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Can, or should, a central bank inflation target?

Abstract: *Classical theory monetarists assumed the quantity theory's equation of exchange gave the central bank direct control of inflation via an exogenous money supply. After Milton Friedman's "natural rate of unemployment" thesis, classical theory recognized that inflation targeting could only be achieved by affecting the unemployment rate. Keynes's theory argues that the central bank can target inflation only via installing an "incomes policy of fear."*

Key words: *incomes policy, natural rate of unemployment, quantity theory.*

Today's conventional wisdom states that central banks will be very successful if they engage in developing a monetary policy that targets a specific rate of inflation. To understand whether a central bank can successfully pursue an inflation target policy, we must inquire (1) what the theory is that informs us whether a central bank can inflation target, and (2) what the mechanism is that converts a specific monetary policy into achieving a specific rate of inflation.

The monetarist theoretical foundation

In the 1950s and early 1960s, Milton Friedman's brand of monetarism argued that the central bank could exogenously control the money supply and therefore, via the quantity theory's equation of exchange, directly affect the price level. Later, in the 1960s and in 1970s, Friedman implicitly recognized the lack of relevance of a naïve quantity theory of money for determining the effect of a central bank's policy. Accordingly, Friedman modified his quantity theory analysis with his short-run concept of a "natural rate of unemployment." Nevertheless, in the long run, Friedman still believed that the simple quantity theory of money equation of exchange governed the price level (1970, p. 222).

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Journal of Post Keynesian Economics / Summer 2006, Vol. 28, No. 4 689

0160–3477 / 2006 $9.50 + 0.00.

Friedman's natural rate of unemployment analysis recognized that, in the short run, a central bank's monetary policy could affect changes in the rate of inflation by altering real effective demand and the unemployment rate until the natural rate of unemployment was achieved. This natural unemployment rate, Friedman claimed, reflected short-run institutional barriers in the labor market that operated within a Walrasian quantity theory equational framework to identify a single rate of unemployment—the natural rate—that would maintain a constant rate of inflation. If the central bank adopted a specific monetary policy, given institutional labor market barriers, then the resulting interest rate affected aggregate demand. If the resulting unemployment rate was less than the natural rate of unemployment, then the rate of inflation would accelerate. If the achieved rate of unemployment exceeded the natural rate, then the rate of inflation would decelerate.

Until the 1990s, most monetarists' arguments assumed that the natural rate of unemployment was a parametric constant that would not change over time. Accordingly, it was a simple matter for monetarists to change their tune and to suggest that what was necessary was a monetary policy that targeted a specific rate of unemployment that was considered the natural rate. For example, until the late 1990s, the conventional wisdom was that 6 percent unemployment was the natural rate to be targeted to achieve a stable (small) measured inflationary rate.[1] But, in the 1990s, this constancy of the natural unemployment rate view tended to conflict with the ongoing fact of experience, as unemployment rates continually fell below 6 percent without any tendency for the rate of inflation to accelerate. A continuously changing "natural rate of unemployment" therefore became an impossible moving target for a central banker to hit. If the natural rate of unemployment could vary over time, then targeting a specific rate of unemployment to control inflation had to be abandoned. Instead, the "makers" of conventional wisdom argued that the central bank had to target a specific (desired) rate of inflation that, by definition, would not change over time.[2]

[1] A slightly positive, but stable, measured inflation rate was considered desirable because the measured price indices did not take into account quality differences. Hence, a small positive measured inflation rate, when adjusted for quality improvements, was likely to approach a zero rate of inflation.

[2] Of course, one could still argue what measured index should one target—that is, should it be the GDP price deflator, the consumer price index, the core inflation rate index ignoring food and energy prices, and so on.

It should be noted that when Friedman introduced his concept of the natural rate of unemployment, he was essentially giving up any rationalization that the central bank could exogenously control the quantity of money to directly affect the rate of inflation. Instead, there was a subtle change in the monetarist philosophy that implicitly recognized that the money supply would respond endogenously to central bank decisions to directly affect the basic interest rate—that is, the federal funds rate in the United States, the bank rate in the United Kingdom, and so forth. Accordingly, if a central bank is to aim its monetary policy at a specific inflation target, say, 2 percent per annum, then the central bank must continually change its basic interest rate as long as there is an observable difference between the actual inflation rate and the targeted rate—raising the basic rate (in small increments) when the actual rate exceeds the target rate, and lowering the basic rate when the current inflation rate is less than the targeted rate. The Holy Grail of a "neutral" rate of interest that will achieve the target rate of inflation while maintaining employment at or close to full employment remains an unknown value.

It is on this vague slippery slope notion of a variable natural rate of unemployment that the conventional wisdom of the desirability of a central bank targeting a specific inflation rate target rests. If there is no natural rate of unemployment, or a neutral rate of interest, then the whole notion of the desirability to subject monetary policy to attempt to achieve an overriding and unchangeable inflation rate target collapses.

Keynes view of the function of a central bank and inflation

In Keynes's *General Theory* (1936, p. 159) money is, neither in the short run nor the long run, neutral. Consequently, Keynes's general theory analysis suggests that any monetary policy that affects the quantity of money in the system or the rate of interest (and therefore the market value of liquid financial assets) will impact directly on real economic outcomes. In Keynes's world of nonergodic uncertainty, where money is never neutral, the central bank has two primary functions that involve the provision of liquidity—and not a primary function of determining the rate of inflation.

As early as 1930, Keynes suggested that bank "credit is the pavement along which production travels, and the bankers if they knew their duty, would provide the transport facilities to just the extent that is required in order that the productive powers of the community can be employed at their full capacity" (1930, p. 220). Consequently, the first function of any central bank, as controller of the banking system, is to encourage

bankers to make credit (liquidity) available as cheaply as possible as long as the economy has significant idle resources. The second important function of any central bank is to assure stability and orderliness in the nation's financial markets—and thereby assuring the liquidity of the traded financial assets. This later function was merely an extension of Bagehot's nineteenth-century notion that the central bank had a vitally important role to play as the lender of last resort.

Given these two primary functions of a central bank—namely, (1) to encourage a cheap money policy as long as the economy is at less than full employment, and (2) to ensure the liquidity and therefore the stability of the major financial markets in the economic system—what then is the role of the central bank in fighting inflation in Keynes's general theory model of a money-using production economy?

To comprehend the basic inflation problems in the real world of modern developed monetary economy requires analysis:

1. An economic system moving irreversibly through calendar time on an irreversible past to an uncertain and potentially unpredictable (nonergodic) future. Errors by both buyers and sellers in the real world can be substantial and therefore do not cancel out. The resulting time series of economic data reflect the result of important nonergodic events so that uncertainty as opposed to probabilistic risk threatens all economic agents. Contracts in terms of money are human institutions used by economic decision makers to constrain cash–outflow liabilities and assure future cash inflows of agents facing an uncertain future.
2. A civilized economic system possesses the human institutions of money and markets with time-related spot and forward money contracts. In all modern money-using economies, production and exchange processes are organized via money contracts in either a spot market or a forward (futures) market. Spot market contracts involve agreements for delivery and payment immediately, or on the spot. Forward market contracts, on the other hand, are contracts entered into today that specify delivery by the seller and payment by the buyer at a specific future date. Of course, in the real world, actual contracts can often be a complex combination of both spot and forward contracts. For example, when an individual purchases a shirt in a department store, he or she engages in a spot market purchase (a spot contract). If payment is made via a credit card, then the credit card issuer pays for the shirt on the spot and the individual enters into a forward loan contract with the credit card issuer.

Accordingly, two sets of prices potentially exist at any point of calendar time. These are spot prices—the prices one pays for immediately delivery (which are the equivalent of Alfred Marshall's market period prices)—and forward prices, which are the contractual prices specified to be paid at a future date (Marshall's short-run flow-supply prices). Marshall, the teacher of Keynes and a famous economist in his own right, noted that the spot market period prices could be at any level that cleared the market—even if the spot price did not cover the costs of production—while the short-run (forward) supply prices are the amounts that buyers must be contractually willing to pay to encourage producers to undertake action today in order to assure the delivery of the product at a specific future date. In other words, forward prices are associated with the necessary money costs of production (including profits) that are required to be paid to achieve a specific production output target at a specific point of time.

Why must all market transactions be time related? Time is a device that prevents everything from happening at once. Production takes time, and, hence, in a market-oriented economy, most production transactions along the nonintegrated chain of firms involves forward contracts. For example, the hiring of factor inputs (especially labor) and the purchase of materials for the production of goods will normally require forward contracting, if the production process is to be planned efficiently. The financing of such forward production cost commitments (that is, taking a "position" in working capital goods) typically requires entrepreneurs to have money available to discharge these input purchase liabilities at one or more future dates before the product is ready for sale and delivery to the ultimate buyer. At the point of time when the product is finally sold to the buyer and payment received, the entrepreneurs' position in working capital goods is liquidated.

While orthodox neoclassical theory may recognize the concept of contracting in forward markets, classical (general equilibrium) theory presumes that all payments are made at the initial instant of contract signing at the beginning of the period of analysis. Accordingly, the real-world ubiquitous liquidity problem of entrepreneurs in capitalist economies is left unattended by mainstream economists, who consequently are deserving recipients of the businessman's tradition jibe: "They have never had to meet a payroll!"

On the other hand, Keynes recognized that positions in working capital are necessary because final goods take time to produce. Keynes's monetary theory of production explains why and how entrepreneurs attempt to meet their payroll (and other) contractual obligations.

In his *Treatise on Money* (1930, pp. 155–156), Keynes identified two types of inflation—commodity or capital inflation (or deflation) and an incomes inflation (or deflation). The former inflation type is identified with rising spot market contractual prices over time, where, at any point in time, only preexisting stocks of goods could be traded. Because production takes some calendar time to occur, there can be no available augmentation of existing stocks for immediate delivery in spot markets to constrain this spot market inflation.

The second form of inflation, incomes inflation, is associated with the rise in the flow-supply prices at any given level of output flow in forward markets—that is, the money costs of production associated with each unit of goods produced. Of course, the money costs of production represent the income payments to the owners of factors of production.

If, at any moment, the demand for immediate delivery of producible goods increases, the spot price of these goods will increase, creating a commodity or capital inflation because the available stock supply cannot be altered. Holders of the preexisting (durable) producibles will implicitly obtain a capital gain as today's spot price increases relative to yesterday's spot price. Accordingly, Keynes labeled such a spot market inflation a "capital inflation."

If the money costs of production necessary at any level of output increase, then the owners of the factors of production will receive higher money incomes that are not offset by productivity increases. Accordingly, Keynes called this rising price phenomena associated with the forward prices of producible goods an "incomes inflation," for it connotates that owners of factors of production are earning higher money incomes than before. This incomes inflation terminology highlights the obvious, but often neglected, fact that, given productivity relations, inflationary increases in the prices of domestic producible goods are always associated with (and the result of) an increase in someone's money income earned in the production process. Accordingly, if one is to target the rate of inflation of producible goods, one must limit the rise in the money income of owners of factors of production.

The inflation process in a Keynes world

Spot prices, by definition, move in step with changes in the demand for existing products (ignoring changes in reservation demand).[3] Thus, at

[3] Reservation demand is the demand by current holders to hold their preexisting producibles off the market in order to obtain a higher price in the future. Such speculation can occur as long as expectations of future higher spot prices exceed the costs of carrying these existing durables to the future date.

any moment in calendar time, every unexpected sudden increase in demand for products or services for immediate delivery will produce an increase in spot prices. Nevertheless, it is the effect on forward—not spot—prices that are important for a continuing (over calendar time) inflation problem. No matter how high spot prices go at any point of calendar time, if buyers are willing to wait the gestation period for the production of additional output, then buyers can always order today new goods for delivery at a future date at today's forward flow-supply price offer by entrepreneurs. If, despite the hypothetical increase in spot demand, the forward supply prices remain stable over time, then the spot price inflation can only be a temporary (market period) phenomena. Moreover, to the extent that the spot price of commodities with long gestation periods are the inflation problem, and there is no spillover causing a rise in the money costs of production, then the policy solution inflation is as old as the biblical story of Joseph and the Pharaoh—namely, the holding by the government of buffer stocks. The explanation is simple.

Spot prices require immediate delivery. Since, by hypothesis, the production of these goods requires a significant period of time, only goods that already have been produced and are currently being stored, as shelf-inventory can, in reality, be sold in spot markets. Any sudden increase in demand for immediate delivery (or decline in shelf-inventory supplies) will cause a *spot or commodity price inflation*. The result will be a windfall change in the wealth of those possessing the existing commodities.

Buffer stocks

Since a spot or commodity price inflation occurs whenever there is a sudden and unforeseen change in demand or available supply *for immediate delivery,* this type of inflation can easily be avoided if there is some institution that is not motivated by self-interest but, instead, maintains a "buffer stock" to prevent unforeseen changes in spot demand and supply from inducing significant spot price movements. A buffer stock is nothing more than some commodity shelf-inventory that can be moved into and out of the spot market to buffer the market from disruptions by offsetting the unforeseen changes in spot demand or supply.

For example, since the oil price shocks of the 1970s, the United States has developed a "strategic petroleum reserve" stored in underground salt domes on the coast of the Gulf of Mexico. These oil reserves are designed to provide emergency market supplies to buffer the domestic oil spot market if there is a sudden decrease in oil supplies from the politically unstable Middle East. The strategic use of such a strategic petroleum reserve means that the spot price of oil will not increase as much as it otherwise would if, for example, a political crisis broke out in

the Middle East. In other words, a spot oil price inflation could be avoided as long as the buffer stock remained available to offset any production shortage. A case in point occurred at the outbreak of the first (short) Iraqi War of 1991 (called Desert Storm) when the U.S. government announced that oil from this strategic petroleum reserve would be sold to refiners. This announcement assured domestic refiners that they need not worry about a sudden domestic shortage of petroleum due to the war. The result was that during the brief ten-day duration of the war, the spot price of oil was basically unchanged.

In the absence of such buffer stocks of commodities, every unexpected change in spot demand or available supply will produce an immediate change in spot prices. In times of great uncertainty about the future use or availability of important commodities, such as oil, metals, and so on, the spot price can fluctuate dramatically in short periods of time—as they did during brief periods in the 1970s and 1980s.

Rising spot prices signal an inventory shortage, thereby encouraging entrepreneurs to expand their production. The resulting rebuilding of inventories will end the spot price inflation. Falling spot prices signal producers that inventories are excessive. Managers will cut back future production to work off the existing inventories, thereby stopping the price decline. Essentially, spot price inflation (or deflation), provided it does not induce change in the future costs of production, should subside as it encourages entrepreneurs to take on inventory adjustments.

Unfortunately, when the spot prices of commodities are rising, it may take too long for new supplies to come to market. Buyers may not be able to wait for a return to more normal supply–demand conditions, or they may be stampeded by fears of an uncertain future into thinking that the current spot price inflation will permanently inflate the future costs of production, thereby encouraging producers to raise supply contractual prices.

The policy solution to spot price inflation that threatens to outlive the buyers' patience is as old as the biblical story of Joseph and the Pharaoh's dream of seven fat cows followed by seven lean cows. Joseph—the economic forecaster of his day—interpreted the Pharaoh's dream as portending seven good harvests where production would be much above normal followed by seven lean harvests where annual production would not provide enough food to adequately feed the population. Joseph's civilized anti-inflation policy proposal was for the government to buy the excessive produce from the market in the good years of bountiful harvests and to store this *buffer stock* of grain to be sold on the market during the seven lean years. This policy would not only maintain a stable

price over the 14 harvests and avoid inflation in the bad years but it would stabilize farmers' incomes from plunging in the good harvest years while preventing farmers' incomes from inflating in the bad harvest years. The Bible records that this buffer stock policy was a resounding economic success.

For a decentralized market economy moving irreversibly through calendar time toward an uncertain future, forward money contracts for inputs in the production process are essential to the execution of efficient production plans. Moreover, with slavery and peonage illegal, the money wage contract is the most ubiquitous forward contract of all. Since labor hiring, and wage payments, precede the delivery of newly produced goods, it is the (average) money wage, relative to labor productivity, that is the foundation upon which the price level of domestic newly produced goods rests.

Arrow and Hahn, after 12 difficult chapters in their 1971 book *General Competitive Analysis* noted:

> the terms in which contracts are made matter. In particular, if money is the good in terms of which contracts are made, then the prices of goods in terms of money are of special significance. This is not the case if we consider an economy without a past or a future. . . . If a serious monetary theory comes to be written, the fact that contracts are made in terms of money will be of considerable importance. (1971, pp. 356–357)

Furthermore, as Arrow and Hahn recognized, in "a world with a past as well as a future and in which contracts are made in terms of money, no [general] equilibrium may exist" (ibid., p. 361). That is, all existing proofs for general equilibrium are jeopardized in the presence of time-related money contracts.

The existence of contractual fixed money wage and material input prices permit entrepreneurs to control their cash outflows when they undertake long-period production activities. Moreover, given the known contractual commitments necessary to provide any given output flow, the banking system is more willing to finance these cash outflows. Therefore, continuous rising prices becomes a serious persistent problem only when forward contract prices are continuously rising by significant amounts. Given Keynes's precise definitional foundations for analyzing inflation, the principles for solving the inflation problem becomes clear.

Since spot prices of reproducible goods can exceed their flow-supply price only because of the unwillingness of buyers to wait for forward delivery, spot price inflation is always, ceteris paribus, a temporary problem that can be handled via a *buffer stock policy*. Forward price inflation

(or "incomes inflation") requires some form of *incomes policy*—that is, some policy that constrains the owners of factors of production from demanding increases in the money income that exceeds productivity increase per factor unit.

In 1958, Sidney Weintraub, in his book *An Approach to the Theory of Income Distribution,* set out the three primary causes of forward market price (or incomes) inflation. They are:

1. Diminishing returns inflation where the marginal productivity of workers decrease as output flow increases even as the money cost per unit of factor input is unchanged. Diminishing returns inflation is probably small in most industrialized nations. Nevertheless, it is a real cost of expansion toward full employment where no one should have a vested interest in obtaining low prices just because output is low and employment is low.
2. Monopoly or profits inflation occurs when entrepreneurs attempted to raise prices relative to production costs thereby increasing profit margin per unit of output.
3. Factor price inflation occurs when owners of the factor inputs of production demand higher monetary income for each unit of input relative to any improvement in productivity per unit of input, such as wage-cost inflation.

A fourth type of inflation—*import cost inflation*—was ignored by Weintraub and other Post Keynesians in the 1950s and early 1960s when imports were a small percentage of the gross domestic product (GDP) of the United States. Import price inflation analysis was developed by Post Keynesians in the 1970s and 1980s (e.g., Davidson, 1982; Weintraub, 1977).

In a stroke of genius, Weintraub was able to simplify the analysis of the forward market price inflation problem for domestic production via a simple bit of algebra:

$$Z = PQ = k\ wN, \tag{1}$$

where Z is domestic business gross product in money terms, P is the price level, Q is the physical business output, w is the money wage rate, N is the level of employment, and k is a multiple of the wage bill (wN) and is equal to the gross profit margin per unit of business gross product. By dividing both sides of Equation (1) by Q, Weintraub obtained:

$$P = k\left(w / A\right), \tag{2}$$

where *A* is the average physical product of labor. Thus, Weintraub concluded, the price level of the domestic producible goods provided by the private sector of the economy was primarily a function of the profit margin markup and the money wage relative to the productivity of labor. To control incomes inflation therefore required a policy to constrain changes in the gross profit margin and the money wage relative to labor productivity.

Weintraub also knew that it was not sufficient for economists to be good—that is, to identify the principle involved in any policy problem. To achieve a successful policy, economists also had to be clever—that is, to develop a policy that most members of society will voluntarily comply with and whose administrative costs were not prohibitive.

Weintraub noted as an empirical fact the value of *k*, the gross profit margin, showed no systematic movement in the United States since World War II. (Later, other students of Weintraub showed similar stability for *k* in other nations.) Hence, the problem of changes in the profit margin appeared to be relatively unimportant. At least until the 1980s, the post–World War II inflation problem became one of limiting money wage increases to increases in labor productivity.

Why, at least until the 1980s, were wage rates a major factor in ongoing incomes inflation? To understand that, we must recognize the change in the nature of the industrial society that came after World War II. As John Kenneth Galbraith noted: "The market with its maturing of industrial society and its associated political institutions . . . loses radically its authority as a regulatory force . . . [and] partly it is an expression of our democratic ethos" (1978, pp. 8–9).

After the devastating experience most households endured during the Great Depression of the 1930s, the emerging ethos of the common man in democratic nations held that people should have more control of their economic destiny. The Great Depression had taught that individuals could not have control of their economic lives if they leave the determination of their income completely to the tyranny of the free market. Consequently, after World War II, in societies with any democratic tendencies, people not only demanded economic security from their economic system but they also demanded to play a controlling role in determining their economic life. This required power to control one's income. The result was an institutional power struggle for higher incomes between unions, political coalitions, economic cartels, and monopolistic industries. When these power struggles lead to demands for higher incomes at any level of production, the result is an incomes inflation.

As long as the government guarantees that it will pursue a full employment policy, then each self-interested worker, union, and business en-

trepreneur has little fear that their demand for higher prices and money income will result in lost sales and unemployment. Full employment policies without some deliberately announced incomes policy assures that there would no longer exist what Marx called the "industrial reserve army" of the unemployed. In a laissez-faire market environment, however, this industrial reserve army of the unemployed is a major force that can constrain organized workers' demand for higher money wages. As long as the government accepts the responsibility for creating sufficient aggregate effective demand to maintain the economy close to full employment, there was no market incentive to stop this recurring struggle over the distribution of income. (Since the 1990s, with globalized free trade, the almost unlimited supply of unskilled and semiskilled workers in countries such as China and India willing to work at much lower wages than those that prevail in the West have acted similar to a Marxist "industrialized army of the unemployed" in limiting Western workers' ability to even maintain existing money wages.)

For those classical economists who believe in the beneficence of the "invisible hand" of free markets, there is only one way to combat any incomes inflation that may occur. In a free society where people are motivated solely by self-interest, workers and entrepreneurs are free to demand any price for their services, even if such demands are inflationary. As the former Prime Minister of England, Margaret Thatcher, was often quoted as saying, "[o]ne of the rights of a free society is the right to price oneself out of the market."

To ensure that inflationary income demands of workers and entrepreneurs prices oneself out of the market requires that the central bank ensures that the banking system will not finance these inflationary income demands. The central bank must ensure that there will be a lack of sufficient effective demand to effectively prevent any significant inflationary wage (rent and profit) demands.

If an independent central bank adamantly refuses to increase the money supply sufficiently to finance inflationary income demands of owners of domestic factors of production, then the resultant slack demand in the marketplace will discipline *all* workers and firms with the fear of loss of sales and income. The hope is that this fear will keep wage and price increases in check. To make this fear credible, a central bank doing inflationary targeting must institute a restrictive monetary policy so that all firms and workers feel threatened. Nothing closely approaching full employment prosperity can be tolerated as long as we rely on the free market's incomes policy of threatening unemployment and failure for domestic workers and entrepreneurs. Thus, those who advocate "infla-

tion targeting" monetary policy by the central bank are implicitly indorsing an incomes policy based on "fear" of loss of jobs and sales revenues for firms that produce goods and services domestically. Fear, it is believed, will keep owners of the domestic factors of production in their place. The amount of slack demand necessary to enforce this *incomes policy of fear* will depend on what is the domestic natural rate of unemployment and, in a globalized economy, the existence of large population nations whose workers willingly accept wages much below that of the industrialized developed nations.

Accordingly, proponents of this inflation targeting incomes policy of fear are implicitly suggesting that the natural unemployment rate will be smaller if governments "liberalize" labor markets by reducing, if not completely eliminating, long-term unemployment benefits or other money income supports, including minimum wages, employer contributions to pension funds, health insurance for their employees, and so on.

A permanent social safety net is seen as mollycoddling casualties in the war against inflation so that others may think there is little to fear if they join the ranks of the unemployed. A ubiquitous and overwhelming fear instilled in all members of society is a necessary condition for the barbarous inflation targeting program to work. The result is inevitably that the civil society is the first casualty.

With the integration of populous nations such as China, India, and so on, into the global economy of the twenty-first century, as we have already suggested, another "industrial reserve army" has been introduced into the economies of many Organization for Economic Cooperation and Development (OECD) nations. Given the almost unlimited supply of idle and unemployed workers in these populous nations who are willing to accept jobs at wages much below those prevailing in the major OECD nations and the growing phenomena of outsourcing of manufacturing jobs and services incomes (where transportation and communication costs are relatively small), the labor forces of major industrial nations have been significantly constrained in their income demands in the past two decades. As a result, incomes inflation has been limited to those domestic service occupations and industries and manufacturing industries (e.g., national defense) where outsourcing is not a possible alternative. The result has been a growing inequality of income between the unskilled and semiskilled workers in Western industrial nations and the domestic managers and owners of multinational corporations who can engage in outsourcing of their lower-end jobs and demanding higher profit margins on the segment of their integrated chain that provide goods and services domestically.

What anti-inflation incomes policy can one develop from Keynes's revolutionary analytic approach? In 1970, Weintraub developed a "clever" anti-inflation policy, which he called TIP, or a tax-based incomes policy. TIP required the use of the corporate income tax structure to penalize the largest domestic firms in the economy if they agreed to wage rate increases in excess of some national productivity improvement standard.

There were two conditions that Weintraub believed were necessary if TIP was to be an effective policy that did not rely on "fear" of loss of income to constrain incomes inflation. These conditions are:

1. TIP was to be a permanent policy institution, and
2. TIP must be a penalty system, not a reward (subsidy) tax system.

Once instituted, TIP could never be removed for, otherwise, it would become an impotent policy as it reached its termination date. (Weintraub indicated that the magnitude of the tax penalties could be altered as conditions warranted, but there must always be the existence of a threat of penalties to ensure compliance.) Second, a reward tip—that is, one that reduced people's taxes if they adhered to the national wage standard—would be administratively unworkable, as everyone would claim the reward and it would be up to the government to prove which claimants were not entitled to the reduction in taxes. Weintraub suggested that TIP was similar to the way government enforces speed limits on the nation's highways. If one exceeds the speed limit—which is always in place—one pays a speeding fine. Governments never pay good drivers for not exceeding the speed limit.

Unfortunately, the United States and many other nations have never seriously attempted to develop a permanent penalty-oriented TIP. Instead, inflation has been fought via the typical monetarist "incomes policy of fear"—that is, restricting the growth of the money supply so as to create slack markets via recession. Those who raise their wages above productivity growth will then find themselves priced out of the marketplace.

The real cost of such a monetarist incomes policy to many industrialized nations in the recent past has been significant. For countries such as Germany and France, double-digit unemployment rates—previously unseen since the Great Depression—has become the norm.

Weintraub, the perpetual believer in the use of human intelligence rather than brute (market) forces to encourage socially compatible civilized behavior, believed that, ultimately, some form of TIP would be seen as a

more humane policy to control inflation without the necessary depressing side effects of traditional monetarist policy.

In my own view, words and concepts are important weapons in the fight against inflation. I believe one of the most important functions of government in this anti-inflationary struggle is to educate the public of the major industrialized nations that the income distribution struggle is (in the aggregate) a no-win, actual lose, game, although there may be relative winners for periods of time. In the absence of a sensible policy about the distribution of income nationally and internationally, the result is not a zero-sum game, but a real loss in aggregate income nationally and internationally as governments pursue restrictive monetary or fiscal policies.

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