

Inflation & the Rise of the Government Sector: An Analytical Survey

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"It is regrettable that economists make no use of the labor-saving device *reductio ad absurdum*, that is so dear to mathematicians. Undoubtedly this is due to the fact that they start by putting the absurd into their premises. From there, there is no place to go.

During the decades when they were proving from their equilibrium models that increased taxation was a means of keeping prices stable, there was an elegant, indirect way of proving that this could not possibly be the case. For were that true, all that would be necessary to "lick inflation" would be to increase taxes and apply the proceeds to subsidize producers to lower their prices. Prices would thus be kept down on a double count. Nonsense? But of course. It is in fact *reductio ad absurdum*. Had they resorted to such lazy methods, economists could have saved themselves much labor and our economies many hundreds of billions of dollars of output."

William Krehm, *Babel's Tower: The Dynamics of Economic Breakdown*, 108, p. iv.

That the rise of the government sector in recent decades is the root cause of the inflation which has plagued these same decades is not a thought which has occurred forcefully to many economists. Most economists have maintained that changes in taxes can change relative prices, but not the absolute price level—unless, of course, they somehow cause excessive money creation. However, such a link between an enlarged government sector and inflation is clear to Robert L. Heilbroner. He writes:

"When we look at the historical picture, the root cause of the recent inflationary phenomenon suggests itself immediately. It is a change that profoundly distinguishes modern capitalism from the capitalism of the prewar era—the presence of a government sector vastly larger and for more intimately enmeshed in the process of capitalist growth than can be discovered anywhere prior to World War II . . . If we wanted to stop inflation

dead in its tracks, we would only have to turn off the government spigot for arms and welfare, and in all likelihood the price level would begin to fall. So would the economy as a whole, which is the reason why there is no possibility of such a massive disengagement from government." [79, p. 42, 44]

However, the "tax push" or "tax diffusion" theory has not at present writing replaced the "good old" quantity theory in the minds of most economists. Indeed, such surveys of inflation theories as Laidler's [112] can still be written without betraying the slightest suggestion that a "tax push" theory exists. Of late, however, "left," "right" and "center" versions of the theory have been developed, with James O'Connor's, *The Fiscal Crisis of the State*, [135] the "Mundell-Laffer Hypothesis," [111, 130, 131, 171, 172], and Bacon and Eltis' *Britain's Economic Problem: Too Few Producers*, [10]. These theories are variations on the theme that the government is to blame for some/all of the inflation

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(or stagflation) of the recent decades because:

a) it has raised the percentage of G.N.P. flowing through the taxation—government expenditure—transfer and subsidy loop of the “circular flow.”

b) business firms and employees have raised their prices and wages in an attempt (often unsuccessful) to shift the tax burden to others, or have supplied less and at consequently higher prices because of the growing tax “wedge” between prices and net factor incomes.

c) an increased bureaucratization and regulation of economic life has raised costs by reducing the efficiency of markets, by reducing the pace of productivity gains, by internalizing in prices formerly external diseconomies such as pollution and product hazards. Also, such reforms as “equal pay for equal work” for women and minority groups in practice always mean raising their money rewards toward the norm, never a cut in others’ pay to match those of the disadvantaged groups.

The following survey examines the contributions of tax inflation authors, largely in chronological order and looks toward a “radical” solution to stagflation which builds on the insights provided by this literature.

Colin Clark's 25% Limit—or Paradigm Lost

Although many laymen have, expressed the opinion that “big government,” however financed, is inherently inflationary, it remained for Colin Clark to put this argument into a form which drew response from his fellow economists. In the December 1945 issue of the *Economic Journal* he argued that, whenever taxation exceeded 25% of the national income, cumulative inflation followed until such time as taxation was reduced below this “critical limit.” Clark gleaned a clue toward his theory from a comment by Keynes about the 1920's French experience with inflation:

“The level of the franc is going to be settled in the long run, not by speculation or the balance of trade, or even the outcome of the Ruhr adventure, but by the proportion of his earned income which the French taxpayer will permit to be taken from him to pay the claims of the French rentier.” [33, p. 372]

When Keynes wrote the above in 1922 taxation exceeded 25% of French national income and interest payments on the public debt alone exceeded 11% of national income. Keynes nowhere generalized that such high taxation leads to inflation, but Clark saw the data he had gathered for varying periods for 17 countries as supporting such a generalization. He wrote:

“The data appear to give very considerable support to the hypothesis that once taxation has exceeded 25% of the national income (20% or less in certain countries), influential sections of the community become willing to support a depreciation of the value of money; while so long as taxation remains below this critical limit, the balance of forces favours a stable, or occasionally an increasing, value of money.” [33, pp. 379–80]

When Clark expanded his argument in 1950 using post war data, in a popular article in *Harper's Magazine* [34] and a lecture in Australia, [35] his efforts set off a spate of articles. [61, 80, 84, 141, 155, 158, 184] Basically, these articles are dismissive of Clark's supposed “limit,” and negative towards the theoretical arguments and evidence he marshalled to support his conclusion. However, most critics accepted the basic point that at some point high taxation could become inflationary while doubting that it was the same for all countries and times. Thus Peckman and Meyer [141] showed the weakness of Clark's political forces argument regarding the debt burden. Specifically, in the French case public debt interest at one point reached 11% of national income, but such a percentage is unheard of elsewhere; in the U.S. it never exceeded 3%. They showed that, given a progressive tax structure, the taxpayer

could only increase the burden of taxation by supporting inflation (that is, unless everyone cheats). Further, they showed that Clark's economic incentive arguments that a high marginal rate of taxation may 1) cause disincentives to work, 2) lessen employer resistance to wage hikes, and 3) cause wasteful business practices, may go either way. However, they concede that “tax increases can lead to wage increases through the ‘cost-push,’” and conclude:

Clearly, there are limits to taxation, but they cannot be determined by rule of thumb.” [141, p. 242]

Dan Throop Smith's note [155] was a particularly worthy addition to the discussion. Indeed, it contains a sketch of several of the arguments brought forward by latter day “tax push” theorists and empiricists. Smith wrote:

“1. The higher the level of taxation in a country, the more likely it is that additional taxation to finance an equal amount of additional government expenditures will fail to maintain a balance between total spending and the total flow of goods and services. It appears preferable to refer to government expenditures rather than taxation as the proximate cause of the inflation and to recognize simply that tax increases may be abortive as an offset to inflation arising from a very high level of government spending. 2. Increases in taxation may fail as anti-inflationary devices for three reasons: (a) The tax increase may be responsible for more or less commensurate income increases, as when an excise tax is reflected in a cost-of-living index which in turn is the basis for wage increases, or when a rise in income tax is followed by wage increases to maintain take-home pay . . . (b) The tax increases may so reduce incentives as to lead to actual reductions in either activity or efficiency . . . (c) The tax increases may not lead to commensurate decreases in private spending. Consumption may be continued in spite of tax reductions in private incomes, by using liquid balances; and investment may also be financed by drawing on liquid balances or by credit expansion . . . high marginal tax rates on corporate income may . . . even increase inflationary pressures by encourag-

ing business outlays which would not otherwise be undertaken.” [155, pp. 243, 245]

Several of the arguments developed by Smith were later cited by Eisner [47, 49] and Maital [119] as explaining the failure of the “new economics” to contain the Vietnam War inflation. However, the debate over Clark's “limit” had virtually no effect upon the development of macroeconomic theory and policy in the 1950's and 1960's so that when the “new economics” began increasingly to fail in the late 1960's the “tax push” argument had to be re-invented *de novo*.¹ As to why economists, having conceded that high taxation could be inflationary, but having satisfied themselves that no universal 25% limit existed, thereupon dropped the whole subject, I can only speculate. I believe the very thought of “too much government” causing inflation goes against the grain of a whole set of economists' preconceptions and ingrained habits of thought. The most formidable of these is the “classical dichotomy,” which implies that while wages, interest, and taxes are important, as costs of production in determining supply cost and thus *microeconomic* relative prices, they are of no importance in determining the *macroeconomic* absolute price level, which is determined by the quantity of money relative to the quantity of goods.² Keynes

¹Amotz Morag's 1965 book *On Taxes and Inflation*, (129) appears to be the only one inspired by Clark's tax limit thesis.

²In fact the “ratio of money to goods” and the price level diverge widely as can be easily confirmed. Thus for the 18 years from 1947 to 1966 the U.S. money supply (M_1) grew at a slower pace than real output so that the M_1/Q ratio fell from 100 in 1947 to 71 in 1966, while the price level (GNP deflator) rose from 100 to 152. From 1966 the M_1/Q ratio rose to equal its 1947 level by 1976, at which time P equalled 270. The 1978 figures are $M_1/Q = 105$, $P = 306$. If we broaden the definition of money to M_2 the results are as follows. M_2/Q in 1947 = 100, 1966 = 105, 1976 = 181, 1978 = 195. All figures calculated from Council of Economic Advisors, *Economic Report of the President*, February 1970, January 1977, 1979.

railed against this pernicious doctrine [105, pp. 292–3] which goes back at least to Adam Smith, and proposed instead to build his price level theory out of the “homey but intelligible concepts” of micro theory.³ But in vain! His disciples perpetuated the classical schizophrenia and thus most saw no macro economic implication in the entire debate over whether full “forward” shifting of the corporate profits tax, like indirect taxes, was the general rule.⁴ [1, 15, 32, 38, 39, 43, 64, 109, 110, 132, 134, 149, 150, 160, 161, 166, 168].

The Past Decade and a Half—Or Paradigm Regained

Johansen's Model

In 1965 L. Johansen published an examination of the price level impact of direct and indirect taxes which reached the conclusion that an income tax increase would necessarily reduce output but might raise or lower the price level depending upon the shape of the production function. [95] Johansen's model, based on yet earlier work by Bent Hansen, [75] incorporated income and indirect taxes into a model containing a diminishing returns production function, a producer's objective function and an aggregate expenditure function. He assumed pure competition in the product market and traditional U shaped cost curves.

³In a single industry its particular price-level depends partly on the rate of remuneration of the factors of production which enter into its marginal cost, and partly on the scale of output. There is no reason to modify this conclusion when we pass to industry as a whole.” Keynes, *General Theory*, p. 294.

⁴A near perfect example of the classical dichotomy is to be found in Charles E. McLure Jr's “Tax Incidence, Macroeconomic Policy, and Absolute Prices,” (92). McLure sets up a Walrasian world of nine equations in which the first eight equations determine relative prices and incomes and these are affected by taxes. However, the ninth equation, which determines the absolute price level, is the quantity theory with constant velocity.

Hotson's Model

In 1967, J. H. Hotson published two articles (86, 87) analyzing interest⁵ and tax push inflation in a Keynes-Weintraub macro model.⁶ He concluded that “anti” inflationary interest and tax hikes were contractionary, but probably inflationary.

Peacock and Williamson's “Hybrid” Model

Peacock and Williamson set up a “hybrid of cost-push and demand-pull” model in which demand pull forces enter through the labour market but the price of commodities is assumed to be determined by a mark-up over costs. An appendix undertakes to prove that full forward shifting of indirect taxes accords with individual maximizing behaviour in imperfectly competitive markets. They make a distinction between “disinflation,” which is the “opposite of inflation” and “deflation” which they take to mean a decrease in real output. Since they conclude that an indirect tax increase raises the price level and reduces real output, they conclude, “It is therefore possible for a [tax] change to be both inflationary and deflationary.” [138, p. 32] They concluded that, within their model, an increase in indirect taxes would initially increase but eventually decrease the rate of inflation toward a new equilibrium rate (because of the Phillips curve assumptions built into their wage adjustment equation). A direct tax increase of equal deflationary impact (i.e., one that reduces real output by the same amount as the indirect tax) will from its imposition work to reduce the rate inflation. For similar conclusions within a comparative statics analysis of Canada's situation in 1969 see my [89, 93].

⁵For an earlier recognition that high interest rates could be inflationary see James R. Elliott, (52).

⁶Keynes model was developed by Sidney Weintraub (176, 177) and Paul Wells (180). See also my (93 pp. 34–44, 95–104) for the application of this model to “interest and tax push” inflation.

Brennan and Auld's Dynamic Model

In 1968 G. Brennan and D. A. L. Auld presented a simple dynamic model which demonstrated “the possibility that the sales tax may be subject to cumulative shifting: first shifted forward to customers . . . then . . . back on firms in higher income claims to match the higher cost of living—then forward . . . and so on.” [24, p. 521]

Brennan and Auld also analyzed the inflationary effect of an increase in income taxes. They assumed that workers were interested in take home pay and seek to pass on the tax in higher pretax wages and conclude that an income tax increase will cause prices to rise. Their formulation ignores the demand changing effects of changing taxes, a deficiency overcome in Pitchford and Turnovsky's 1975 paper [145] discussed below.

Harrod's Dichotomy

In 1969 Sir Roy Harrod suggested that “anti” inflationary fiscal, and monetary, policy moves may in some circumstances cause inflation rather than cure it. He wrote:

“The ‘dichotomy’ is as follows. If aggregate demand is running ahead of supply potential, this will tend to pull prices up. In these circumstances deflationary policies, designed to reduce aggregate demand, will have the effect of reducing, or, in the absence of wage push troubles eliminating, any price increase. . . . But, if initially aggregate demand is *not* above supply potential, it is no longer clear that deflationary policies, so called, will have the effect of reducing or eliminating any price inflation that is occurring. It may even be the other way round.” [78, p. 624]

Figure 1 is a visual aid to Harrod's argument.

The curve \dot{P}_1 represents the relationship between the rate of change of the price level and the level of employment for a given year. Its initial downward slope reflects Harrod's contention that imperfectly competitive firms face downward sloping marginal cost curves so that reduced demand may cause them to

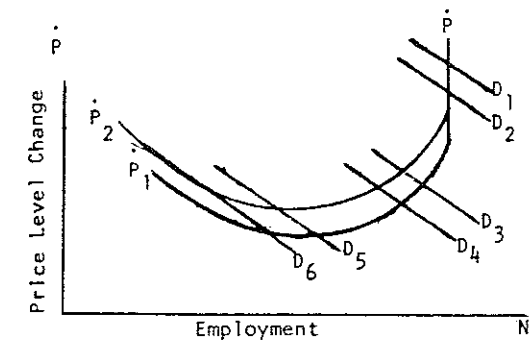


Figure 1 Harrod's Dichotomy, Indicating that Demand Reduction May Lower, or Raise, the Inflation Rate

raise their prices.⁷ As \dot{P}_1 is drawn, the economy will experience some inflation whatever the level of employment. Suppose that the authorities attempt to “fight” inflation by raising taxes or interest rates without increasing government spending to reduce demand (D). The price and employment level effects of these moves depend upon the shapes of the D and P functions and the degree of their shift. Figure 1 explores the range of possibilities from a pure disinflationary effect (D_1 to D_2 where the P curve is vertical and therefore the upward shift from P_1 to P_2 occasioned by the tax/interest hike is irrelevant) through a neutral effect upon the rate of inflation but a contractionary effect on employment (D_3P_1 to D_4P_2) to the “perverse” side of Harrod's Dichotomy in which the “anti” inflationary

⁷See Gardiner Means, “The Administered-Price Thesis Reconfirmed,” (122) for the finding that “industrial prices in recent years have disclosed many cases in which price behaviour has been the reverse of that to be expected from classical theory, the price rising with recession and falling with recovery.” (p. 297) See also John M. Blair (19) and Robert E. Smith (156) for theoretical rationalizations of such firm behaviour. Steven Lustgarten (118) recently concluded that “. . . the administered inflation hypothesis is not supported by either theory or empirical evidence for 1958 through 1970.” (p. 205) Leonard W. Weiss (180), however concludes, “There does appear to be such a thing as an administered price.” (p. 619)

move proves inflationary though depressionary effects (D_5P_1 to D_6P_2).

Analysis by Hotson and Habibagahi [72, 92] demonstrated that the "conventional wisdom" regarding the price level effects of fiscal and monetary policy depend upon the implausible assumption that higher taxes and interest rates do not affect marginal cost ($dMC/dT = 0$; $dMC/dr = 0$). As soon as the assumption of the cost neutrality of tax increases is relaxed, the price and interest rate impact of tax increases become ambiguous. Assuming $dMC/dr > 0$ likewise causes monetary policy to become ambiguous. Further analysis involving average cost pricing turned up plausible cases in which "conventionally wise" policy moves had unambiguously perverse consequences. The clear implication is that the way out of "stagflation" is to cut taxes (particularly indirect taxes) and judiciously increase the rate of monetary growth to drive down interest rates, i.e., to attempt to move the economy from P_2D_6 to P_1D_5 . The possibility, much confirmed by sad experience, that increasing the money supply increases the rate of interest was not explored.

Jump and Wilson's Simulations

These theoretical conclusions are interestingly confirmed in an empirical piece published in 1972 by Jump and Wilson [101]. They analyzed the effects on unemployment and price levels in Canada of three policy options: a 10% reduction in the personal income tax, a 50% reduction in the building materials tax, and a 50% reduction in all federal sales taxes. The policies were projected over seven quarter year periods from 1971:4 through 1973:2 by means of the University of Toronto Quarterly Econometric Forecasting Model. Jump and Wilson concluded that the 50% cut in the sales tax would have the greatest and most continuing beneficial impact on both employment and price level. They also estimate that while the 10%

income tax cut and the 50% sales tax cut have roughly similar impacts upon employment, the income tax cut somewhat increases the rate of inflation while the cut in the sales tax more powerfully reduces it.

Dynamics of Harrod's and Galbraith's Dichotomies

The Hotson, Lerner, and Habibagahi paper, "Some Dynamics of Harrod's and Galbraith's Dichotomies," [93, Chapter 7] is an attempt to explore some of the complexities and uncertainties implicit in Harrod and Galbraith's visions of the economy. Following J. K. Galbraith [57, 58] who maintains that the economy is dichotomized between the "market system" and the "planning system" these authors undertake to model "planning system" behaviour as "price maker" behaviour ("Model A") and "market system" behaviour as "price taking" ("Model B"). Although the dynamics of models A and B are quite different, they reduce to the same static model if equilibrium is assumed. The conclusions were as follows: If Model A best describes the world, then a fiscal policy of reducing direct taxes or increasing government expenditures is the expansionary policy which is most likely to have initially anti-inflationary effects under less than capacity conditions. If Model B ("market") holds, this fiscal policy is the *least* likely to be anti-inflationary. For Model A, indirect tax reductions are second best, and monetary expansion is the worst, given that the criterion of "best" is expansion of real output without inflation.

For Model B, an increase in government expenditures is the worst policy, indirect tax reductions are second best, and monetary expansion appears most likely to be initially anti-inflationary. Galbraith's dichotomy thus presents an additional dilemma to the policy maker, (and to the policy taker). What is anti-inflationary policy for one-half the economy may be causing inflation in the other half with the net outcome uncertain indeed!

Tax "Push" as a Struggle For Net Income Shares

In its *Ninth Annual Review, The Years Ahead* [46] the Economic Council of Canada argued that imperfect perception of the cost and benefits of a rising government sector can contribute to inflation. As the Council put the matter:

"... a increasing role of government may result in an inflationary bias in the economy. In our opinion, this danger originates in the adjustments in nominal incomes induced by tax increases. Traditionally, this adjustment has been largely neglected by economists... Experience throughout the world seems to show that... desired incomes are adjusted... to maintain disposable income... In short, people want to obtain increases in nominal incomes that will be sufficient to compensate them for both increases in price and increases in taxes, and so protect their real disposable incomes." [46, p. 101]

The Economic Council's insight may be illustrated by a model similar to one developed two decades ago by Holzman. [85]⁸

$$\begin{aligned}
 Y_t &= V_t + F_t + T_t & \text{where } Y_t &= \text{National Income} \\
 V_t &= a n Y_{t-1} & V_t &= \text{Disposable income of those able to} \\
 & & & \text{vary their incomes in response to} \\
 & & & \text{changed prices and taxes} \\
 F_t &= F_0 & F_t &= \text{Disposable fixed incomes} \\
 T_t &= b Y_{t-1} & T_t &= \text{Net tax receipts} \\
 P_t &= Y_t / Q_0 & a &= \text{Desired (= initial) income share} \\
 & & & \text{of variable group} \\
 & & n &= \text{Ratio of variable income rise to} \\
 & & & \text{price rise; thus} \\
 & & & n = \frac{V_t / V_0}{Y_t / Q_0} \\
 & & b &= \text{Rate of taxation (indirect taxes)} \\
 & & Q_0 &= \text{Real Income}
 \end{aligned}$$

⁸Holzman's model involves a struggle over income shares, thus "Type II" inflation in Abba Lerner's parlance. (113) In Holzman's model, the struggle is between labour (the aggressors), profit (the largely successful, defenders) and the fixed income victims. The inflation, set off by a rise in the wage share, comes to an

Suppose, for simplicity, $n = 1$ and the rate of taxation is increased from b to b' .⁹ If, again for simplicity, real income (Q) remains constant, the price level must increase until the fixed income share has been decreased by $b' - b$. Thus if $Y_0 = Q_0 = \$100$, $a = .5$, $n = 1$, $b = .2$, $F_0 = \$30$, and in period 1 taxation is increased to $b' = .3$, the price level will increase in successively smaller tax-income spirals until $F_t = .2Y_t$; thus until $Y_t = \$30/.2 = \150 .

Clearly, if $n < 1$ the degree of inflation accompanying a given rise of the government share is lessened. Thus if $n = .9$ so that an = .45 inflation need only continue until $F_t = .25 Y_t$, thus until $Y_t = \$120$.

Robert Eisner on "What Went Wrong?"

In a series of articles from 1969 through 1978 [47, 48, 49, 50, 51] Robert Eisner has contributed a number of insights concerning the shortcomings of mainstream macroeco-

end when the fixed plus profit shares are so reduced that the three shares sum to 100 per cent.

⁹In a country with a progressive tax structure, the existence of inflation increases b as money income rises. Canada now removes this government inflation bonus in the personal income tax through indexing of incomes.

conomic theory and policy. His 1971 article "What Went Wrong?" [49] listed nine factors to which he attributed the failure to stop the Vietnam War inflation. These are:

1. higher tax rates inducing higher government expenditures
2. limitations of counter-cyclical tax changes; predictable from the permanent income hypothesis
3. perverse effects of certain tax changes on investment demand
4. tax increases, especially but not exclusively of the excise variety, which raised prices by reducing supply
5. a liquidity leak, analogous to the liquidity trap, which sharply limits the impact of tight money
6. inelastic interest-rate expectations which limit real long-term movements, while permanent changes in long rates rule out intertemporal substitution effects
7. the cost element in higher interest charges, which raises supply prices
8. possibly decreasing elasticity of lower demand in an imperfectly competitive world, and
9. lags which may be variable as well as long."

In his 1978 article, "Government and Inflation" [51] Eisner argues that high interest rates can be inflationary on balance [pp. 104-5]. He also reviews the tax push arguments [pp. 105-8] and indicates a number of ways in which government regulations and interferences with prices and wages have driven up the price level. For further discussion of the role of government policies to reduce the price level see Crandall [40], Maynard and van Ryckeghem [120], Okun [136], and Bailey and Hull [12].

Pitchford and Turnovsky's Theoretical Contributions

In a series of articles [145, 146] Pitchford and Turnovsky have built on earlier work by Pitchford [144] to analyze the inflationary effects of higher taxation. In 1974 Turnovsky [169] emphasized the interaction of inflationary expectations with a progressive tax structure. He showed that, given a progressive tax structure, a one percent increase in expected

prices would require more than a one per cent increase in money wages, if workers are to maintain their after-tax real wage. He also showed that when tax revenue depends upon current income:

"... it is now possible for an expansionary monetary policy, or an increase in real government expenditure, simultaneously to have an expansionary effect on income and a deflationary effect on prices, provided the interaction (of taxes and prices expectations) is sufficiently strong. Moreover, increases in the base and marginal tax rates also give rise to offsetting effects, making it possible for tax increases to be actually inflationary." [169, 336].

In their 1975 collaboration, [145] Pitchford and Turnovsky studied income distribution and taxes in an inflationary context. In their 1976 article [147] they are concerned, not only that increased taxes may well lead to inflation, but that they may destabilize the system by increasing the inconsistency of income claims and offers. The result is to make difficult the maintaining of a stationary price level because with excessive income claims excess supply at the stationary level may be intolerably high. They conclude with a plea for tax cuts balanced by government expenditure cuts as the way out of "stagflation."

A Two-Party Politics Approach to Public Sector Inflation

D. Auld and C. Southey suggest an indifference curve approach to public sector inflation [7]. Their analysis posits an electorate which prefers a large fraction of total income in the form of private goods and services and a small volume of publicly provided goods and services and a government with the reverse preferences. They show that the attempts of government and the electorate to impose their mutually inconsistent social preference functions can lead to inflation under a wide variety of assumptions (full, or less than full, employment; lump sum, proportional, and

progressive taxes). For some extensions of Auld and Southey's model see Hotson [93, pp. 120-6].

Two Dissenting Views—Blinder and Beck

Two dissenting views to the "tax push" or growing government theories have been offered by A. S. Blinder and M. Beck. The first is that of Blinder who argues [20] that an income tax increase is unlikely to be, on balance, inflationary; Beck [14] shows that the government's share of GNP has been declining in real terms in a majority of industrial countries.

Blinder demonstrates that an increase in the income tax will reduce aggregate supply, since labour supply is a function of the after tax real wage. The conditions which favor an income tax increase having the desired deflationary effect are set forth as follows:

- (A) a high income-tax multiplier
- (B) a low share for labour in total output
- (C) a low tax rate
- (D) a small (positive) elasticity of supply of labour and small (negative) elasticity of demand.

He concludes that "All of these are in accord with common sense." [20, 297] and "I conclude that for plausible values, at least in this simple model, the income tax rate increase is very likely to have its desired deflationary effect." [p. 299].

Auld [5] has recently attacked Blinder's conclusion, maintaining that a small income tax multiplier is likely in an open economy or where consumption is determined by other than the absolute income hypothesis. Furthermore, the labour market is hardly purely competitive, as Blinder assumes.

Indeed, Blinder rather quickly came to doubt his own conclusions, as is evidenced by his co-authorship of the following from Blinder and Solow [21]:

"... most taxes are, in the short or long run, incorporated into business costs, and therefore (at

least partially) passed on to the consumer in higher prices. Therefore, if the contractionary fiscal medicine administered to cure inflation takes the form of higher taxes it may well have the desired deflationary impact on aggregate demand, but also an unintended cost-push inflationary impact on aggregate supply. The net result is, in many cases, unclear on purely theoretical grounds . . . The clearest example of an inflationary tax hike is probably an increase in excise taxes . . . A similar argument can be made with respect to the corporate income tax . . . an analogous argument applies to increases in personal income tax as a tool to cure inflation . . . We conclude then that tax raising may not be the best way to curb inflation." [21, 98-100]

The abstract of Beck's article states his conclusions as follows:

"In real terms government's share of gross domestic product declined between 1950 and 1970 in a majority of thirteen developed countries studied. Elasticity coefficients below unity were obtained for nine of the thirteen countries at the level of government consumption (resource-absorbing expenditure); and for eight of the thirteen, at the level of total current expenditure, including transfer payments. In every country examined the price (cost) index of government services rose by a greater margin than the price index for GDP. Allowing for data inadequacies, the study suggests that real size of the public sector may have peaked in many mature economies." [14, 15]

As Beck shows, in each of the thirteen countries he studied, the price (cost) index of government services rose by a greater margin than the price index for GDP as a whole largely because of a rise in government wages. For GDP the median price rise between 1950 and 1970 was 140%; for government services it was 240%. Maital [119], Gunderson [71] and Bindand Foot [18] also examined these matters.

Tax Inflation—Phillips Curve Analysis

A number of articles have explored the question of tax push inflation in a "Phillips Curve" framework [2, 4, 28, 31, 44, 63, 65, 66, 82, 83, 93, 98, 117, 162, 164, 165, 184]. The general result has been to confirm the

insight that a higher level of taxation per unit of priced output is among the causes of the inflation of recent decades. It also appears to be evident that the "tax push" effect on wages and prices has been more powerful in the more recent period, 1966-75, than in the decade, 1956-65.

In 1972 the Canadian Prices and Incomes Commission sponsored an important study [164] of inflation by L. D. Taylor, S. J. Turnovsky, and T. A. Wilson which took an exploratory look at the possibly "perverse" effects of high tax, and interest, rates. The authors tested average and marginal tax rates, current and lagged one quarter as determinates of wage change in manufacturing and concluded:

"Virtually all of the equations estimated are consistent with the view that the level of taxation—whether measured by the average rate of tax or by the marginal rate of tax or both—has a significant positive effect on rates of increase in wages." [164, 59]

In a follow up paper to the above study, [183] Thomas A. Wilson showed that over the period 1964-71 period direct and indirect taxes "accounted for slightly more than one-half of the increase in total unit costs which occurred." He concluded "that the disproportionate growth of indirect taxes and of direct taxes on labour income over the 1964-71 period played a major contributing role in worsening the inflation-unemployment trade-off in the period." [p. 183] Wilson's estimates of the importance of taxes in accounting for increased unit wage costs, may be usefully compared with Artis' 1973 estimate (2) that in the 1967-8 period roughly one third of the increase in consumer prices in the U.K. was attributable to increased indirect taxes, while in the following year the figure was one-half.

A further 1973 contribution to the literature is the Johnston and Timbrell test of a model of wage determination in which changes in personal income taxes are captured in a "retention ratio." [98] These

authors concluded that tax changes had played an important role in wage determination in the U.K. during the 1960's.

In 1974 D. A. K. Auld attempted to measure the degree to which increasing direct and indirect taxes have produced higher prices and wages in Canada over the period 1949-1970, [4]. Auld's equation for the rate of wage change included the personal income tax rate on wages as an explanatory variable, and his equation for the rate of price change included total indirect taxes collected as an explanatory variable. His study led to the conclusion that perhaps 20 per cent of direct taxes, and virtually all indirect taxes were shifted forward in higher wages and prices. His estimate that one-fifth of wage taxes are shifted forward in Canada compares with Gordon's estimate [63] that about one-seventh of the increase in employee taxes are shifted forward in higher wages.

In 1975 C. J. Bruce [28] examined the "wage-tax spiral" in five Canadian industries (forestry and mining, manufacturing, construction, trade, and services and finance). He concluded that:

"... significant, positive correlations exist between changes in wage deductions (for income and unemployment insurance taxes) and changes in money wages in three of the five industrial sectors considered" [28, p. 374]

Hotson's 1976 effort [93, pp. 136-48], also investigated taxes and interest rate changes in a Phillips curve model. The tax variables performed as well as the remaining variables commonly used to "explain" wage and price movements. However, J. C. R. Rowley and D. A. Wilson [151] called into question all the usual "Phillips curve" estimates as containing serious autocorrelation leading to "pseudo-results."

James O'Connor's, *The Fiscal Crisis of the State*, [135] examines U.S. "public" finance from a Marxist perspective and in the light of Marx' dictum that, "tax struggle is the oldest

form of class struggle." O'Connor's premises are

"that the capitalistic state must try to fulfill two basic and often mutually contradictory functions—*accumulation* and *legitimization* ... the state must try to maintain or create the conditions in which profitable capital accumulation is possible and conditions of social harmony. ... State expenditures have a two fold character ... social capital and social expenses. *Social capital* ... is required for profitable private accumulation; it is indirectly productive ... *social expenses*, consist of projects and services ... required to maintain social harmony ... they are not even indirectly productive. The best example is the welfare system." [pp. 6-7]

O'Connor sees the U.S. economy as consisting of essentially three sectors—the competitive sector, the monopoly sector, and the state sector. He shows the state sector has grown relatively to the other two sectors so that they are now each roughly one-third of the economy. His "first basic thesis" is that "the growth of the state is both a cause and effect of the expansion of monopoly capital" [p. 8].

His "second basic thesis" is that the accumulation of social capital and social expenses is a contradictory process which creates tendencies toward economic, social, and political crises" [p. 9]. Among the symptoms of this crises is the present inflation which comes out of an "interesting contradiction" of the tax system.

"... on the one hand, the tax burden falls most heavily on the working class; on the other, the working class requires more and more expenditures (social consumption and social expenses) precisely because of its working class status. It may be true that the greater the level of tax exploitation, the higher the level of government expenditures, and hence the need for even greater tax exploitation." [p. 211]

The increased tax exploitation leads to increased frustration and to "tax revolts" as the realization sinks in that, given progressive taxes, higher wages automatically increase the tax bite. Therefore, O'Connor maintains,

only political action, by workers, rather than collective bargaining can improve their lot—political action with a "socialist perspective." [pp. 228-9, 255-6]

Mundell-Laffer-Wanniski-Perkins

R. A. Mundell has long been known for the views that fiscal and monetary policy are wholly separate instruments and that, in a world of fixed exchange rates, monetary policy should be used to seek balance of payments targets and fiscal policy to seek employment level targets. Since 1971 he has further advocated that a country suffering from both a rising price level and excessive unemployment should adopt a policy "mix" of monetary restraint and fiscal ease in the form of major tax cuts and bond issues. As Mundell put it in 1971,

"... we should use monetary instruments to affect monetary targets and real instruments to affect real targets. We should use tighter money in order to control inflation and an easier budget policy in order to reduce unemployment when both are occurring simultaneously. Tighter money puts a more severe discipline on labour unions and monopolies, thereby reducing inflationary tendencies, while ... a tax reduction, by encouraging the use of idle resources, will tend to increase employment and aggregate supply ..." [130, pp. 113-4]

In recent years Mundell's heretodox ideas¹⁰ have been supported by the empirical studies of A. B. Laffer [111] and developed into the "Mundell-Laffer Hypothesis," of "Global Monetarism." Mundell is considered the intellectual father of the Kemp-Roth tax cut proposals which have come before the U.S. Congress.

¹⁰As that floating exchange rates are an inflationary disaster in destroying the "global money supermarket" and in freeing central bankers from gold restraint; that the "Fed" no longer controls the U.S. money supply because of the Eurodollar market, and that depreciation and devaluation merely steps up the rate of inflation rather than correcting a deficit in the balance of payments. Wanniski believes that the "Mundell-Laffer Hypothesis" may constitute a "Copernican revolution" in economics. (172, pp. 51-2)

Central to Mundell-Lafferism is the "Laffer Curve," which purports that "there are always two tax rates that yield the same revenue." That particular tax rates may be set so high as to reduce tax revenues is undoubtedly true—the U.S. tariff in the late 19th century is often cited as an example. Thus there is nothing new or controversial about the proposition that tax functions are elastic over a certain range, so that cutting the rate could increase revenues. Mundell, Laffer and particularly Wanniski [171, 172] are willing to claim, however, that tax rates are now so high—relative to people and business' toleration of taxes—that taxes can be slashed wholesale—Mundell has advocated tax cuts in the \$30 to \$60 billion range in the U.S. in recent years—with only temporary increases in deficits (if indeed any). If this hypothesis is correct it is very good news for the "world electorate" if not for the prestige of the world's "experts" on public finance. Laffer entertained hopes that Margaret Thatcher's government would move England drastically down "the" curve. England is the country Mundell-Laffer (and Bacon-Eltis) have most in mind as being over taxed. Unfortunately, the econometric tests one would expect Mundell, Laffer *et al* to have made have not been done, or at least, have not been published.

For tax cuts to result in increased tax revenue requires more than proportionate increases in employment and output and, perhaps, a decrease in tax evasion and avoidance. See 8, 25, 26, 59, 60, 70 and 154 for studies generally supportive of an inelastic response of labor supply to tax changes or that the income effect outweighs the substitution effect upon which the Laffer curve, in part, depends. The demand for labor, the supply and demand for investment funds, and expectations of prices, demand, and profits are all important to Laffer's claim. The answers are by no means in. L. Kalseli—Papaefstratiou [104] has recently argued that in the presence

of nominal tax progressivity, expansionary fiscal policy can lead to stagflation. He also holds that in the absence of tax indexation, tax reduction is preferable to increased expenditures when expansionary fiscal policy is required for, like Laffer, he assumes a negative tax rate elasticity of aggregate supply.

J. O. N. Perkins', 1979 book *The Macroeconomic Mix to Stop Stagflation* [142] elaborates and extends Mundell's prescription. Perkins assumes that tax cuts will shift the aggregate supply curve downward, while expansionary monetary policy will shift it upward. [pp. 178–80] Much of his argument depends upon the differing expectations engendered by the two policy moves. Much also depends upon the relationship between the rate of change of "the" money supply and "the" interest rate. Does an increase in the money supply lower the rate of interest ("Keynesian assumption") leave it unchanged ("classical assumption") or raise it as Mundell and Perkins assume?

Mundell, Laffer, Wanniski and Perkins may well be right that massive tax cuts combined with monetary restraint are the best "mix" in a stagflationary world whether or not the "Laffer Curve"¹¹ argument is correct.¹² However, if massive tax cuts increase government deficits, even temporarily, the competition for loanable funds in Mundell's prescribed tight money world may raise interest rates considerably and "crowd out" much investment, thus thwarting some of the increase in aggregate supply which was the purpose of the exercise. Mundell has not met this difficulty and it is interesting that William Krehm, to whom we turn next, has.

Krehm's Social Lien, Aggregate Shift Function and Tax-Bond Proposal

In his *Price in a Mixed Economy: Our Record of Disaster* [106] William Krehm

¹¹Perkins, perhaps wisely, makes no mention of this curve.

¹²For Laffer's own doubts see 111, p. 83.

takes the economics profession to task for misunderstanding inflation and sets up an alternative analysis. Krehm sees price as made up of two components, only one of which economic theory analyzes. He states:

"We should . . . regard the value of aggregate output . . . as consisting of two major components: 1) *core value*—corresponding to costs and profits net of all taxation that directly or indirectly has found its way into price; 2) *the social lien*—representing the sum of all taxes levied on the private sector, including those on its production factors." [106, p. 54]

The rapid growth of government taxation and expenditure has imposed a growing "social lien" element in the prices charged by the market sector. These prices in turn feed back in higher prices of the goods the government buys, requiring still higher taxation which only make matters worse. As real output falls the social lien per unit of output rises. Furthermore, recession leads to demands for increased government transfer payments and stepped up government sector employment, all of which go to swell the social lien, currently or eventually.

A further force Krehm sees as generating our secular inflation he dubs "social revalorization"—the non or extra market pulling and hauling by which relatively disadvantaged groups increasingly attempt to raise their share of the economic pie.

Krehm suggests a partial remedy to the price climb of our time—the amortization of the public capital represented by the existing stock of public and human capital. Society's present investment in public structures, roads, education, etc., was largely financed on a "pay as you go" basis—something no home owner, or private business would be expected to do, and its rapid growth in recent decades has contributed *unnecessarily* to the price rise, he argues. By borrowing against this "hump" of assets, governments could greatly reduce their current taxation and reverse the "shift and countershift" multipliers at work

on the price level. Krehm proposes the "forced sale" of "tax-bonds" in lieu of taxes at below market interest rates, to businesses and individuals. The bonds could be varied in maturity and coupon rate according to the industry or people purchasing them. The argument recalls several of Keynes' points in *How to Pay For the War* regarding the differing morale and incentive effects engendered by bonds and tax receipts. The corporate liquidity squeeze would be much relieved by the gentler "tax-bond" way of finance, as the bonds could be sold (at a discount because of their low interest rate) to raise funds for expansion. Furthermore, if the price level continues to climb, as Krehm expects it to, the real cost to society of redeeming its bonds is much ameliorated. Further, as the public debt is increasingly refinanced with ordinary business and households, the banking and insurance system would compete down the rate of interest charged private borrowers, setting in motion further forces to moderate the price level climb.

In his second book *Babel's Tower: The Dynamics of Economic Breakdown* Krehm also usefully extends his price level analysis by appeals to systems dynamics and carries the concept of social entropy and negentropy far beyond the applications of the second law of thermodynamics made by Georgescu-Roegen. He also extends his detaxation and tax-bonding proposals. He notes that tax-bonds might do more harm than good if they merely become a "soft" form of finance for further disproportionate government spending.

Warsh and Minard—Diffusion and Conflation

In their Loeb prize winning article, "Memo to President Carter: Inflation is Now Too Serious A Matter to Leave to the Economists," [173] D. Warsh and L. Minard nominate the late Clark Gable as most worthy to receive the next Nobel Prize in economics.

The old movie—*Honky Tonk* shows his understanding of the way in which taxes “diffuse” into prices. His response to merchants claims that they can not pay more taxes: “Tell’em to put up the price of beans.” Arguing that price level increases come in “waves” during periods of social revolution Warsh and Minard maintain that the rise of the welfare-warfare state and the attempts of the oil exporting countries to force a new division of the social product is merely the latest example of the process through which new costs diffuse into old prices. Economists miss the real cause of the process because they are enamored with the quantity of money theory of inflation.

Warsh has extended his “complexity” theory of the price level in an article in *Forbes* and a series of articles in *The Boston Globe* [174, 175]. He maintains that economists have prejudged the cause of rising prices in the very word “inflation.” He argues that the quantity theory, the word “inflation” and the equation of exchange all come from Boyle’s Law of Gases, which is a poor model of what happens in an economy undergoing diffusion and “complexification.” When prices are inflated we pay higher prices for the same old goods. When the price of highways, the Shah’s airforce, air bags and depollution equipment are diffused into the price of automobiles what we are undergoing, Warsh maintains, is not inflation but “conflation” which describes “what happens to old costs when new ones are added.” [174, p. 205]

Since the Boyle model has so misled the economist, Warsh suggests that we substitute the Darrow model of “hyper-conflation.” Darrow sold his model to Parker Brothers and *Monopoly* quickly became one of the most successful games of all time. Warsh takes the cost of landing on a square—a “night’s lodging” as the “cost of living index” of the game and asks us to take this as our paradigm. When all lots are purchased, and if no monop-

olies have been obtained, the average price of landing on a square is \$18. When all lots are monopolized the price level doubles to \$36. As the game continues players build houses and hotels on their lots and the price level skyrockets. The money supply increases throughout the game, as a player collects \$200 each time he passes GO. If enough money is injected into the game it continues indefinitely without generating either hyperinflation or collapse. The point of the analogy is that the Quantity of Money does not determine the price level—it is determined by the “rules of the game” and the stage of monopolization. “The diffusion of new costs causes the conflation of old prices.”

Non-professional reader reaction to Warsh and Minard’s Clark Gable piece was wholly favourable (See *Forbes*, January 15, 1977). The reaction of economists was mixed; the late Harry G. Johnson denounced it as “cheap nastiness and sophomoric clever nonsense”; but Walter Eltis, pointed out that he and Robert Bacon “explained the British stagflation in just their way in . . . *Britain’s Economic Problem: Too Few Producers*. It is interesting that H. G. Johnson gave the Bacon and Eltis book a quite favorable review (*Canadian Public Policy*: III:1, Winter 1977, pp. 118–9) finding their ideas “suggestive” and “illuminating” and in a newspaper article (*Toronto Globe and Mail*, February 10, 1977) adopted much of the Bacon and Eltis (and thus the Warsh–Minard) argument.

Ailing Albion—Too Few Producers

A number of British economists have come to the conclusion that a particularly vicious case of the wage-tax spiral lies at the heart of the United Kingdom’s problems of slowed growth of industrial and productivity. Wilkinson and Turner [181] trace the accelerating wage explosions from the mid 1960’s to the ever increasing tax bite out of worker incomes provoking wildly self defeating demands for

high pre-tax incomes. Johnston [99] altered the focus of attention from the relative size (and change of) the “private” VS “public” sector to the “market” VS “non-market” sector.

Turner writes that:

“... our study indicates (fairly decisively, one might think) that ‘orthodox’ fiscal policy against inflation, which as it was practised in Britain in the 1960’s was conceived as mopping up excess demand by increasing taxation—or, even more, by allowing direct tax receipts to rise disproportionately to income—had in fact a perverse effect. Increases in indirect taxation (of several kinds) raised prices and increased the pressure behind wage-demands: and that was particularly the impact of the increasing marginal rate of deduction, by income tax and other levies, from wage income.” [181, p. 115]

Turner concludes with the startling suggestion that the only way for British unions to increase the real incomes of their workers faster than productivity growth without engineering a shift from profits which would result in increased unemployment, would be for them to demand—in concert—both price and wage-reductions. The success of such a program would depend on the degree to which lower British prices would increase Britain’s exports versus the extent that higher British real incomes would boost her excessive imports.

Johnston, Bacon and Eltis trace much of Britain’s woes to the rapid growth of her “non-market” sector which, when coupled with slow productivity growth, has undermined her ability to invest and export. As Bacon and Eltis put it:

“In Britain the growth of non-market expenditure as a ratio of marketed output from 41½ percent to 62½ percent (before tax) has had all these effects, explosive wage inflation, a squeeze on investment in the market sector and balance of payments deterioration . . . All exports and everything on which money is spent must be produced by an economy’s market sector . . . almost all the civilized activities of a modern society are wholly or

largely non-marketed . . . Defence is also non-marketed . . . If its people are prepared to give up marketed output to the government on the necessary scale it will manage . . . but if . . . people are not prepared to part with as much of their marketed output as the government wants the three great difficulties from which Britain suffers must occur in some combination or other. Wages and prices will be pushed up sharply; investment in the market sector will be curtailed; or the balance of payments will deteriorate.” [10, pp. 29, 31–32]

Bacon and Eltis see two possible solutions to England’s difficulties. The “right” solution is to cut public service spending and the losses and subsidies of nationalized industries. When coupled with tax cuts, especially those directed toward industrial investment, these measures could reverse the relative growth paths of the market and non-market sectors. The “left” solution would be to use all the powers of the government to achieve an industry based economy with a large non-market sector by financing at the expense of private services and the upper classes. They point out that Sweden, Norway, and Denmark undertook as rapid a shift into the public sector during the 1960’s and 1970’s as did Britain, but without severe difficulties because of the investment led rise in real incomes.¹³

The Johnston and Timbrell, Bacon and Eltis, view of British inflation is supported in an empirical paper by Henry, Sawyer, and Smith [83]. The authors re-estimated several of the main econometric models of inflation in the U.K. to investigate the reliability of each model. The authors see their results as show-

¹³For some criticism of the Bacon–Eltis thesis and further citations to this literature see the interchange between C. Hadjimatheou and A. Skouras (HS) and Bacon and Eltis (BE) in *The Economic Journal* June 1979 (11, 73) HS maintain that the BE’s figures are “clearly misleading” regarding the size of Britain’s non-market sector and the degree to which it has grown in recent years. They also attack the underlying theory that a growing non-market sector leads to stagflation and balance of payments difficulties. In their reply BE reject all of HS’ points and re-affirm their empirical and theoretical conclusions.

ing there is "no support" for the Phillips/Lipsey curve, "and indeed there is little evidence of a negative (\bar{W} , U) relationship for simple Phillips (i.e., in non-expectations augmented) curves in the post-war period." [83, p. 69] They hold that "expectations augmented" Phillips curves do "not adequately account for money wage changes in the U.K., nor again does this approach indicate the presence of a negative (\bar{W} , U) trade-off." (ibid). They find "no support for the Trade Union pushfulness measure used by Hines," and that Laidler's monetarist model of price inflations is "invalidated by our results though, in fairness, he did not develop the model for application to an open economy." (ibid). The one model that shines out amidst this wreckage is the Sargan's [152] which sees workers as bargaining for a target rate of increase in their real net of tax take home pay. They also find evidence that Wilson's pay "standstill" incomes policy did have a measureable impact on the pace of inflation, and draw the policy conclusion that "income tax concessions raising real net take-home pay would slow down money wage increases." [p. 70]

Summary Comments

Sad experience with stagflation has led some economists to examine the hypothesis that a high and growing rate of taxation can become an inflationary driving force, both directly and indirectly. While this is hardly a major research thrust, given the importance of stagflation in the ungluing of the rosy optimism of a decade ago, over the past 15 years some 80 articles and monographs and ten books have focused upon this question. One interesting contrast between the recent literature and that set off by Colin Clark's supposed "limit" is that nearly all of the recent literature affirms the tax push inflation thesis, while nearly all the articles Clark inspired were negative. Perhaps this is

progress, but it also means that, to date, this concept has not been subjected to the gauntlet of criticism which supposedly refines and purifies scientific work. One of the few attempts to show that a hike in the income tax is unlikely to be inflationary was Blinder's 1973 article [20]. But, by 1974, he had become converted to the opinion that "tax raising may not be the best way to curb inflation." [21, p. 100]¹⁴ Most of the profession, however has taken virtually no notice of the "tax push" hypothesis of inflation. "Tax inflation" theory is a basically middle of the road theory; it is "radical" only in its destructiveness of monetarist and fiscalist ideas. Its basic conservatism is attested to by its increasing appearance in economics textbooks [13, 29, 42, 115, 140] and, as Paul Samuelson once noted, "once an idea gets into these, however bad it may be, it is practically immortal."

Do the insights garnered from this survey of inflation and the rise of the public sector lead to useful policy insights toward ending "stagflation?" The answer, I believe, is a clear "yes." Recognition that the rising prices of our era are, in part, a reflection of the increasing importance of the unpriced public services we receive, should make us more willing to tolerate a price creep, instead of attempting to "end inflation" by choking off aggregate demand. Further, recognition of the inflationary consequence of a rising government sector should help refine our cost-benefit calculations of such expansions and, hopefully, lead to a more revenue dependent public sector and a cut back of the less useful projects.¹⁵ Recognition of the importance of tax shifting in business pricing and wage bargaining behaviour might also add new

¹⁴See also Peacock and Picketts' analysis. (139)

¹⁵In this regard see Richard Bird, *Charging for Public Services: A New Look At an Old Idea*, (16) and A. R. Bailey and D. G. Hull, *A More Revenue Dependent Public Sector*, (12)

dimensions to the formulation and administration of incomes policies. I believe, that the studies surveyed contain insights which can constitute a whole new departure in macro-economic policy—nothing less than a post-Keynesian revolution to end the second Great Depression. See [27, 91] for further exploration of these possibilities.

References

1. Agapitos, George, "Inflationary Effects of Profits Taxes With Reference to the U.K. Manufacturing Sector," *Finanzarchiv*, 35:2, 1976, 235-57.
2. Artis, M., "Some Aspects of the Present Inflation and the National Institute Model," *The Current Inflation*, H. Johnson and A. R. Novay eds., London: Macmillan, 1973.
3. Asimakopulos, A., and J. B. Burbidge, "The Short Period Incidence of Taxation," *Economic Journal*, 84, June 1974, 267-88.
4. Auld, D. A. L., "The Impact of Taxes on Wages and Prices," *National Tax Journal*, 27, March 1974, 147-50.
5. —, "Taxation and Inflation: A Survey of Recent Theory and Empirical Evidence," *Public Finance Quarterly*, 5:4, October 1977, 403-18.
6. —, *Issues in Government Expenditure Growth*, C. D. Howe Research Institute, Montreal, 1976.
7. —, and C. Southey, "The Simple Analytics of Tax-Induced Inflation," *Public Finance*, 32:1, 1977, 37-46.
8. Babey, M., Clark, R. G., Clark, R. M., Holm, L., Stanbury, W. T., "Effects of the Personal Income Tax on Work Effort: A Sample Survey," *Canadian Tax Journal*, 24, Sept-Oct 1978, 582-90.
9. Bacon, Robert, and Walter Eltis, "The Implications for Inflation Employment and Growth of a Fall in the Share of Output that is Marketed," *Bulletin of the Oxford Institute of Economics and Statistics*, 37, November 1975.
10. —, *Britain's Economic Problem: Too Few Producers*, London: Macmillan, 1976, 2nd edition 1978.
11. —, "The measurement of the Growth of the Non-Market Sector and Its Influence: A Reply to Hadjimatheou and Skouras," *Economic Journal*, 89, June 1979, 402-15.
12. Bailey, A. R. and Hull, D. G., *A More Revenue Dependent Public Sector*, Supply and Services Canada, Hull, 1979.
13. Barrett, Nancy S., *The Theory of Macroeconomic Policy*, 2nd ed., Englewood: Prentice, 1975.
14. Beck, Morris, "The Expanding Public Sector: Some Contrary Evidence," *National Tax Journal*, 29, March 1976, 15-21.
15. Benton, Robert T., "Corporation Income Tax Shifting in Investor-Owned Utilities," *American Economist*, 18, Fall 1974, 63-9.
16. Bird, Richard, *Charging For Public Services: A New Look at an Old Idea*, Toronto: Canadian Tax Foundation, 1976.
17. —, "The Growth of Public Service in Canada," in *Public Employment and Compensation in Canada: Myths and Realities*, Toronto: Butterworth, 1978.
18. —, and Foot, David K., "Bureaucratic Growth in Canada: Myths and Realities," *The Public Evaluation of Government Spending*, Doern and Maslove, eds., Toronto: Butterworths, 1979, 121-48.
19. Blair, John M., "Market Power and Inflation: A Short Run Target Return Model," *Journal of Economic Issues*, 9, June 1975, 159-79.
20. Blinder, Alan S., "Can Income Taxes Be Inflationary? An Expository Note," *National Tax Journal*, June 1973.
21. —, and Robert M. Solow, "Analytical Foundations of Fiscal Policy," *The Economics of Public Finance*, Washington, Brookings, 1974, 3-115.
22. —, and Robert M. Solow, "Does Fiscal Policy Matter?," *Journal of Public Economics*, 11, November 1973.
23. Bodkin, Ron, "Real Wages and Cyclical Variations in Employment: A Re-examination of the Evidence," *Canadian Journal of Economics*, 2, August 1969, 353-72.
24. Brennan, G., and Auld, D. A. L., "The Tax

- Cut as an Anti-Inflationary Measure," *Economic Record*, 44, December 1968, 520-5.
25. Brown, C. U., and Dawson, D. A., *Personal Taxation, Incentives and Tax Reform*, London: Political and Economic Planning, 1969.
 26. —, and Levin, E., "The Effects of Income Taxation on Overtime: The Results of a National Survey," *Economic Journal*, 84, December 1974.
 27. Brox, J., Hotson, J., and Koutsoyiannis, A., "Government Policies and Stagflation: Cure or Cause," *Waterloo Economic Series*, No. 109, 1979.
 28. Bruce, C. J., "The Wage-Tax Spiral: Canada 1953-1970," *Economic Journal*, 85, June 1975, 372-6.
 29. Brunhild, Gordon, and Burton, R. H., *Macroeconomic Policy*, Englewood, Prentice, 1974, 439-40.
 30. Burbidge, J. B., "Internally Inconsistent Mixtures of Micro- and Macro-Theory in Empirical Studies of Profits Tax Incidence," *Finanzarchiv*, 35:2, 1976, 218-234.
 31. Burrows, Paul and Hitiris, Theodore, "Estimating the Impact of Incomes Policy," *Bulletin of Economic Research*, 24, May 1972, 42-51.
 32. Cauley, Jon, and Sandler, Todd, "Short-Run Shifting of the Corporate Income Tax," *Public Finance*, 29, 1974, 19-35.
 33. Clark, Colin, "Public Finance and Changes in the Value of Money," *Economic Journal*, 55, December 1945, 371-89.
 34. —, "The Danger Point in Taxes," *Harpers Magazine*, December 1950, 67-69.
 35. —, "Principles of Public Finance and Taxation," Arthur Capper Moore Research Lecture, 1950, Federal Institute of Accountants, Australia.
 36. —, "The Remedy for Inflation," *Encounter*, 45, December 1975, 40-5.
 37. —, "The Scope for the Limits of Taxation," in *The State of Taxation*, A. R. Prest, C. Clark, et. al., Readings in Political Economy 16, London: Institute of Economic Affairs, 1977.
 38. Cragg, J. G., Harberger, A. C., and Mieszkowski, Peter, "Empirical Evidence on the Incidence of the Corporate Income Tax," *Journal of Political Economy*, 75, December 1967, 811-21.
 39. —, "Corporation Tax Shifting: Rejoinder," *Journal of Political Economy*, 78, July-August, 1970, 768-77.
 40. Crandall, Robert W., "Federal Government Initiatives to Reduce the Price Level," *Brookings Papers on Economic Activity*, 1978:2, Special Issues, *Innovative Policies to Slow Inflation*, 401-40.
 41. Dernburg, Thomas F., "The Macroeconomic Implications of Wage Retaliation Against Higher Taxation," *International Monetary Fund Staff Paper*, 21, 1974, 758-88.
 42. —, and McDougall, Duncan M., *Macroeconomics*, New York: McGraw-Hill 1976, 328-43.
 43. Dursansky, R., "The Short-Run Shifting of the Corporation Income Tax in the United States," *Oxford Economic Papers*, 24, 1972, 357-71.
 44. Eckstein, Otto, and Brimmer, Roger, *The Inflation Process in the United States*, U. S. Joint Economic Committee, 1972, Washington GPO, 1972.
 45. Economic Council of Canada, *Third Annual Review: Prices Productivity and Employment*, Ottawa, November 1966.
 46. —, *Ninth Annual Review: The Years Ahead*, Ottawa, 1972.
 47. Eisner, Robert, "Fiscal and Monetary Policy Reconsidered," *American Economic Review*, December 1969, 59, 897-905.
 48. —, "Reply," *American Economic Review*, 61, June 1971, 458-61.
 49. —, "What Went Wrong?" *Journal of Political Economy*, 79, May/June 1971, 629-41.
 50. —, "The Keynesian Revolution Reconsidered," *American Economic Review*, 65, May 1975, 189-94.
 51. —, "Government and Inflation," *Stability and Inflation: Essays in Honour of A. W. H. Phillips*, A. R. Bergstrom, A. J. L. Catt, M. H. Peston, B. D. J. Silverstone, eds., (New York) Wiley, 1978, 103-111.
 52. Elliott, James R., "The Inflationary Effects of Tight Money," *Nebr. Journal of Economics and Business*, Autumn 1962, 43-52.
 53. Eltis, W., "The True Deficits of the Public Corporations," *Lloyds Bank Review*, 131, January 1979, 1-30.
 54. Evans, M. K., and Klein, L. R., *The Wharton Econometric Forecasting Model*, Philadelphia, University of Pennsylvania Press, 1967.
 55. Friedman, Milton, *From Galbraith to Economic Freedom*, Occasional Paper 49, London: Institute of Economic Affairs, 1977.
 56. —, "Inflation and Unemployment," Nobel Lecture, *Journal of Political Economy*, 83:3, June 1977, 451-72.
 57. Galbraith, John Kenneth, "Power and the Useful Economist," *American Economic Review*, 63, March 1973, 1-11.
 58. —, *Economics and the Public Purpose*, Boston: Houghton Mifflin, 1973.
 59. Gayer, D., "The Effects of Wages, Unearned Income and Taxes on the Supply of Labour," *International Economic Review*, 18, February 1977, 101-116.
 60. Goode, Richard J., "The Income Tax and the Supply of Labour," *Journal of Political Economy*, 57, October 1949, 428-37.
 61. —, "On Economic Limit on Taxes: Some Recent Discussions," *National Tax Journal*, 5, 1952, 227-33.
 62. Gordon, George, Lord Byron, *Childe Harold's Pilgrimage*.
 63. Gordon, Robert J., "Inflation in Recession and Recovery," *Brookings Papers on Economic Activity*, 1971, no. 1, 105-58.
 64. —, "The Incidence of the Corporation Income Tax in U.S. Manufacturing, 1925-53," *American Economic Review*, 57, September 1967, 731-58.
 65. —, "Wage-Price Control and the Shifting Phillips Curve," *Brookings Papers on Economic Activity*, No. 2, 1972.
 66. —, "The Impact of Aggregate Demand on Prices," *Brookings Papers on Economic Activity*, 1975, 613-670.
 67. Government of Canada, *Attack on Inflation: A Program of National Action*, Policy Statement tabled in the House of Commons by the Honourable Donald S. Macdonald, Minister of Finance, October 14, 1975, Ottawa.
 68. Government of Canada, *The Way Ahead: A Framework for Discussion*, Working Paper, October 1976, Ottawa.
 69. Green, Christopher, "Recent Inflation: Its Causes and Implications for Public Policy," *Canadian Public Policy II*, Winter 1976, 42-53.
 70. Griffiths, R. T., "The Role of Taxation in Wage Formulation in the Dutch Economy in the First Half of the Nineteenth Century," 'S-Gravenhage: Opgenomen In: Ondernemende Geschiedenis, 1977.
 71. Gunderson, Morley, "Public-Private Wage and Non-Wage Differentials: Some Calculations From Published Tabulations," *Public Employment And Compensation in Canada: Myths and Realities*, Toronto: Butterworth, 1978, 127-66.
 72. Habibagahi, Hamid, and Hotson, John H., "Harrod's Dichotomy and the Price Level," *Economic and Business Bulletin*, Spring-Summer 1972, 1-8.
 73. Hadjimatheou, G., and Skouras, A., "Britain's Economic Problem: The Growth of the Non-Market Sector?," *Economic Journal*, 89, June 1979, 392-401.
 74. Hall, Robert E., "The Macroeconomic Impact of Changes in Income Taxes in the Short and Medium Runs," *Journal of Political Economy*, 86:2:2, April 1978, *Research in Taxation a Conference of the National Bureau of Economic Research*, 571-585.
 75. Hansen, Bent, *The Economic Theory of Fiscal Policy*, London, Allen and Unwin, 1958, Chapter XIII.
 76. —, "Fiscal and Monetary Policy Reconsidered: Comment," *American Economic Review*, 61, June 1971, 444-6.
 77. Harris, Donald J., "Inflation, Income Distribution and Capital Accumulation in a Two-Sector Model of Growth," *Economic Journal*, 77, December 1967, 814-33.
 78. Harrod, Sir Roy, "Re-assessment of Keynes' Views on Money," *Journal of Political Economy*, 78, July-August 1970, 617-25.

79. Heilbroner, Robert L., *Beyond Boom and Crash*, Norton, New York, 1978.
80. Heller, Walter W., "How High Can Taxes Go?," *Proceedings of the Forty-Fifth Annual Conference on Taxation*, National Tax Association, 1952, Sacramento, 1953, 243-56.
81. Henry, S. G. B., and Desai, M. J., "Fiscal Policy Simulation and Stabilization," *Rev. Econ. Stud.*, 43, July 1975, 347-59.
82. —, and Orenerod, P. A., "Incomes Policy and Wage Inflation: Empirical Evidence for the U.K. 1961-1977," *Nat. Inst. Econ. Rev.*, 85, August 1978, 31-39.
83. —, Sawyer, M. C., Smith P., "Models of Inflation in the United Kingdom: An Evaluation," *Nat. Inst. Econ. Journal*, 77, August 1976, 60-71.
84. Higgins, Benjamin, "A Note on Taxation and Inflation," *Canadian Journal of Economics and Political Science*, 19, August 1953, 392-402.
85. Holzman, F. D., 146, 156, 172, "Income Determination in Open Inflation," *Review of Economics and Statistics*, 32, May 1950, 150-8.
86. Hotson, John H., *Guideposts, Interest and Tax Push, and Amnesia*, Denver, National Council for Sound Monetary Policy, 1967.
87. —, "Neo-Orthodox Keynesianism and the 45 Heresy," *Nebraska Journal of Economics and Business*, Autumn 1967, 6, 34-49.
88. —, "Changes in Sectoral Income Shares: Some Neglected Factors in Inflation," *Nebraska Journal of Economics and Business*, 10, Winter 1971, 3-12.
89. —, "Adverse Effects of Tax and Interest Hikes as strengthening the Case for Incomes Policies," *Canadian Journal of Economics*, IV, May 1971, 164-81.
90. —, "Fiscal and Monetary Policy Reconsidered: Comment," *American Economic Review*, 61, June 1971, 448-51.
91. —, "Policies to End Stagflation: The ABC on D Day Plan," *Waterloo Economic Series*, 105.
92. —, and Halibagahi, H., "Comparative Static Analysis of Harrod's Dichotomy," *Kyklos*, 25, No. 2, 1972, 326-44.
93. —, with Habibagahi, H., and Lerner, G., *Stagflation and the Bastard Keynesians*, Waterloo, Waterloo University Press, 1976.
94. Job, B. C., "More Public Services Spur Growth in Government Employment," *Monthly Labour Review*, 101, September 1978, 3-7.
95. Johansen, L., *Public Economics*, Amsterdam, North Holland Publishing Co., 1965.
96. Johnson, Harry G., "Schools Should Train for Jobs," *Toronto Globe and Mail*, February 10, 1977.
97. Johnston, J., "A Model of Wage Determination Under Bilateral Monopoly," *Economic Journal*, September 1972, 837-52. Reprinted in D. Laidler and D. Purdy (eds.), *Inflation and Labour Markets*, Manchester, Manchester University Press, 1974.
98. —, and Timbrell, "Empirical Tests of a Bargaining Theory of Wage Determination," *Manchester School of Economic and Social Studies*, June 1973, 141-67.
99. —, "A Macro-Model of Inflation," *Economic Journal*, June 1975, 288-308.
100. Jonson, P. D., "Money and Economic Activity in the Open Economy: The United Kingdom 1880-1970," *Journal of Political Economy*, 84, October 1976, 979-1012.
101. Jump, G. V., and Wilson, T. A., "Tax Policy Options for Increasing Employment Without Inflation," *Canadian Tax Journal*, 20, March-April 1972, 144-53.
102. —, and Wilson, T. A., "Fiscal Policy in Recession and Recovery, 1975-1976," *Canadian Tax Journal*, 24, March-April 1976, 132-43.
103. Kaldor, Nicholas, "Inflation and Recession in the World Economy," *Economic Journal*, 86, December 1976, 703-14.
104. Kalseli-Papaefstratiou, Louka, "Nominal Tax Rates and the Effectiveness of Fiscal Policy," *National Tax Journal*, 32, March 1979, 77-82.
105. Keynes, John Maynard, *The General Theory of Employment, Interest and Money*, Harcourt, New York, 1936.
106. Krehm, William, "La Stabilité des Prix et le Secteur Public," *Revue Economique*, 21, May 1970, 425-66.
107. —, *Price in a Mixed Economy: Our Record of Disaster*, Toronto: Thornwood, 1975.
108. —, *Babel's Tower: The Dynamics of Economic Breakdown*, Toronto: Thornwood, 1977.
109. Krzyaniak, M., and Musgrave, R. A., *The Shifting of the Corporation Income Tax*, Baltimore: John Hopkins Press, 1973.
110. —, and Musgrave, R. A., "Corporation Tax Shifting: A Response," *Journal of Political Economy*, 78, July-August, 1970, 768-77.
111. Laffer, Arthur B., "Dealing with the Dilemma of Stagflation," *Stagflation An International Problem*, Randall Hinshaw, ed., Marcel Dekker, New York, 1977, 71-98.
112. Laidler, D. E. W., and Parkin, J. M., "Inflation A Survey," *The Economic Journal*, 85, December 1975, 741-809.
113. Lerner, Abba, "Three Kinds of Inflation," *Policy Formation in an Open Economy*, R. A. Mundell and B. E. van Snellenberg, eds., Waterloo, University of Waterloo, 1974, 153-70.
114. Levesque, Robert J., "The Shifting of the Corporation Income Tax in Canada 1926-65: Comment," *Canadian Journal of Economics*, 3, February 1970, 158-67.
115. Lindauer, John, *Macroeconomics*, 2nd ed., New York: Wiley, 1971, 378-82.
116. Lindbeck, Assar, "Theories and Problems in Swedish Economic Policy in the Post-War Period," *American Economic Review*, 58, June 1968, 1-87.
117. Lipsey, R. G., and Parkin, J. M., "Incomes Policy: A Re-appraisal," *Economica*, May 1970, 115-38.
118. Lustgarten, Steven, "Administered Inflation: A Re-appraisal," *Economic Inquiry*, 8, June 1975, 191-205.
119. Maital, Shlomo, "When Is a Temporary Tax Hike Inflationary?," *National Tax Journal*, 24, December 1971, 507-10.
120. Maynard, Geoffrey, and W. van Ryckeghem, *A World of Inflation*, London, B. T. Batsford Ltd., 1976, Chapter 6, "The Contribution of Government to Inflation in the O.E.C.D. Countries."
121. McLure, Charles E., "Tax Incidence, Macroeconomic Policy, and Absolute Prices," *Quarterly Journal of Economics*, 84, May 1970, 254-67.
122. Means, Gardiner C., "The Administered Price Thesis Confirmed," *American Economic Review*, 62, June 1972, 292-306.
123. Miller, M. H., "Can A Rise in Import Prices Be Inflationary and Delfationary?," *American Economic Review*, 66, September 1976, 501-19.
124. Miller, Norman C., "Government Debt, Aggregate Supply and Fiscal Policy," *Journal of Economic Studies*, 2, November 1975, 100-113.
125. Minsky, Hyman P., *John Maynard Keynes*, New York: Columbia University Press, 1975.
126. —, "Financial Resources in a Fragile Financial Environment," *Challenge*, July/August 1975, 6-13.
127. —, "The Financial Instability Hypothesis: An Interpretation of Keynes and an Alternative to 'Standard' Theory," *Nebraska Journal Of Economics and Business*, 16:1, Winter 1977, 5-16. Reprinted in *Challenge*, March/April 1977, 20-7.
128. Moffat, William R., "Taxes in the Price Equation: Textiles and Rubber," *Review of Economics and Statistics*, August 1970, 253-61.
129. Morag, Amotz, *Taxes and Inflation*, New York: Random, 1965.
130. Mundell, Robert A., "Options in Therapy: The Role of Fiscal and Monetary Policy," *Inflation as a Global Problem*, Randall Hinshaw ed., Baltimore, Johns Hopkins University Press, 1972, 112-127.
131. —, and Machlup, F., eds., *Economic Integration, Worldwide, Regional, Sectoral*, London: Macmillan, 1976.
132. Musgrave, R. H., "General Equilibrium Aspects of Incidence Theory," *American Economic Review*, 43, May 1953, 504-17.
133. —, *The Theory of Public Finance*, New York: Irwin, 1959.
134. Oakland, W. H., "A Survey of the Recent Debate on the Short-Run Shifting of the

- Corporation Income Tax," *Proceedings of the 62nd Annual Conference of the National Tax Association*, 1969, 525-47.
135. O'Conner, James, *The Fiscal Crisis of the State*, New York: St. Martins Press, 1973.
136. Okun, Arthur M., "The Great Stagflation Swamp," *Challenge*, 20, Nov/Dec 1977, 6-13.
137. Parker, James E., and Zieha, "Inflation, Income Taxes and the Incentive for Capital Investment," *National Tax Journal*, 29, June 1976, 179-89.
138. Peacock, Alan T., and Williamson, John, "Consumption Taxes and Compensatory Finance," *Economic Journal*, 77, March 1967, 27-47.
139. —, and Ricketts, Martin, "The Growth of the Public Sector and Inflation," *The Political Economy of Inflation*, Fred Hirsch and John H. Goldthorpe, eds., London, Martin Robertson, 1978, 117-136.
140. —, and Shaw, G. K., *The Economic Theory of Fiscal Policy*, revised edition, London: Allen and Urwin, 1976.
141. Peckman, Joseph A., and Meyer, Thomas, "Mr. Colin Clark on the Limits of Taxation," *Review of Economics and Statistics*, 34, August 1952, 232-42.
142. Perkins, J. O. N., *The Macroeconomic Mix to Stop Inflation*, London: Macmillan, 1979.
143. Phillips, A. W., "The Relationship Between Unemployment and the Rate of Change of Money Wages in the United Kingdom, 1861-1957," *Economica*, November 1958, 283-99.
144. Pitchford, John, *A Study of Cost and Demand Inflation*, Amsterdam: North Holland, 1963.
145. —, and Turnovsky, Stephen J., "Income Distribution and Taxes in an Inflationary Context," *Economica*, August 1975, 272-82.
146. —, "Cost and Demand Elements in the Inflationary Process," *Review of Economic Studies*, 24, 1957, 139-48.
147. —, and Turnovsky, Stephen J., "Some Effects of Taxes on Inflation," *Quarterly Journal of Economics*, 60, November 1976, 523-39.
148. Qualls, P. D., "Market Structure and Price Behaviour in U.S. Manufacturing 1967-72," *Quarterly Review of Economics and Business*, 18, Winter 1978, 35-57.
149. Rolph, E. R., *The Theory of Fiscal Economics*, New York, 1954.
150. —, and Break, G. F., *Public Finance*, New York, 1960.
151. Rowley, J. C. R., and Wilton, D. A., "Quarterly Models of Wage Determination: Some New Efficient Estimates," *American Economic Review* 63, June 1963, 380-9.
152. Sargan, J. D., "Wages and Prices in the United Kingdom: A Study in Econometric Methodology," in Hart, P. E., Mills, G., and Whitaker, J. K., (eds.) *Econometric Analysis for National Economic Planning*, London: Butterworth, 1964.
153. Seidman, Laurence S., "A Payroll Tax-Credit to Restrain Inflation," *National Tax Journal*, 29, December 1976, 398-412.
154. Shapiro, Edward, "The Surtax Labour Supply Reaction and the Rate of Inflation," *Nebr. Jour. of Econ. and Bus.*, 11, Summer 1972, 49-56.
155. Smith, Dan Throop, "Note on the Inflationary Consequences of High Taxation," *Review of Economics and Statistics*, 34, August 1952, 243-7.
156. Smith, Lawrence B., "Canada's Incomes Policy: An Economic Assessment," *Canadian Tax Journal*, 24, January-February 1976, 67-73.
157. Smith, Robert E., "A Theory of The Administered Price Phenomenon," *Journal of Economic Issues*, 13, June 1979, 629-45.
158. Smithies, Arthur, "Federal Budgeting and Fiscal Policy," *A Survey of Contemporary Economics*, Philadelphia, 1948.
159. Solow, Robert M., "The Intelligent Citizen's Guide to Inflation," *The Public Interest*, 38, Winter 1975, 30-66.
160. Spencer, Byron G., "The Shifting of the Corporation Income Tax in Canada 1926-65," *Canadian Journal of Economics*, 2, February 1969, 21-34.
161. —, "The Shifting of the Canadian Income Tax: Reply," *Canadian Journal of Economics*, 3, February 1970, 158-67.

162. Stahl, Ingolf, "The Effects of Certain Taxes on Wage Negotiations," *Swedish Journal of Economics*, 77, 1975, 121-34.
163. Strebel, Paul, "Value Added Policy: A Supplement to Deflationary Demand Management," *Public Finance*, 33, 1-2, 1978, 135-47.
164. Taylor, L., Turnovsky, S., and Wilson, T., *Inflationary Process in North American Manufacturing*, Ottawa: Prices and Income Commission, 1973.
165. Taylor, Robert, *The Fifth Estate, Britain's Unions in the Seventies*, London: Routledge and Kegan Paul, 1978.
166. Tobin, James and Hall, Challis, A., "Income Taxation, Output and Prices," *Economic Internazionale*, August 1955, 522-42; November 1955, 742-61; and February 1966, 1-8. Reprinted in Tobin, James, *Essays in Economics*, Vol. 1, London: North Holland, 1971.
167. Todd, Ralph H., "Evidence of Immediate Tax Shifting in U.S. Manufacturing 1948-1967," *Nebr. Jour. Econ. and Bus.*, 12, Spring 1973, 55-63.
168. Turek, J. L., "Short-Run Shifting of the Corporate Income Tax in Manufacturing," *Yale Economic Essays*, 10, 1970, 127-48.
169. Turnovsky, Stephen J., "On the Role of Inflationary Expectations in a Short-Run Macroeconomic Model," *Economic Journal*, 84, June 1974, 317-37.
170. Von Furstenberg, George M., "Individual Income Taxation and Inflation," *National Tax Journal*, 28, 1975, 117-25.
171. Wanniski, Jude, "The Mundell-Laffer Hypothesis—A New View of the World Economy," *The Public Interest*, 39, Spring 1975, 31-52.
172. —, *The Way the World Works—How Economies Fail—and Succeed*, New York: Basic Books, 1978.
173. Warsh, David and Minard, Lawrence, "Memo to President Carter: Inflation is Now Too Serious a Matter to Leave to the Economists," *Forbes*, November 15, 1976, 121-40. See also "Aftermath: . . .," *Forbes*, January 15, 1977, 44-6.
174. —, "The Great Hamburger Paradox," *Forbes*, September 15, 1977.
175. —, "The Real World," *The Boston Globe*, June 4, 1979, 25; June 12, 1979 10; June 17, 1979 10; June 18, 1979, 16; June 25, 1979, 16.
176. Weintraub, Sidney, *An Approach to the Theory of Income Distribution*, Chilton: Philadelphia, 1958.
177. —, *Classical Keynesianism, Monetary Theory, and the Price Level*, Chilton: Philadelphia, 1961.
178. —, and Wallich, H., "A Tax-Based Incomes Policy," *Journal of Economic Issues*, June 1971, 1-19. Reprinted in S. Weintraub, *Keynes and the Monetarists*, New Brunswick: Rutgers University Press, 1973, 103-24.
179. Weiss, Leonard W., "Stigler, Kindahl, and Means on Administered Prices," *American Economic Review*, 67, September 1977, 610-19.
180. Wells, Paul, "Keynes Dynamic Disequilibrium Theory of Employment," *Quarterly Review of Economics and Business*, January 1974, 89-92.
181. Wilkinson, Frank, and Turner, H. A., "The Tax-Wage Spiral and Labour Militancy," in Jackson, Dudley, Turner, H. A., and Wilkinson, Frank, *Do Trade Unions Cause Inflation?*, Cambridge: Department of Applied Economics, Occasional Paper 36, 1972, 2nd ed., 1975.
182. Wilson, T. A., and Eckstein, O., "Short-Run Productivity Behaviour in U.S. Manufacturing," *Review of Economics and Statistics*, 46, February 1964, 41-59.
183. —, "Taxes and Inflation," Canadian Tax Foundation, *1972 Conference Report, Proceedings of the Twenty-Fourth Tax Conference*, 1973, 174-84.
184. Wolfe, "Professor Higgins on the Limits of Taxation," *Canadian Journal of Economics and Political Science*, 20, May 1954, 236-7.
185. Woodward, F. O., and Siegelman, H., "Effects of the 1965 Federal Excise Tax Reduction Upon the Prices of Automobile Replacement Parts," *National Tax Journal*, 20, September 1967, 250-7.