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Dangerous Metaphor: The Fiction of the Labor Market

Unemployment, Inflation, and the Job Structure

James K. Galbraith

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Summary

Much economic policy is based on the theory that a market for labor exists and that it is this labor market that determines employment and wage levels. Wages decline when there is an oversupply of labor and rise when there is an undersupply. Focusing on the supply of and demand for labor, many economists and policymakers believe that low-skill workers are poorly paid because there is an oversupply of (or lack of demand for) such workers. They conclude, accordingly, that the key to lifting low wages is to provide education and training programs so that workers can upgrade their skills and join the ranks of high-skill workers, who are in greater demand. Many economists and policymakers are reluctant to interfere with the workings of the market, although many feel that in addition to pursuing education policies, government could also invest in infrastructure and technology. They believe such investments improve the long-term performance of the economy, which will generate higher average living standards that will "trickle down" to low-paid workers.

James K. Galbraith challenges this theory. He argues that there is no such thing as a market for labor; rather, what exists is a job structure—a set of status and pay relationships in the economy within and between firms and within and across industries. The elements of the job structure are far more complex than simple supply and demand for labor hours. Wage levels are determined by a process of relevant comparisons involving such factors as workers' skills, job history, and reputation; job characteristics; and occupation and industry. Neither workers nor jobs are close substitutes for one another, as the labor market theory argues. Therefore, one cannot make systematic statements about the effects of changes in supply and demand.

If one accepts that what exists in the economy is a job structure rather than a labor market, then one can see that policies that focus solely on labor supply and demand will not be effective. Because there is no longer any reason to associate any particular value of unemployment with rising wages and hence with rising prices and inflation, theories regarding the natural rate of unemployment and other barriers to full employment disappear. The notions that full employment might lead to inflation or that unemployment is a means of controlling inflation do not hold under the job structure theory.

Galbraith points out that once we discard the belief that wage levels are determined by the market, we are left facing the fact that questions regarding what people should be paid are political ones. What should be the distribution of income? How much should secretaries be paid relative to their bosses? How much should a chief executive officer be paid? These are not market questions. We cannot deal with these questions through economic policies based on labor market theories. We must confront them head on and accept them for what they are—politically difficult questions that many would prefer not to address.

The same is true of questions regarding education, infrastructure, and environmental protection. Advocates have attempted to use economics as a source of support for investment in these areas, asserting that such expenditures will lead to improved economic performance and competitiveness. Galbraith argues that while investment in education, infrastructure, and the environment is important, it is not important for economic reasons. Such investment is necessary and valuable for social and political reasons, for its contribution to society's qualify of life, but he finds little evidence that it will provide dramatic economic benefits. If our goal is to achieve a more equal society, to raise living standards, then we must focus directly on full employment and distributive issues involved in income differentials and adjustment, investment, interest rates, debt structure, and trade. We cannot be distracted by side issues and theories of a nonexistent market process.

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Preface

During the last decades many economists and policymakers have approached employment in terms of its assumed relationship to inflation. If one assumes that wages and employment are determined solely by the operation of supply and demand curves for labor, then the level of employment is seen as creating upward or downward pressure on wages and, therefore, on prices and inflation. Belief in the labor market theory leads to the fear that low unemployment can result in inflation and the notion that unemployment can be used as a means to control inflation.

James K. Galbraith asserts that labor is not a commodity that is governed by market rules and that policies based on this assumption are misdirected and ineffective. Policies that promote unemployment will do little more than hurt working Americans who are already experiencing growing wage inequality despite the recent period of economic expansion.

Solutions to the wage problem based on the theoretical construct of the labor market focus on reducing the supply of or increasing the demand for low-skill workers. Supply is reduced by providing education and training to transform workers into high-skill laborers. Demand is increased by boosting economic performance in the hope that growth will lead to the creation of more well-paid jobs. Galbraith concludes that such supply and demand policies are not and cannot be effective in solving America's problem of income inequality because wages are not set by variations in supply and demand, but by a complex set of social relations he calls the job structure. If he is right, then policies aimed at equalizing the distribution of income must be entirely reassessed.

Galbraith's structural theory has implications for monetary policy as well. His conclusion about the nature of the NAIRU implies that it can no longer be used as a benchmark by the Federal Reserve. It appears that the Fed has, indeed, accepted this, or it likely would have moved to raise interest rates at some point during the last several months of steady or declining unemployment. Despite Chairman Greenspan's recent disavowal of the idea of a fundamental shift in the economy's structure, the Fed's inaction (as of October 1997) belies that statement.

Galbraith's structural theory challenges economists and policymakers to look beyond constraints on policy that have resulted from the market approach. The search for solutions to the wage problem must be extended to encompass questions of what wage differentials should be and how income and wealth from productivity gains should be distributed. Viewed from the structural perspective larger problems of growth, employment, and equality can no longer be resolved by market means; they must be resolved by political means in which difficult ethical issues inevitably arise.

Dimitri B. Papadimitriou
Executive Director
October 1997

Unemployment, Inflation, and the Job Structure

An intellectual dichotomy underlies the way most economists are taught to think: Macro is macro, and structure is microeconomics. This conventional view leads to the common ground on policy that has come to permeate economics from the liberal center to the far right. According to this common ground, one set of instruments defines macroeconomic parameters, while another assures that "markets work," for example, by providing training and infrastructure, by removing distortions in pecuniary incentives, and by removing barriers to the efficient adjustment of prices.

The deep constraints on the economic policies of the Clinton administration illustrate the consequences of these ideas. Modern market-oriented liberals can favor labor training, education, adjustment assistance, and other programs that help workers move from one job to the next. They can favor a wider distribution of education and skills because equalizing initial chances in the labor market will supposedly work to equalize final outcomes. They can support public investments in infrastructure because these are said to contribute to the international competitiveness of the economy. On the same ground, they can support research and development assistance to advanced enterprises and efforts to open foreign markets to American products.

These are supply-side measures. Their purpose is to improve the long-term performance of the economy. The thought is that a more productive economy will generate higher average living standards. The further thought, that these higher standards will "trickle down" to low-paid production and service workers, is left as an assumption. It is an assumption that has so far proved unfounded, for such supply-side policies

have so far achieved nothing to reduce economic inequality; either the dose is too weak or the remedy itself is ineffective. Yet liberals have no other recourse as long as they remain wedded to the theoretical construct of the "labor market" and are therefore obliged to leave that market's choices about employment and pay fundamentally beyond the direct reach of public action.

Nor can macroeconomic policy come to the rescue, for it is a peculiar feature of modern macroeconomics that in the conservative limit, it disappears. That is, if all of the canons of the new classical economics hold—monetarism, rational expectations, and market clearing—macroeconomics ceases to exist except as a blown-up version of micro. Aggregate supply and demand models behave exactly as micro supply and demand models, yielding an aggregate labor market that clears at the natural rate of unemployment and without disturbing the income distribution decided by efficient micro markets. The message to the policymaker is "Hands off."

To be sure, even conservative policymakers do not completely abandon macro responsibility and historical experience. Partly this is contact with reality—one might say gut instinct—and partly it is the influence of ideas, such as those concerning rigidities, externalities, and public goods, that compromise the purist position, violating one assumption or another in a quest for a context within which limited macroeconomic action becomes possible. So an asymmetric debate over macroeconomic policy lives on in practice—asymmetric because those advocating intervention must acknowledge that their grounds are *ad hoc*, impure, *theoretically* problematic, a matter of coarse pragmatism at best. Acceptance of the broader conservative theoretical structure reduces macroeconomic policy to a fringe role, that of large-scale intervention only in deep and lasting recessions. In all other circumstances, the macro authorities are warned off and the active pursuit of full employment disappears from the list of respectable policy goals.

My dissent does not labor under these policy constraints, either macro or micro, for I have come to reject the macro-structure dichotomy on theoretical grounds. To acknowledge the full extent of my heresy, I have come to believe that the core analytical categories of *microeconomics*—supply, demand, price, and quantity in flow markets for current inputs and outputs—have little bearing on the most important policy questions

and that many policy measures directed at improving the performance of such markets are misconceived. The markets that truly matter are either asset markets, for which the rules are quite different, or, as in the case of the "labor market," not markets at all but a set of social relations, a social matrix, that we may call the *job structure*. And the policies that truly matter, both for aggregate performance and for distribution, are mainly *macroeconomic*.

The "Labor Market" and the Theory of the Natural Rate

The concept of the labor market completely colors thought and argument on the relationship between employment, unemployment, wages, and inflation. But what is the labor market? What does it mean in principle to say that the labor market is tight or slack or in equilibrium? These notions rest on the familiar underpinnings of supply and demand, which enable us to make fast and intuitive connections between quantities and the movement of prices. For instance, a slack labor market is one in which labor is in excess supply (there is unemployment), and, therefore, there is downward pressure on the real value or purchasing power of the money wage. A tight labor market is one in which labor is in excess demand, and, therefore, real wages are rising. The problem is that these connections, fast and intuitive though they are, are theoretically unfounded and empirically wrong.

Now, in general terms, a market is defined by the plausible presence of demand and supply curves, which is to say, of schedules of price and quantity, of bids and offers, on both sides of the transaction. It is this, and only this, that makes possible systematic statements about the effects of change (such as "a decrease in price will raise the quantity demanded"). Such statements are plausible in the case of, for example, apples (even though there are many varieties and grades of apples) and fish (though an even wider variety exists) because in the aggregate different apples, or different fish, are reasonably close substitutes for one another. Therefore, we can plausibly imagine prices adjusting in response to shortages and surpluses or changes of consumer mood.

The labor market—especially when considered as an aggregative entity covering an entire region or country—has *never* been a market in this

sense. Each individual worker brings a complex package of characteristics, skills, job history, and reputation to each possible job match. In comparison with the scope of differences between jobs, the range of substitutability for each person is extraordinarily narrow. While people do change jobs, after an early age most never change from one line of work to another. Jobs themselves are, perhaps, not so complex as the people who hold them, but they, too, are highly differentiated. Neither individuals nor jobs are close substitutes for one another.

The idea that people can readily be switched from one line of work to another would appear to stem from the idea that *labor time* is a commodity with a coherent meaning, and this notion is an extension of nineteenth-century abstractions about labor that have lost their slight purchase in real world conditions over the course of the present century. The manual worker with general skills hired out by the day for odd jobs at a negotiable wage is a fringe case. *Everybody else* is linked to a social network that dictates within broad bands terms of employment specific to his or her skills and background. The small actions that lend intuitive plausibility at the micro level to the concept of a market for fish ("Atlantic Salmon $5.99! Special Today!") are never observed in the so-called market for labor. Wages are not set in response to the short-term variations of supply and demand, but rather by a complex process of relevant comparisons, within and across occupations, industries, and the characteristics and qualifications of the worker.

Most economists seem to have forgotten that John Maynard Keynes quite powerfully demolished the "supply curve for labor" in the opening pages of *The General Theory of Employment, Interest, and Money.* Keynes showed that there was no reason to expect that, say, an excess of unemployment would drive down real wages. He showed that even with high unemployment, the remaining workers would still rationally resist reduction of their money wages; moreover, even if their resistance failed, the subsequent fall of money wages would bring down prices, leaving real wages unaffected. Thus, labor markets do not respond like fish markets to excess supply. The "second postulate" of the classical doctrine, the supply curve for labor, failed as a logical construct, and Keynes threw it away, drawing an instructive analogy to the overthrow of Euclid's axiom of parallels. But, of course, *the nonexistence of a viable supply curve implies that the market for labor itself is not a market in the meaningful sense of that*

term. Without a supply curve, there is no market, and the "equilibrium" of wages and employment cannot be determined in it. One is forced to look outside the classical confines of the labor market to find the determination of employment and of wages. In other words, one needs once again to build a macroeconomic, and specifically a Keynesian, theory.

The notion of a labor market is essential to coherence of the idea of a "natural rate of unemployment," around which so much macroeconomic policy discussion unhappily turns. What is the natural rate of unemployment?[1] It is the idea that there exists an organic equilibrium of the labor market, a single level of unemployment that is consistent with any constant, unchanging rate of inflation. The natural rate is what its name implies: the rate given by the free operation of markets, blessed by the Invisible Hand, graced as equilibrium in the Walrasian sense that once achieved neither excess supply of nor demand for labor may disturb it.

Thus we have had, in effect, a Holy Grail for policy guidance. Above the natural rate (or below "potential output") disinflationary pressures are predicted.[2] Below the natural rate (or above potential output) inflationary pressures will be found. In the long run growth of employment at the natural rate of unemployment governs the sustainable pace of noninflationary employment growth. Until quite recently all of this has been amazingly noncontroversial. The only issue has been whether, on rare occasion, the economy might be so far above the natural rate that a little boost, in the form of countercyclical stimulus, can be justified to speed the return to the natural rate equilibrium.

For the naturalists, the answer is naturally no: the economy will return to the natural rate on its own and at the optimal speed. For strict natural raters, doing nothing is always and everywhere the right prescription. For the slightly more liberal breed we may call the NAIRUvians, the persistence of unemployment above the natural rate is a legitimate possibility. It may reflect a failure of relevant markets to clear with satisfactory speed, a disorder that NAIRUvians acknowledge to be possible. That being so, there may be no harm in policy measures to speed the return to the NAIRU as long as a "soft landing" at the NAIRU is carefully engineered. For NAIRUvians, the issue of whether the economy is or is not near the NAIRU thus carries a policy significance that it does not for natural raters. However, that policy significance is so slight that over

the past 30 years of erratic economic performance and unemployment occasionally as high as 10 percent, the community of economists has never coalesced into a strong voice in favor of expansionary policy. In better times, such as the present, the debate is entirely centered on the question of when to start restricting economic expansion and slowing the reduction of unemployment. There is absolutely no room, anywhere in this spectrum, for the advocate of sustained full employment.

If you happen to think that the performance of the American economy is on the whole poor—too much poverty or unemployment or inequality, for example—and that something ought to be done about it, what place is there for you under the macroeconomists' tent? The natural rate/NAIRU answer is no place at all. Policies to attack social problems belong in the micro sphere: education and training, infrastructure, welfare and welfare reform. The frustration that this produces, as when training is provided for jobs that do not exist, goes unaddressed.

And if the concept of an aggregate labor market could be wiped at a stroke from the professional consciousness, what would happen? Plainly, there would then be no reason to associate any particular value of the unemployment rate with rising wages and hence with rising prices and inflation. The concepts of the natural rate and the NAIRU, already embattled because of the failure of empirical predictions based on them, would certainly collapse. Economists would be obliged to find ways of evaluating the evidence governing both inflation and unemployment without granting privileged status to the idea that the two are closely linked. The policy notion that unemployment is a sensible means of controlling inflation would lose most of its power.

I believe this would be an enormous intellectual improvement, for it would divert research from the ephemeral pursuit of abstract and elusive scalars (Where is the natural rate, exactly? 6.0 percent? 5.5? 5.0?) into the analysis of a much more complex realm of data, such as already characterizes the more productive veins of research in labor and financial economics. It would also expand the scope of acceptable policy discussion. It would turn many thousands of unemployed, now abandoned to fate, into reasonable candidates for reemployment on reasonable public or public-private projects—physical, intellectual, and cultural—at reasonable terms. But for this to happen, it is evidently not enough just

to raise doubts about the labor market theory of aggregate wages. For if wages are not determined in the labor market but in context- and institution-specific patterns, what exactly are these patterns and how are they to be made into legitimate objects of social inquiry?

The Job Structure

The Danish prince missing from the *Hamlet* of much modern economic thinking is the job structure. Mesmerized perhaps by the magic words "adjustment," "efficiency," and "equilibrium," economists actually tell themselves that a theory cannot be good unless it purges itself of any rigidities, institutions, and other context-specific or *ad hoc* considerations. Thus criteria of esthetic conformism come to rule. It is a peculiarly biased mind-set, and one that bears little resemblance to scientific practice as one normally understands it. Surely, if social structures exist in the real world, they deserve to be analyzed, rather than treated with disdain.

What is the job structure? It is a historically, socially, and politically specific set of status and pay relationships in the economy, within and between firms, within and across industries. I will assert here that a job structure always exists, and has to exist, in every society. Otherwise, relative pay would be wholly underdetermined—market forces being insufficient to do the job of setting wage rates and job characteristics—and chaos would prevail. I also assert that elements of the job structure are familiar to almost every worker, for one need only analyze the components of one's own pay—occupation, industry, seniority, performance—to see a part of it. The analytical challenge is to come up with a coherent description of the whole thing—a task that it is not so straightforward.

Job structures may be more or less flexible at different moments of time. They are obviously not immune to pressures from markets or the fluctuations of the business cycle. But they have the effect of distributing those pressures across themselves (like shock waves hitting a building). Occasionally a structure may collapse under pressure, but for the most part the effect of having structure is to slow down changes and to distribute them in ways that may not appear predictable to those focused intently on market characteristics. Yet because structures are well understood by the people within them, their existence lends coherence and

legitimacy to the economic world. Indeed, a stable and accepted structure of wages is one thing that distinguishes a politically stable society from an unstable and disordered one.

A structural approach to relative wage determination starts from the proposition that patterns of demand and supply do not solve the labor-pricing problem. Demand for labor, undergraduates are told, is governed by the marginal productivity of labor, by the inverse relationship between the amount of employment offered and the value of the output produced in the last hour worked. Wages differ within the margin because jobs differ: hard and dangerous work must be compensated, human capital accumulation rewarded.

There are at least two fatal difficulties with this. The first is that the mechanism for determining marginal productivity in a differentiated job structure no more exists than does any meaningful market for marginal workers. Firms do not calculate marginal value, and natural selection does not work as many economists casually suppose. There is even little reason in the empirical world to accept that the marginal value of output actually does fall as employment increases.

Second, imperfect markets are ubiquitous, leading to the well-recognized phenomenon of labor rent, or payments to artificial scarcities induced along industrial lines by law or technology or labor unions or winner-take-all phenomena. The notion of labor rents is a backdoor way into an analysis of the job structure. But it quickly takes over the whole show. For labor market theory to subsist alongside labor rent theory, it remains essential that the *nonrent* element of labor compensation be a significant fraction of the total wage. If a very large part of wages are in fact compensation for the rental value of specific human capital (cf. Blanchflower, Oswald, and Sanfey 1996), then the aggregative labor market simply dissolves. Segmentation rules and the patterns of distribution of labor rent, which are in no way uniquely determined, become the prime object of analysis. If market forces *per se* do not dictate exact outcomes, they can at best act as influences within a social matrix governed substantially by other things.

Once the possibility of multiple solutions to the labor-pricing problem is admitted, then the choice between possible solutions becomes, very

quickly, a matter of historical developments and social relations. In other work, Paulo Calmon and I (Galbraith and Calmon 1994, 1996) have outlined a set of procedures for dissecting the social structure and for identifying its largest and most prominent groupings. Our groupings are preeminently industrial and policy related. Our procedures are quite general and can be used with other types of data. In a forthcoming book (Galbraith 1998) I will extend and refine this analysis using additional techniques and a more comprehensive set of industrial and service wage and performance data.

The effect of this work is to focus attention on *power groupings* (and membership therein) and far, far away from the economist's typical preoccupation with rates of return to individual acquisition of skill. It is to identify a matrix of quasi-political relationships, a job structure, a set of patterns of monopolism and market power, whose elements change only slowly over time. And it is to illustrate the overwhelming importance of macroeconomic policies and events for the differential performance of groups situated differently—supported differently, protected differently—in the world economy.

Calmon and I identified six major industrial groups in the American job structure: an advanced technology group with some associated members whose position was protected by trade policy; a heavy industry group, whose fate varied with the auto contract; a light industry group; a textile group; a garment-making group, in deep competitive trouble; and a large residual group of no distinguishing characteristics. We show, for example, the rise and decline of labor power in the heavy industry sectors (autos, construction equipment); the steady rise and immunity of relative wages in advanced technology and protected industries (aerospace, chemicals, agriculture); the collapsing position of more weakly organized workers in sectors exposed to international trade (light industry, apparel). We found a number of important special cases—steel, computers—whose wage paths were subject to special influences. Job structures are complex.[3]

Our work has relevance to the long-running debate over the effects of technology and trade on the inequality of relative wages. There now exist many studies that attempt to explain the dramatic rise in the inequality of before-tax wage and salary incomes over the last two

decades. A common conclusion of many—notably Juhn, Murphy, and Pierce (1993) and Bound and Johnson (1992), endorsed in derivative works by Krugman (1994) and the Council of Economic Advisers (1994, 1995, 1996, 1997)—is that changes in technology have changed the distribution of real returns, raising them for those with advanced skills. In particular, the vast spread of computers into the culture has captured the attention and imagination of these scholars and has created in the wider community the suspicion that a new apartheid has come into existence, between those who are electronically literate and those who are not.[4]

Our work initially caused us to weigh in on the side of those who argued for a much larger role for trade and a smaller one for technology in rising inequality, a viewpoint notably advanced by Wood (1994). We have since come to realize that our analysis does not imply a causal link between rising trade and rising inequality. Rather, it raises the question whether the influences of trade and technology can really be separated, as the main line of the debate would have it, with technology working through "skill bias" on the demand side of the labor market and trade through expansion in the effective supply of unskilled labor and factor price equalization.

What we suggest instead is that technology and trade affect wages as part of a realignment of power, whose fundamental cause is a weakening of workers in consumer goods industries relative to workers in industries supplying capital goods. The fundamental cause of that, in turn, is conditions of slow growth, high unemployment, and stagnating demand in consumer industries over two or three decades, in the context of increasingly strong market positions for enterprises based on advanced technology, notably in such industries as aerospace, communications, and pharmaceuticals and also the special case of computers. The *relative* degree of technology-based monopoly power of the advanced sectors, in other words, depends inversely on the prosperity of other sectors that do not enjoy a similar degree of technical advantage. International trade, in this interpretation, is the extension of this (predominantly interindustrial) rivalry across a frontier, with the main impact on import-competing sectors coming through employment effects on the one hand (as Wood indeed argues) and through threat mechanisms on the other.

This view of the job structure as primarily governed by the effects of large forces on relative power extends into the services sector. The Galbraith-Calmon analysis showed that there appear to be linkages between some service wages and what is paid in associated manufacturing sectors. The path of wages in shoe stores resembles that in leather manufacture more than it resembles that in grocery stores, which in turn resembles the path of wages in the breweries and bakeries. This sort of finding increases confidence in the importance of a job structure; a conventional labor market theory would not predict it.

Supply-Side Liberalism Reconsidered

Political liberals can happily agree that expenditures on education, training, research, development, and infrastructure are generally good things in social terms. Unfortunately for liberals, however—and here I choose my words with precision—economics is not the helpful source of support for these policies that many liberals, and liberal economists, profoundly hope it might be. There is little direct evidence that increased expenditures on education, infrastructure, and research help the measured performance of the economy in any definite way. The belief that they will do so is essentially an act of blind faith, an assertion mediated by the theology of the market. Once one moves away from belief in labor supply curves, the effects of supply-side policies on economic performance must be reexamined.

The educational system of the United States is unquestionably deficient in important respects. It includes large public school systems in which resources are starved and education is said not to occur. These failings are a social and political tragedy and a cultural crime. They have much to do with the persistence of race-based differences in the earnings and opportunity structure.

But do they matter, much, for the *average* level of economic performance? Are American schools a drag on productivity? *That* question turns on whether there is a shortage of *skilled* labor in the present-day United States. There is no such shortage! To the contrary, our economy is full of highly educated and skilled people. What it is short of is *jobs* for

those people, as every college counselor and every coordinator of a training program knows.

This cannot be surprising. We have not for decades created large numbers of truly good jobs. And in a country where business interests have such a huge influence over education policy as they do here, it would be bizarre if high schools, colleges, and universities were undersupplying business markets. Much as one might like to believe that improving our educational system will improve, say, the average rate of productivity growth, there is little coherent reason to believe that this is so.[5]

Government R&D and export assistance helps American companies penetrate foreign markets, increase market share, improve technological competitiveness—and pay higher wages. But here there is another problem. Who benefits from these policies? The number of workers who work directly in export-oriented, high-technology manufacturing sectors is small, not over 6 million by a generous count. They are the primary beneficiaries and they, at the top of the manufacturing wage ladder, are already comparatively well paid.

Workers and consumers outside the favored sectors benefit at most indirectly, for example, from the multiplier effects of increased export earnings and from the spread of new technologies into products that consumers use. But this process also has losers—the workers whose skills become obsolete and whose jobs disappear. Those who argue for technology policies often forget about this damage. And with no full employment policy, retraining for these workers is at best a distraction.

There is surely a role in general terms for science and technology policy. Ultimately and all in all, new technologies lead to a better life. But they do not and cannot bring full employment nor do they bring about a fairer and more just social order. Quite the contrary, they tend to strengthen the strongest and richest elements of the industrial structure.

Finally, public works expenditure is the historical cornerstone of liberal interventionism. Public works are the fastest, most direct way to put the unemployed to work. They have direct and multiplier effects on total employment. They have the side benefit that the works themselves remain useful for many decades after they are completed. They

also represent in political memory the triumph of liberalism in the first New Deal.

But the liberal supply-siders make an entirely different claim for public works spending. Renaming it "infrastructure" (as I, too, have done on many occasions), they argue that it contributes in definite ways to the productivity of the private business economy. The jobs created directly, in doing the work, are immaterial to this argument. What matters is how the finished work contributes indirectly to cost reduction and output in the private sector.

The evidence for such effects rests almost entirely on aggregative statistical relationships, essentially on the bare fact that measured productivity growth declined during the years that saw falling gross public investment. Almost no evidence rests on detailed analysis of the contribution of particular projects to business efficiency (a high-tech boom in Appalachia following the Great Society's road programs there, for instance). That kind of evidence would be much more persuasive, but it doesn't exist. And, on reflection, it isn't surprising that it doesn't. Export-oriented American manufacturing enterprise is not seriously hamstrung by infrastructure problems. Roads, railroads, electricity, and water service are adequate to its needs. Boeing is not short of runways from which to launch its planes, and Silicon Valley is not suffering brownouts. Telephones work well in this country. Pollution costs—a serious matter—do not fall on private business producers, but mainly on their neighbors. Given a choice, many businesses would prefer to live with pollution than to have the government pay for clean-up projects; still less are they interested in paying themselves.

The unpleasant conclusion is that the liberal mainstream has been, to a degree, fooling itself. Education is important for social and political reasons and not for the reasons of competitiveness and productivity that are usually cited. Business doesn't need a uniform system of top-quality schools; business would not support such a system, and it is wishful to argue to business that it should. Public works and environmental spending are undoubtedly of enormous need and value. But to whom? To the American citizen, as an element in the standard of living. Roads, water, sewer, power, and communications systems are all durable public consumption goods. It is consumers and workers, not in the main

business shippers, who hit the potholes on the road to work. It is people who breathe the air, drink the water, and boat on the rivers and lakes. That this has little to do with international competitiveness and productivity growth is sad, but true.

The implication is that progressives must find a language in which to defend education, public works, and the environment for their inherent worth. They must find ways to organize the people in support of such programs for the vital direct benefits they bring (as indeed the environmental, consumer protection, and health and safety movements have traditionally done). Otherwise these causes will continue to lose the budget battles. And if citizens want full employment and a more equal society, the country needs something else. A high-growth, full-employment macroeconomics, for example, with associated measures to guard against destabilizing distributive conflicts and the resulting risks of inflation. Nothing less, nothing indirect, nothing based on the abstract mechanisms of a nonexistent market process, stands the slightest chance of working.

The Job Structure and Policy

What then is the meaning of the job structure for economic policy? As the job structure replaces the labor market, the received wisdom about natural rates and barriers to full employment fades away and with it the excuse for ducking the basic task of reaching and holding full employment. Subsidies to education, training, infrastructure, and scientific research must be designed and evaluated on their social and political merits; it becomes inadequate to justify them on a blanket supply-side assertion that they will help productivity or competitiveness and indefensible to assert that they alone can take care of the larger problems of growth, employment, and inequality.

Equally fundamentally, the issue of the appropriate differentials between groups returns to the political context. What should garment workers be paid relative to auto workers (or to lawyers)? What should secretaries be paid relative to their bosses? How much is it acceptable for a chief executive officer to earn, not just in terms of the health of the company he works for, but in terms of the health of society? More broadly, what

should be the distribution of incomes? How much range should there be between the bottom and the top? Between high risk–high return and low risk–low return? Between capital and labor? Between skill and no skill? If these are not market questions, they are and must be political questions that should be faced squarely despite the immensely difficult ethical questions that they inevitably raise.

Political issues have to be resolved by political means. Collective bargaining is one such means, income and wealth taxation is another, and minimum wages are a third. If these are not available, something else has to be devised. The Keynesian guidepost policies of the 1960s were an explicit effort to influence wage structures, and despite the oblivion into which they have since disappeared, it may be that they were a critical element in the huge comparative macroeconomic success of those years.

A structural approach to relative wages also has implications for anti-inflation policy, as long understood by the older generation of labor economists in the United States and by trade unions who established coordinated or solidaristic wage bargains in Japan and Europe in the postwar period. In Latin America in the 1980s, national approaches to the wage bargain have been a feature of every stabilization effort, notably the comparatively successful Cruzado and Real Plans in Brazil and the *Pacto de Solidaridad* in Mexico, which held things together until they were blown apart by the debt strategy that led to the PRI election victory in 1994 and the peso crisis immediately after. (For an analysis of rising inequality in Brazil, Mexico, and the United States, see Calmon, Conceicao, Galbraith, Garza Cantu, and Hibert 1997.)

A key question concerns *adjustment* of the wage structure. By what principle should real wages change? Surely, on average, at the rate of productivity growth, but should productivity gains be distributed to the individual, to the industry, or to the economy as a whole?

A structural perspective points to a general preference for structural stability, once (if!) a reasonable consensus about appropriate differentials has been reached. It is probably better to distribute productivity gains as broadly as possible, to make them largely social rather than industrial or individual. It is clearly better to avoid arbitrary perturbations to the

structure, such as arise when there are shocks to the general price level and some groups are better indexed than others. A discretionary, prospective indexation scheme could prove a useful tool in keeping the structure stable (see Galbraith 1989 for details).

What of employment? If structure stabilizes relative wages and neutralizes wage pressures percolating backward from growth sectors, there is no longer any inflationary labor market barrier to full employment. The reserve army of the unemployed loses its function, both because the wage structure remains stable without it and because the stabilization of the income structure removes the incentive for employers to maintain a climate of fear. The issue is therefore not how many jobs but who to employ and on what and for how many hours? The issue of who to train and for what function may have some importance, but much experience holds that people train themselves when they have an incentive (such as good conditions and decent pay) to stay on the job. At present the economy is short of jobs, not of skills.

Stabilization of private investment demand would remain a central macroeconomic issue related to employment. Countercyclical public investment is a possibility, using revolving funds as a finance facility for states and localities. The Swedes used to accomplish the trick with private business through tax policy, allowing tax-free deposits of profits into blocked accounts during booms, to be released for tax-free investment in slumps. This seems more reasonable than countercyclical profits taxes, which might do the stabilizing trick at investment levels too low to assure full employment. Progressive taxation of distributions and realized capital gains—a consumption tax aimed at the rich—seems worth exploring despite the obvious tendency of today's politics to go in the other direction. Given ratchet effects and leakages to imports, countercyclical consumption boosters, like general income tax cuts, seem the wrong way to go.

Alongside stabilization of investment demand one has to think of technological renewal. It makes sense to shut down progressively the back end of the capital stock, for environmental, safety, and competitive reasons. Properly designed regulation can help. At the same time, a flatter wage structure and bigger safety net would reduce the cost of job loss and the resistance from affected workers.

In a world of structural policy, interest rates should lose their present macroeconomic function. They should serve instead to arbitrate the distribution of income between debtors and creditors, capital and entrepreneurship. They should therefore be stable and low. Real rates of return on money should be zero. There is also no reason why long-term rates of interest in real terms should exceed the long-term real growth rate of the economy; indeed, they should lie below the growth rate, effecting a gradual redistribution of wealth away from the creditor and toward the debtor class and a long-term stabilization of household and company balance sheets. Speculation in fixed asset markets, an ancillary risk, should be heavily taxed.

If nominal wages rise in line with productivity, average prices will be stable outside of shocks to nonwage elements of cost. Commodity stockpiles could help curb the shocks. If debt creation is well regulated in the aggregate, there is no harm in relying on low nominal interest rates to keep the class structure in order. Difficulties in the debt structure can be weathered through a modest upward tilt in nominal prices and wages. As Congressman Henry B. Gonzalez has well said, zero inflation is for the graveyard.

Trade bears watching under structuralism, particularly as persistent deficits in the current account can undermine the political commitment to full employment. I am reluctant to impose barriers to trade, for technological reasons: too much structure, too little creative destruction, and one ends like the Soviet Union. On the other hand, industrial development strategies clearly matter. The more advanced industries are, the fewer production workers they need, the more service workers the economy can afford, and the higher the national standard of living relative to the world. Equally, the more public goods consumption relative to private goods, the fewer imports are needed for a given living standard and the fewer exports one is obliged to do. A high-technology, high-export development path requires attention to stabilizing aggregate demand in overseas markets and particularly in the developing world, where there has been catastrophic indifference to this problem in the past 25 years.

All of this is not to denigrate the traditional liberal emphasis on education, infrastructure, and the environment; it is only to question whether

these goals can be usefully pursued by dressing them up as a substitute for economic policy. Indeed, unless accompanied by a successful economic policy that produces full employment and strong growth in government revenues, it seems certain that these causes will continue to lose the budget battles, as well as fail to achieve the larger economic results that their advocates sometimes promise.

It may seem unrealistic to propose these polices now, but the point is that there is no good in thinking half-thoughts or agreeing to half-measures from the outset. The liberal microeconomic supply-side can perhaps make itself useful by getting a little money into education, training, infrastructure. But the point is to raise living standards, increase security and leisure, provide jobs that are worth having. And one cannot do that while the grand viziers of macroeconomic policy are left free to disrupt output and employment and to redistribute income from working people to the rich.

Notes

1. In economics, terminology is a marker. If you say natural rate of unemployment with a straight face, you have as good as declared yourself a fellow traveler of what used to be called the Chicago school. If, on the other hand, you persist in using the ugly acronym NAIRU—nonaccelerating inflation rate of unemployment—then you are a retrograde American Keynesian, open to the thought that, in the short run and within strict limits of prudence, government policy can sometimes reduce unemployment. The space between these competing terminologies has virtually defined the modern debate among full-blooded academic macroeconomists in the United States.
2. The etymology of these two terms, the natural rate and potential output, is in fact quite different, but that is another story.
3. They also change with time and are refined with more detailed information. My 1998 book modifies the Galbraith-Calmon scheme considerably, but preserves and strengthens the essential insight on the key role of policy and macroeconomic forces in relative wage determination.
4. This same idea has also spread to the aberrant quarters of the political culture, where it surfaces in Charles Murray's notions about an IQ elite and Newt Gingrich's proposals to subsidize laptops for the poor.
5. Indeed, reduced classroom sizes and other necessary measures to improve schooling are labor intensive and actually reduce measured "productivity," for whatever that measure is worth.

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