-price guidelines probably were not the result of any malevolent conspiracy.¹⁰

The very simplicity of the wage-price program implies that the theoretical framework of the legislation was based on the assumption that labor unions normally pursue wage increases only to the extent of increases in productivity because otherwise, a reduction in employment would occur which union leaders proclaim to be an unacceptable cost of higher wages. This basic and generally held economic assumption, which has been standard fare in undergraduate economics courses for the last fifty years¹¹ finds its origin in classical marginal productivity theory which postulates that employers will hire labor up to the point at which the productivity of the last worker hired is exactly equal to the income which that worker generates for the firm. This statement, for the sake of brevity, may be an over-simplification of the theory, but if it is true that no union is willing to accept any significant reduction in employment of its members in return for higher wages, then the most that a labor union can hope to accomplish in the area of wage increases is to guarantee that increases in productivity will be immediately translated into higher wages or non-economic benefits. The wage-price control structure was perfectly consistent with this traditional theory and failed because the theory fails.

One of the characteristics of the large, oligopolistic industries such as steel, automobiles and tires is known as "price inelasticity of demand". This simply means that the demand for such products is relatively insensitive to price fluctuations. A much higher price will not significantly decrease the amount of product purchased, nor will a much lower price significantly increase the amount of product purchased. It is generally recognized that in these oligopolistic industries both labor and management are capable of exploiting the inelasticities in the overall demand for the product,

is an abomination, and the U.A.W. cannot in good conscience maintain any connection whatsoever with the system." *Id.*, Mar. 24, 1972, at 25, col. 1.

¹⁰ The stated purpose of Congress for enacting the guidelines was not to enhance the position of any particular segment of the economy but rather to establish emergency measures to counteract the severe inflation that threatened the entire national economy. See H.R. Rep. No. 91-1330, 91st Cong., 2d Sess., at 9-11 (1970).

¹¹ See, e.g., R. LEFTWICH, *THE PRICE SYSTEM AND RESOURCE ALLOCATION*, 322-40 (5th ed. 1973).

and like two competing and hostile bandits out of a Hollywood Western, are together capable of conspiring in the joint enterprise of brigandage at the expense of the consumer. It was exactly because of the increasing dominance of the oligopolistic sector of the economy that wage-price guidelines apparently became necessary during the early 1970s. Accordingly, the guidelines sought to encourage both labor and management to increase productivity¹² while limiting the extent to which they could jointly exploit their respective monopolies of either a labor supply or an oligopolistic position in the product market.

Despite contrary theoretical arguments advocated by a majority of economists,¹³ labor unions still steadfastly maintain that they raise wages at the expense of profits. If the standard marginal productivity theory is correct, and unions raise wages only in response to increases in productivity (or in conjunction with management through exploitation of oligopolistic or monopolistic market structures) then the theoretical framework behind the Nixon administration's wage-price guidelines was perfectly reasonable. However, if there are large numbers of situations in which wages are raised at the expense of profits, then the wage-price guidelines

¹² In his remarks to the National Association of Business Economists on September 7, 1972, C. Jackson Grayson stated:

As I said, we [the Price Commission and the Administration] deliberately tried to design a system that would minimize the distortions common to most other control programs. This was the reason for clamping a lid on profit margins rather than on profits or prices. We wanted management and labor to strive for productivity gains, instead of relying on price increases as the route to higher profits.

He went on to say that the Administration's biggest concern and brightest hope for achieving an end to the controls without a real danger of resurgent inflation was American productivity.

A healthy, rising productivity rate, such as that which took place during the first half of the sixties, helped mightily in holding prices and unit labor costs stable during those years. But since 1966, the rise in U.S. productivity, despite the stimulus of defense spending, has lagged behind the rest of the world. In 1967, it hit almost zero percent of increase. And yet, as all of us are very much aware, rising productivity is perhaps the strongest non-governmental weapon with which to fight inflation. Evidence of real, sustained productivity increase in America would, more than any other single thing, encourage me to believe that the threat of recurrent inflation was no longer serious.

¹³ See P. SAMUELSON, *ECONOMICS: AN INTRODUCTORY ANALYSIS*, 637-40 (5th ed. 1961), and G.F. BLOOM & H.R. NORTHRUP, *ECONOMICS OF LABOR RELATIONS*, 256-59 (6th ed. 1969).

were justly attacked for not providing compensation from capital or management in favor of unionized workers. Under any theory which accepts labor's argument that unions redistribute wealth, criticism of the guidelines is well justified because they permitted unrestrained profit growth resulting from technological innovation or economies of scale, while setting an arbitrary ceiling upon increases in the wage rate.

Throughout the industrialized sector of the economy, unions are able to redirect money from that area which we loosely call "profit" into the area of wages and benefits. This becomes particularly evident when we discard the nineteenth century concept of profit as a return to ownership, and recognize that the preeminent factor of production among large-scale enterprises in the latter half of the twentieth century is not capital, but rather organized, collective intelligence; the "profit" which is the usual subject of discussion is not necessarily in the form of dividends to stockholders, but rather in the form of some type of return to the management of the enterprise.¹⁴ High management salaries represent the most obvious example of "profit" accruing to the managerial class. However, another avenue of "profit" which management traditionally seeks to maximize is upward mobility for upper-middle echelon management members themselves.¹⁵ Any type of corporate expansion constitutes a "profit" to management, as expansion inevitably leads to additional high paying jobs, higher status, and more opportunities for rapid advancement. While expansion may lead to higher "profits" for stockholders in the long run, in the short run profits are seldom reflected in increased dividends and only capriciously reflected in capital gains. Although the stereotype of class warfare in economic enterprises occurs between labor and owners, a more accurate version in the modern economy depicts warfare between workers who want profits to be used for immediate increases in wage benefits and management who want profits to be used to finance corporate expansion internally. Lower wages give management more money for internal financing of corporate expansion. The stockholders are very much like "wingless flies in the hands of small boys"—although perhaps one must concede that in the long run, successful expansion will reflect moderate increases in stock values and dividends.

¹⁴ Cf. J.K. Galbraith, *Economics and the Public Purpose*, 81-109 (1973).

¹⁵ *Id.*

The question remains, however, how labor unions can raise wages above increases in productivity without suffering an adverse effect upon employment. The Washington lawyers who staff congressional committees are accustomed to hearing a veritable deluge of testimony alleging that every increase in the minimum wage immediately precipitates a curtailment in the level of employment. It is well documented that this is true in some industries,¹⁶ at least in the short run. A distinction must be drawn, however, between capital-intensive industries and labor-intensive industries. Capital-intensive industries are those in which capital is the predominant factor of production, *e.g.*, the automobile and steel-making industries. Labor-intensive industries are those in which labor constitutes the predominant factor of production, such as the textile and health care industries. When one talks about employees subject to the minimum wage, one is concerned almost universally with labor-intensive industries.

It is interesting to note that classical marginal productivity theory as developed in the latter part of the nineteenth century evolved at a time when all industries were essentially labor-intensive. Probably no other economic theory, with the exception of supply and demand, has so insinuated itself into the public domain as marginal productivity analysis. While it sets forth a general case which is still applicable to most of the underdeveloped world, and even to certain broad segments of the American economy, marginal productivity theory must be substantially modified to make it descriptive in any way of the industrialized sector of the American economy. Economic models are notoriously unrealistic, and even their most ardent defenders recognize that they are at best merely a partial explanation of reality. Nevertheless, it is possible to explain exactly where wage-price guidelines went awry by updating the marginal productivity model which, in its primitive form, led policy makers astray. The theory becomes explanative again when we establish what I shall call "the general case" for the industrialized sector.

II. THE GENERAL CASE FOR MARGINAL PRODUCTIVITY IN THE INDUSTRIALIZED SECTOR

Marginal productivity theory, as it is usually taught in inter-

¹⁶ A. REES, *THE ECONOMICS OF WORK AND PAY*, 66-72 (1973). See also R. PERLMAN, *LABOR THEORY*, 144-54 (1969).

mediate and advanced economics classes, postulates that an employer will not pay a worker more than that worker brings into the firm, and, further, that workers will be hired until the wage of the last man hired exactly equals what that man produces for the firm. In the classical model, capital and land are always held constant, and under these conditions, a smooth upward sloping and then downward sloping marginal physical product (MPP) schedule for labor is hypothesized (Figure I). Stated simply, marginal physical product is the increase in total output resulting from the addition of one more unit of labor, holding the quantity of capital constant.

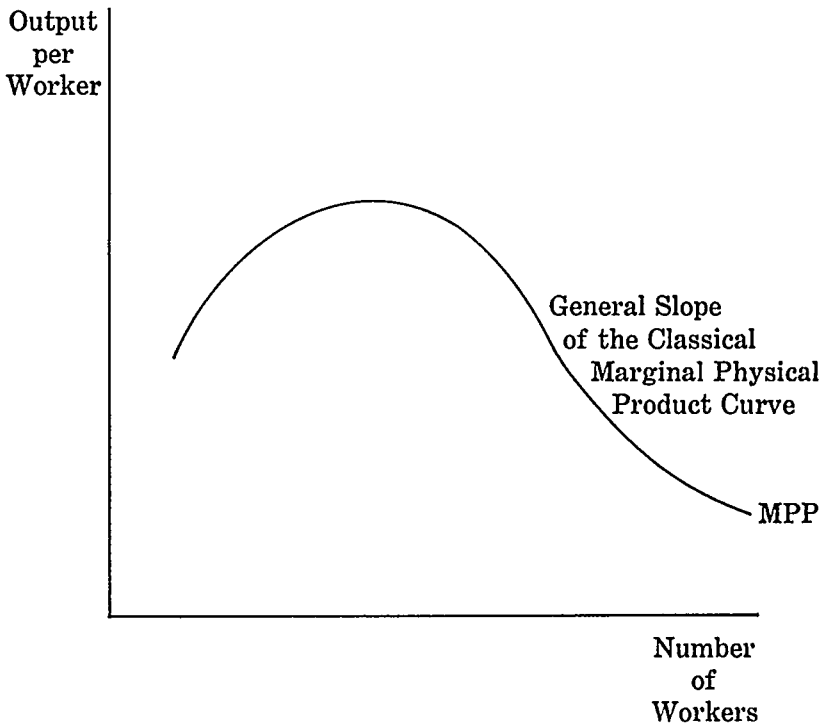


Figure I

In order to determine the wage rate, this marginal physical product schedule is then multiplied by the marginal revenue (MR) schedule (derived indirectly from the product demand schedule and directly from the total revenue schedule, and equal to the change in total revenue per unit change in the quantity of labor,

holding the quantity of capital constant) to give the marginal revenue product (MRP) schedule, which is also the schedule of possible wages (W) and the demand schedule for labor. Consequently, according to classical theory, any attempt to raise wages without productivity increases will result in a curtailment of employment, because the equilibrium between the wage rate and the marginal revenue product cannot be maintained at the higher wage level. This is demonstrated in Figure II, where in moving from wage W₁ to wage W₂, the employment equilibrium moves from N₁ to N₂ (where N stands for number of workers). This theory obviously fails to explain why wage rates in the competitive, as opposed to oligopolistic, industrial sector can be raised without an increase in productivity to justify the raise, and without curtailing employment.

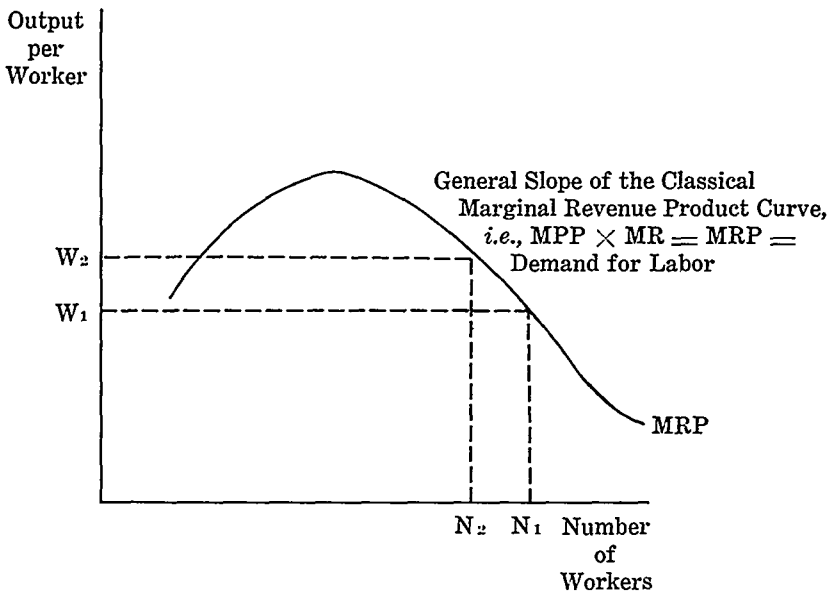


Figure II

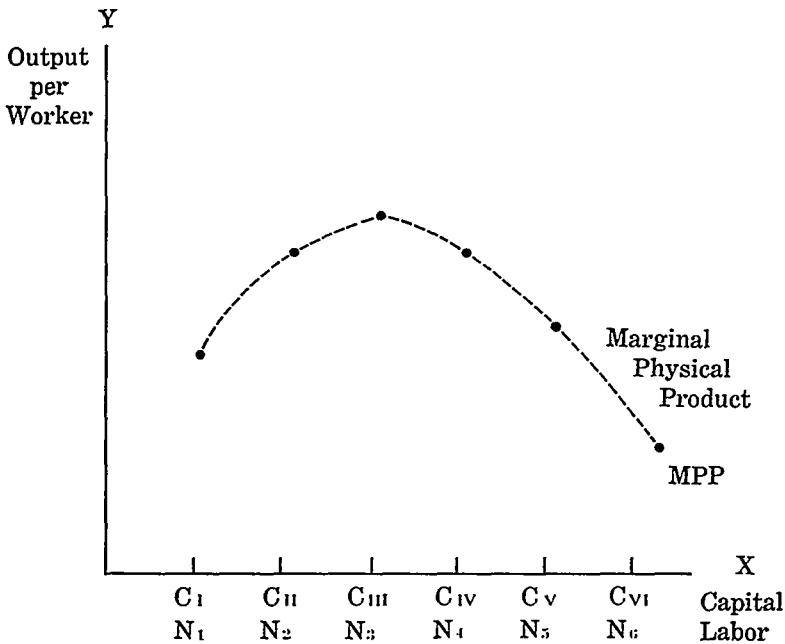
Language has more than a passing role in forming our thought patterns, and, therefore, the more precise the language used to express an idea, the more persuasive the presentation of that idea becomes. The very basic language of economics consists of repetitive diagrams expressing fundamental economic concepts, and it follows that anything that can be expressed in those diagrams will

have greater conceptual force than less structured verbal analysis or description. This section will demonstrate errors in the general case postulated by classical marginal productivity theory. These errors will be shown by the use of more descriptive modifications of the simplest diagrams which traditionally have been used to demonstrate the classical result.

The fundamental error in applying the classical model to the industrialized sector is one of assumption. In the classical theory, marginal physical product schedules are conceived as continuous mathematical functions when capital and land are held constant; however, for the industrial sector it is unrealistic both to hold other factors constant and to conceive of the marginal revenue product schedule, which also is the demand schedule for labor, as a continuous function. What, for example, is the marginal productivity of a second man on a tractor? Is it not close to zero? One would think so in any normal operation if the tractor is used only during daylight hours. What is the marginal productivity of a second secretary on a typewriter? Is it not also close to zero, unless we assume that shift work is economical? Even with shift work the same phenomenon of near-zero marginal product arises after three eight hour shifts. In theorizing about an advanced industrial society, it is unrealistic to hold all other factors constant, because for every scale of capital there exists only one efficient work force. In effect then, at all points on a real production function, capital and labor effectively dovetail.¹⁷

The marginal productivity of labor schedule in any capital-intensive industry may be depicted by Figure III, as a discontinuous function in which both capital and labor are measured on the X-axis, thus taking into account the complementary nature of capital and labor. The productivity per last laborer hired at any given scale of capital is measured on the Y-axis. The presence of dots rather than a smooth curve indicates that labor in excess of the amount complementary to capital at a given capital scale will add nothing to production, while a curtailment of labor at one output scale will not permit a discrete reduction in production, but it will necessitate withdrawal to the next lower output scale. There is no relevant area on a real assembly line in which labor can be changed and capital held constant to produce small reductions in output.

¹⁷ In production and resource allocation theory this phenomenon is demonstrated by right angle isoquants.



* { The graph above assumes increasing and then } *
 * { decreasing returns to total scale of enterprise. } *

Figure III

The principle of discontinuity applies to any team of men complementary to capital equipment. A United States Army 155 millimeter howitzer (to refer to an industry with which many adult males have a passing acquaintance) requires a certain number of men for its efficient combat operation on a 24-hour basis and if any are added they can “goldbrick” all day; if any are subtracted, the crew cannot operate efficiently for sustained periods in combat. One gun requires one crew, and while we can hypothesize the advantages of a relief crew in a world of inordinately cheap labor, an adequately low wage rate to permit such a crew is not within the relevant range.

As capital and labor are completely complementary in an industrial situation, the classical model must be expanded to look concurrently at the scale of capital. Of course in labor-intensive agriculture and in some of the service industries, where the capital-

labor ratio is low, the classical assumption of a continuous function is more accurate. But accuracy in this labor-intensive sector does not negate the conclusion that capital must be considered in any industrial model portraying high capital to labor ratio characteristics. Furthermore, industries with these characteristics are usually unionized. Experience, in fact, indicates that unions have had the least success in low wage, labor-intensive industries.¹⁸

At this point the objection can be raised that while the discontinuous function may be applicable, labor costs are an integral part of long run average costs, and that as long as we are constrained by a supply and demand price-setting mechanism, the raising of labor costs will necessitate an increase in price, a decline in demand, and a necessary curtailment of output and the number of workers employed. This analysis is correct in its broadest implications. However, within the relevant range of labor-management wage negotiations, rising costs will probably not determine employment. This conclusion follows if we again change only slightly the classical assumptions and envisage a long run average cost curve, not as a smooth continuous function, but rather as another discontinuous function defined by points whose positions are dictated by differing scales of capital. For not only is labor highly complementary to capital, but also capital is complementary to capital. Figure IV shows the conception of the long run average cost curve (LAC) which is implicit in the classical marginal productivity theory analysis. Line DD indicates the demand schedule for the product, and line MR indicates the marginal revenue derived from each unit sold. As I have already indicated, marginal revenue is one of the factors used to derive the marginal revenue product schedule, or demand schedule for labor. $MPP \times MR = MRP$.

The isolated coordinants (dots) in Figure V, on the other hand, show a far more realistic LAC schedule, because production can be carried on efficiently only at certain points where there are complete "systems" of capital. Of what value, for example, is half an assembly line? The marginal cost curve, i.e., the addition to total cost resulting from the production of one more unit, then also becomes realistically defined by a series of points. (Note that the oligopolistic demand schedule, a line DD sloping downward to the right rather than a competitive demand schedule which for any given producer would be parallel to the horizontal axis, is shown,

¹⁸ L.G. REYNOLDS, *LABOR ECONOMICS AND LABOR RELATIONS*, 412-28 (5th ed. 1964). Cf. J. BARBASH, *THE PRACTICE OF UNIONISM*, 17 (1956).

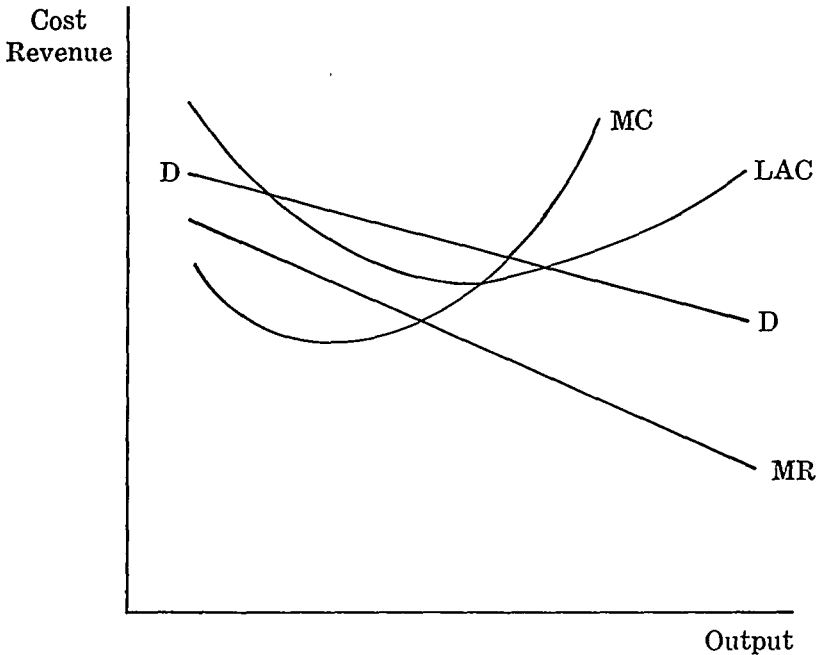
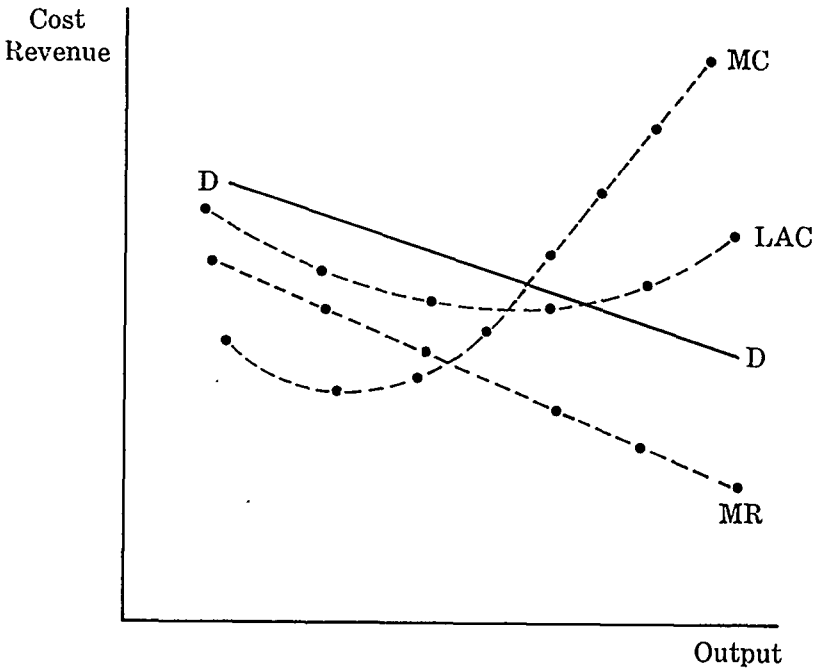


Figure IV

because the general case of unionized industries probably conforms much more often to the oligopolistic rather than to the competitive model. The LAC schedule is not tangent to the DD line because it is assumed that there will be substantial barriers to entry into the industry.)

It is logical that if the long run average cost schedule is discontinuous because of the necessity of adding large amounts of capital, if any capital is to be added at all, then the only relevant portions of the marginal revenue curve are those points describing revenue derived from the output of each practical plant scale used to optimum capacity. The dots in Figure V along the marginal revenue curve correspond to these relevant points. It is these points that should be used to derive the marginal revenue product curve, and if we multiply these discontinuous points by the values represented by the series of points in Figure III (which indicate marginal productivity defined only where there is an efficient scale of capital complementary to a given work force) we define a marginal revenue product (MRP) curve which is itself discontinuous, as depicted in Figure VI.



* { Dashed lines are merely to aid visualization } *
 { only the dark points are relevant }

Figure V

Once it is conceded that discontinuity characterizes the component parts of the marginal revenue product function far better than continuity, it is possible to describe the collective bargaining process and the "bargained" wage rate with traditional theoretical tools. Let us look at Figure VI and assume that when bargaining begins the wage rate is W_1 , which intersects the marginal revenue product function at R_1 , a dot corresponding to the number III mix of labor and capital. Under certain circumstances, it will still be possible for a labor union to raise wage rates, say to wage W_2 , without causing a curtailment of employment. As long as the total revenue (TR) derived from production at output III, less the fixed costs (FC) of production and the total new wage bill (W_2) at output III is greater than the total revenue at output II, less the total fixed costs (FC), plus the total new wage bill (W_2) obtained at

output II, then no workers will be discharged despite the wage increase. In symbolic form we can say: if

$$[TR_3 - (FC_{III} + TW_2)] \geq [TR_2 - (FC_{II} + TW_2)]$$

then no workers will be discharged and wages will be raised at the expense of profits.

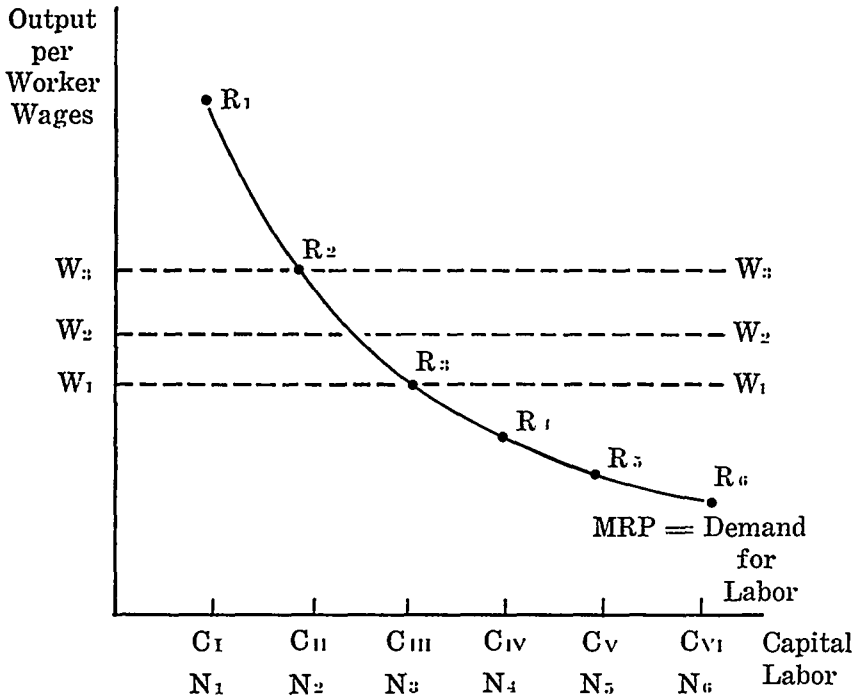


Figure VI

It can easily be seen that there is an area of play between W_1 (equilibrium at output R_3) and W_3 (equilibrium at output R_2) in which wages can be raised without the dire consequences that the orthodox marginal productivity approach has always predicted. The boundaries of this area of play will be determined by the shape of the discontinuous marginal revenue product function and by the short term mobility of resources. It is quite possible that the area of play, which is mathematically defined by the shape of the par-

ticular marginal revenue product curve, can be exceeded because of the inability of resources to move within any relevant time period, even though these resources may not, strictly speaking, be inextricably complementary.

In the short run it is generally conceded that resources are not mobile, and although economists talk a great deal about cross elasticities of substitution between labor and capital, actual substitution in the plant is such a long term eventuality that it has very little to do with routine contract bargaining. The higher the fixed charges which cannot be recouped, the greater will be the range of play in which labor can reallocate profits between management and labor.

Short run analysis appears to be the only relevant analysis in the area of wages. The long run is at best uncertain, and any *ceteris paribus* long run projection of substitution effects fails to consider so many factors as to be almost worthless. Such factors as increased demand, increased labor productivity resulting from better education, and improved capital efficiency should all be considered in any realistic model. The ultimate conclusion of classical marginal productivity analysis that wages cannot be raised beyond a certain point without curtailing employment remains unchanged; sufficient wage increases necessitate a shift to a lower scale of production. However, in ordinary negotiations this ultimate conclusion is not usually relevant, and should not be a factor in designing wage-price controls.

III. THE IMPLICATIONS OF THE GENERAL CASE

At this point it is possible to make some observations about the "general" case. This general case postulates a certain negotiating spectrum, the range of which depends upon the capital to labor ratio. The greater the capital component relative to labor, the greater the range in which labor can raise wages without decreasing employment. In such labor-intensive areas as agriculture and the service trades the discontinuous function is less descriptive. The farmer who is accustomed to using cheap labor may quickly find it unprofitable to operate his farm if he is compelled to pay his labor higher federal minimum wages.

In the agricultural example, it is necessary to realize that much of the profit to be gained is a "return to labor." Without becoming Marxian, it can be said that profit often comes to an entrepreneur by buying cheap labor, organizing it for production,

and selling the product dearly. Whether we characterize this as a return to another's labor or as a return to the entrepreneur's skill is a question more for philosophy than economics. A large increase in the cost of the profit-producing agent will greatly lower the profit. However, in a labor-intensive industry, the profit-producing agent is a combination of managerial talent, technological innovation, research and development, capital investment, and labor. The returns to all of these factors are flexible in terms of the internal accounting of the firm. In such labor-intensive industries it is possible to raise wages, lower profit (as expansively defined in the early part of this article), and still not change the level of employment. The income to the non-labor factors of production will be lower than it was before the wage increase, but still higher than it would be if production were moved to the next lower output point.

The conclusion, therefore, is that the wage-price controls were unmindful of the negotiating range which has been demonstrated above. By establishing an arbitrary wage increase limit exactly equal to industry-wide increases in productivity, the controls locked labor into the same relative "share of the pie" that it had on the day when the controls became effective. Accordingly, in an industry which had historically devoted a large proportion of its profits to corporate expansion, wage-price controls suddenly made that allocation of profit non-negotiable. In addition, when one employs a broad definition of "profit" and recognizes the factor of management salaries as an element of "profit," one sees that there is yet another area of negotiation which is foreclosed. While labor, in general, is locked into definitely ascertainable wage rates, easily regulated by virtue of assignments to fairly definite repetitive functions, management salaries can always be raised in conjunction with increased responsibility. Corporate expansion provides manifold opportunities to create jobs with increased responsibility and, accordingly, to a large extent places management salaries outside of the wage-price control perimeters.

The new marginal productivity model for the general case in the industrialized sector implies that any future attempt at establishing a national wage-price policy must take seriously labor's claim that unions do indeed redistribute the wealth in favor of wage earners and away from the other factors of production, most particularly capital and organized management. Accordingly, no hard and fast rule that wages must increase only in direct proportion to productivity increases is in any sense a workable principle from the point of view of organized labor.

Whatever structure we envisage for implementing direct controls must be capable of incorporating value judgments with regard to "profits"; i.e., alternatively determining the advisability of distributing increased profits among workers for immediate consumption, investing profits for internally financed expansion, paying profits in management salaries, or distributing profits to stockholders. Past experience suggests that this is almost an impossible task throughout the entire economy, and one that quite probably should not be undertaken. However, the question of what can be done still must be answered because the alternative of a monetary approach appears inevitably to precipitate a recession, while overall wage-price controls appear unworkable.

IV. THE "THEORY OF THE SECOND BEST" APPLIED

The tentative answer to the question is that although we cannot achieve a perfect solution through either a monetary approach or total wage-price regulation, we can follow sound economic theory and strive for some "second best" solution that provides an acceptable level of regulation, an acceptable level of resource allocation distortion, an acceptable level of unemployment, and an acceptable level of inflation.¹⁹

As the greatest inflationary bias in the private sector is imposed upon the economy by oligopolistic industries in which both labor and management are capable of exploiting inelastic demands in the product market, the answer is probably to regulate only the largest and most influential oligopolistic industries. This would place them, to a large extent, in the same position as public utilities which we have regulated fairly successfully during the past few decades. While regulation of some industries, without corresponding regulation of the rest of the economy inevitably produces distortion in resource allocation because of interference with the price mechanism, that distortion would be a reasonable cost for reducing inflation to an average of four or five percent, which experience in the 1950's and early 1960's indicated to be an acceptable level. It is a general belief among economists that once one sector of the economy is regulated, the entire economy must be regulated because the price system no longer works efficiently. In spite of that fact, an inefficient price system combined with an acceptable level

¹⁹ Lipsey & Lancaster, *The General Theory of Second Best*, 24 *REVIEW OF ECONOMIC STUDIES* 11-33 (1956-57).

of inflation is probably preferable to total regulation with both its political costs in terms of freedom and economic costs in terms of even greater distortion in resource allocation as a result of incompetent regulation.

Although in the oligopolistic industries which will be regulated, labor will be displeased with the curtailment of its power to raise prices and wages (in concert with management) by exploiting inelasticities in the product demand schedule, it can be reasonably argued that because wages are already so high in oligopolistic industries compared to wages for similar work in other industries, regulation would become fairly acceptable within a short period of time. This limited regulation produces no greater reduction in labor prerogatives than is associated with employment in the high wage public sector. Once the wage-price spiral is broken in areas such as automobiles, steel, rubber tires, transport and other similar industries, we should expect substantially less inflationary pressure in the sectors of the economy that approach a competitive situation. While we will have inflation, it should remain at an acceptable level.

