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THE CHALLENGE OF HIGH UNEMPLOYMENT

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ABSTRACT

It is argued that policymakers, macroeconomists and microeconomists should all take high unemployment more seriously. The shortcomings of existing theories of unemployment are discussed, and a new definition of involuntary unemployment is proposed. A model is sketched in which falling aggregate demand leads to "Keynesian" unemployment because labor is heterogeneous and relative wages matter. Microeconomic theory is criticized for assuming away unemployment and, in the process, radically changing the answers to some basic questions in trade theory and public finance. Finally, some speculative explanations are offered for the low unemployment now found in states like New Jersey and Massachusetts.

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The Ely lecture is an occasion to indulge in big think, to eschew equations and "speak prose" -- a respite from the daily grind of vector autoregressions, Euler equations, and phase diagrams. I intend to take full advantage of this privilege tonight. Judging by past Ely lectures, it is also an occasion either to celebrate the profession (or one's own contributions to it) or to chide it. Some combination of flaws in my character and flaws in our discipline incline me toward the latter.

My topic is the challenge of high unemployment, one which both policymakers and economists have failed to meet. The challenge to policymakers is to reduce unemployment. About this, I will be brief and to the point. The challenge to economists is to explain high unemployment and understand its implications for things economic. Here I will dwell longer.

I. THE CHALLENGE TO POLICYMAKERS

The failure to provide productive employment for all those willing and able to work has long been one of the major weaknesses of market capitalism. Since the mid 1970s, it has been shamefully debilitating. If one picture is worth a thousand words, Figure 1 will help shorten the lecture. It shows unemployment rates in the United States and the European OECD contries in two different periods: 1961-1974 and 1975-1985. The contrast is stark.

The costs summarized in this graph are enormous for the U.S. and colossal for Europe. And the corresponding Okun gaps, wide as they are, understate the full costs. A high-pressure economy provides opportunities, facilitates structural change, encourages inventiveness and innovation, opens doors for society's underdogs, and yields a fiscal dividend that can be spent, among other things, on public charity. All these promote the social

cohesion and economic progress that make democratic mixed capitalism such a wonderful system when it works well. A low-pressure economy slams the doors shut, breeds a bunker mentality that resists change, stifles productivity growth, and fosters both inequality and mean-spirited public policy. All this makes reducing high unemployment a political, economic, and moral challenge of the highest order.

To make the point in extreme form, think about the U.S. economy during World War II, when unemployment virtually vanished, the economy flexed its muscles, and America truly became a land of opportunity. Among the remarkable features of this period was a 16% rise in real consumer spending between 1939 and 1944 despite the wholesale redirection of economic activity toward war production. Now imagine that there was no war and all those soldiers and equipment went abroad to work, not to fight, sending home no goods, just remittances. But leave in your minds all the rationing and other nasty Harberger triangles caused by the shortage economy. Ask yourself whether the utility of the representative American would have been higher under these hypothetical conditions or under the actual conditions of 1939 -- or, abstracting from secular growth, even 1987 for that matter. My suggested answer, you can tell, is yes.

A debater's point, you say, for wartime unemployment rates were absurdly and unsustainably low. Probably so. But remember that just 14 years ago the unemployment rates (using U.S. concepts) were 3.2% in the United Kingdom, 2.7% in France, and 0.7% in Germany. These are surely not unimaginable worlds. And think of the social dividend that would be reaped if those countries got unemployment even halfway back to where it was in 1973. Or think about the present-day United States. While many people see today's 6% national unemployment rate as "full employment," the unemployment rate is

more like 3-4% in Massachusetts and New Jersey. Those two states and parts of others do show clear signs of labor scarcity: Help-wanted signs are everywhere and wages are rising faster than the national average. For all I know, there may even be people whose marginal utility of leisure exceeds their wage. But there are no signs of chaos, and shortages of goods and services are rare. The local economies are, as a matter of fact, doing quite well, thank you. Wouldn't it be nice if the whole country were in such good shape? Aren't we wasting something precious if it could be?

Yet in the United States and, especially, in Europe, those in authority often accept high unemployment with an air of resignation, as if it stemmed from acts of nature rather than from acts of man. This is an attitude conducive to paralysis; and so we wind up with an excess supply of excess supply.

The European and American experiences differ both quantitatively and qualitatively. While there is much we do not know about the details, the broad outlines of the origins of high European unemployment are familiar enough. Intransigent trade unions and well-intentioned but unintelligent governments have erected a web of microeconomic barriers to full employment that both make labor more expensive and transform wages from variable into fixed costs. These include (with different weights in different countries) high minimum wages, excessive severance pay, heavy fixed costs of employment, restrictions on hiring and firing, support for the closed union shop, meaningless licensing requirements, heavy-handed workplace rules, and impediments to geographic mobility.[1] There is nothing at all "natural" about unemployment that results from such misguided micro policies, and economists rightly oppose them.

But there is also an important macro component to the slack we see in

Europe today. And in the United States, which has avoided the horror stories of European labor markets, restrictive policy is virtually the whole story behind the Great Recession of the 1980s. Put plainly, governments here and abroad have used high unemployment to exorcise the inflationary demon.

Unfortunately, economists are terribly divided on the relative importance of the micro and macro explanations for high unemployment. Some think macro policy played a major role in the drama; others assign it only a bit part. This internal schism, I am afraid, contributes to the policy paralysis -- which brings me to the role of economists, beginning with macroeconomists.

II. THE CHALLENGE TO MACROECONOMISTS

Every science has its game playing and puzzle solving. It's harmless, good clean fun, helps sharpen the mind, and occasionally turns up something spectacularly useful. Economics is no exception, nor should it be. But I want to suggest that contemporary academic economists have taken a good thing too far, pushed the game-playing aspects beyond the region of even positive marginal returns, and disengaged themselves from the practical policy concerns that affect the lives of millions. We will not contribute much toward alleviating unemployment while we fiddle around with theories of Pareto-optimal recessions -- an avocation that might be called Nero-Classical Economics.

It wasn't always that way. A century ago, Alfred Marshall concluded the inaugural lecture for his chair at Cambridge with these words:

> It will be my most cherished ambition ... to increase the numbers of those whom Cambridge, the great mother of strong men, sends out into the world with cool heads but warm hearts, willing to give some at least of their best powers to grappling with the social suffering around them.[2]

Even after translating the soppy Victorian prose into the modern vernacular, Marshall's sentiments are frightfully out of touch with the realities of contemporary academia, where a stubborn fixation on the real world is apt to be considered boorish, if not downright anti-intellectual.

Yet is Marshall's ideal really foolishly romantic? Isn't it better than Nero's? Didn't Keynes have a point when he longed for the day when economists would be as useful as dentists? Greater concentration on real, rather than imagined, problems need not make economics less scientific. Why, for example, are so many scientists now working on AIDS and cancer? Yes, I know that part of the answer is the one Willy Sutton gave when asked why he robbed banks: That's where the money is. But another part of the answer is: That's where the suffering is. It's a good answer, too.

Don't get me wrong. I am not suggesting that we all forsake mathematics for social work. Being a do-gooder may not be the best way to do good; nor should that be the sole concern of a scientist. Nor am I suggesting more top-notch, policy-oriented research will banish the scourge of high unemployment. Vested interests, ideological cant, and sheer ignorance surely hold more sway over policy than does economic science. I am suggesting something far more modest: that a major redirection of the work of hundreds of economists might conceivably raise the quality of national economic policy from, say, 3 to 4 on a scale of 10. Hell, Keynes did more than that by himself.

As I see it, the challenge of unemployment to macroeconomists is fourfold: to define involuntary unemployment, to explain it theoretically, to give the theory empirical content, and then to devise policies to reduce it.

FIRST CHALLENGE: DEFINE IT

Some economists, you know, lean toward the tautological view that anything done without literal compulsion must of necessity be voluntary. Others detect elements of involuntarism whenever constraints become too constraining. It may be that involuntary unemployment is like pornography: It's hard to define, but you know it when you see it.

Actually, defining involuntary unemployment is no trick at all in the mythical case of homogeneous labor. If labor supplied exceeds labor demanded at the going wage, the difference is literally and unambiguously involuntary. This simplistic view of the world identifies involuntary unemployment with wages that will not fall -- a point to which I will return. But with heterogeneous labor the simple definition no longer works, and the whole concept gets slippery. What wage do we mean? Which types of labor?

In the Keynesian oral tradition, the term "involuntary unemployment" signifies two major ideas. The first is that there are identifiably bad times, called recessions or depressions, when the unemployment rate rises and signs of economic distress are apparent. The second, and more controversial, is that unemployment tends to be too high on average. Pursuing the analogy to pornography, perhaps we should treat the term involuntary unemployment as synonymous with "pornographic unemployment": joblessness without redeeming social value.

This suggests an operational definition. Ask the following simple question of job losers and job leavers: Would you willingly take your previous job back on the terms now available in the market? If the answer is yes, the person is involuntarily (or pornographically) unemployed. This seems a straightforward test whenever there is well-defined previous job, but it cannot be readily applied to new entrants or reentrants.[3] Fortunately, job

losers and job leavers constitute 60-70% of total measured unemployment in the U.S. and about 75-80% of the rise in unemployment during recessions.[4] So conceptual difficulties with new entrants and reentrants are of minor practical importance. We can probably get an excellent indication of changes in involuntary unemployment by looking only at job losers.

The definition helps distinguish involuntary (or socially useless) unemployment from voluntary (or socially useful) unemployment. People who are enjoying leisure rather than working at what they perceive as unusually low wages would not be considered involuntarily unemployed since they presumably would not take their old jobs back on the previous terms. But few of the unemployed seem to be doing that, and the facts that real wages are (a) close to a random walk[5] and (b) not very cyclical[6] cast serious doubt on the empirical importance of intertemporal substitution in labor supply. Similarly, people who are actively pursuing productive job search are not uselessly unemployed. Certainly, there are such people; but probably not many. We know, for example, that the average job seeker spends only a few hours a week on search and rarely rejects a job offer.[7]

The mention of search brings up the second challenge: explaining high unemployment theoretically.

SECOND CHALLENGE: EXPLAIN IT THEORETICALLY

In my view, one main reason for our lack of progress in explaining high unemployment is that academic economists have spent too much time and energy debating whether involuntary (or pornographic) unemployment exists and too little theorizing why. Furthermore, too much of our theoretical debate has taken place within the confining strictures of homogeneous labor, where the question reduces to whether and why "the wage rate" is sticky. That is a

reasonable question; but it is not the only question.

Once we force ourselves to think seriously about the heterogeneity of labor, the very concept of wage rigidity loses precision. For example, is it the average level of wages or the structure of relative wages that is sticky? Instead of sterile debates about why rational people would leave unexploited Harberger triangles lying on the table, we start thinking about things like relative status and coordination failures. These are important issues. I suspect they may be central to understanding high unemployment. But they simply cannot arise in a homogeneous labor market.

Let me illustrate by pursuing the tantalizing question raised by search theory: Why doesn't an unemployed person take the first job she finds while continuing to look for a better one? As a stylized example, why don't unemployed steelworkers go to work at McDonald's? And, if they do not, should we consider their unemployment voluntary?

The traditional search-theoretic answer is straightforward and almost certainly wrong. It holds that search is so much more efficient off the job than on the job that the efficiency gains from searching while unemployed outweigh the lost income. No evidence supports this hypothesis. We know that people can search better on the job in some labor markets. Even in markets where search is best done while unemployed, it is hard to believe that a few hours of search activity per week interfere unduly with holding a job -- unless geographical relocation is necessary.

An alternative explanation posits the existence of substantial transactions costs from taking and leaving an interim job. On this view, the dislodged steelworker rationally refuses the job at McDonald's because his in-and-out costs exceed the value of the wages he could earn during a few weeks spent flipping hamburgers. This explanation is logically coherent and

even believable for people who anticipate an extremely short spell of unemployment.[8] But most unemployment is accounted for by long spells. For example, 54% of all unemployment in 1984 was accounted for by those unemployed for 27 weeks or more.[9] And besides, it is hard to see how the in-and-out costs of taking a short-term job could possibly amount to much more than one day's time. That can hardly explain voluntarily forsaking several weeks' wages.

Another possibility is that workers who lose "good" jobs worry about being stigmatized by taking "bad" jobs. I could make this explanation sound less like pop sociology and more like modern economics by gussying it up with words like signalling, asymmetric information, and adverse selection. I could even say it with algebra -- but not right after dinner. In whatever guise, the idea is simply that unemployed steelworkers do not want potential employers thinking of them as hamburger flippers. To those willing to venture beyond the confines of neoclassical economics, this is an appealing notion. But there is one big problem. An unemployed steelworker can lose the stigma and keep the income by taking the McDonald's job, omitting it from his resume, and telling prospective employers that he is unemployed.

So let me suggest an alternative hypothesis based on a very old idea, one which all social scientists but economists find compelling and for which Robert Frank (1985), in particular, has argued eloquently: that people care deeply about their relative status in society. To be more precise, suppose utility depends not just on the <u>level</u> of income but also on one's <u>position in the income distribution</u>. Suppose further, and this is the critical leap, that you retain the relative status attached to your old job until you take a new one. Thus an unemployed steelworker remains a steelworker -- both in his mind and in the minds of others -- until he takes a new job; then his status

changes. If concern about status is high enough and the gap between the available wage and unemployment compensation is low enough, the individual may prefer unemployment as a steelworker to employment on an inferior job.

Direct empirical evidence on this hypothesis is difficult to come by, though Frank (1985) has offered evidence for the importance of relative status in a wide variety of contexts, some of them even biological.[10] So, once again, a thought experiment may help. Suppose a plant closing costs a steelworker his job. After two weeks of puttering around the house, he walks past the local McDonald's and sees a Help Wanted sign. Does he walk in and take the job? I think not. Now <u>why</u> not? Is it because it would interfere with his job search? Not likely. Is it because he doesn't want personnel directors at other steel mills to think of him as a fast-food worker? Perhaps. But how would they know? I suggest that it may really be because he doesn't want his friends and neighbors -- and, especially, doesn't want <u>himself</u> -- to see him in that low-status position.[11]

Though based on concern for social status rather on coordination failures, this idea is reminiscent of an old Keynesian saw: that workers resist wage reductions because they are concerned that other wages will not follow suit. To hone and quantify our intuition, consider the following simple example that applies to either case.

Utility for individual i depends on his own real income and on the ratio of his own wage to some comparison wage, w_i/w_j. Using Cobb-Douglas utility for convenience, utility while employed is:

$$U = \left[\frac{w_i}{w_j} \right]^{\alpha} w_i^{1-\alpha} \equiv U_0 .$$

Now suppose the worker loses his job and must choose between accepting a job

paying λw_i ($\lambda < 1$) or remaining unemployed and receiving income bw_i ($b < \lambda$) from unemployment insurance, home production, or whatever. If he takes the job, utility is:

$$(1) \qquad U = \left[\frac{\lambda w_i}{w_j} \right]^{\alpha} (\lambda w_i)^{1-\alpha} = \lambda U_0 \ .$$

If he turns it down, he gets:

$$(2) \qquad U = \left[\frac{w_i}{w_j} \right]^{\alpha} (bw_i)^{1-\alpha} = b^{1-\alpha} U_0 \ .$$

Thus he will prefer unemployment to the low-paying job if and only if:

$$(3) \quad b^{1-\alpha} > \lambda \ .$$

When there is no concern for relative status, ($\alpha = 0$), only income matters and the bad job is preferred to unemployment as long as $b < \lambda$. But as α gets bigger, the lefthand side of (3) gets larger and the possibility that the worker might refuse the job grows. A convenient way to look at this is to ask how large b (the replacement rate) must be to induce the worker to turn down a job that offers a wage of λw_i. Table 1 tabulates the answer for various combinations of λ and α. For example, if $\alpha = 0.2$, the worker will turn down a job paying half his previous wage if his replacement rate is above 42%. The gap between 50% and 42% may not be exciting. But if α is as large as 1/2, the critical replacement rate drops to 25% -- meaning that the worker prefers unemployment and a 75% drop in income to a job paying half his previous wage.

Precisely the same comparison arises in the Keynesian case of uncoordinated wage cutting. If workers assume that those earning w_j will not take a wage cut, they expect to receive (1) if they accept a $100(1-\lambda)$% wage cut and (2) if they refuse and lose their jobs. Condition (3) is thus the condition for preferring a layoff to a wage cut when you do not expect other

wages to fall. It turns out also to be the condition for refusing the wage cut when you do expect other wages to fall, for if you take a cut and retain your job, you get $\lambda^{1-\alpha}U_0$ while if you refuse and lose your job, you get $\left[\frac{w_i}{\lambda w_j}\right]^{\alpha} (bw_i)^{1-\alpha} = b^{1-\alpha}\lambda^{-\alpha} U_0$. The latter exceeds the former if and only if (3) holds.

Perusing Table 1 makes it clear that the value of α is of great moment. If α is small, concern for social status cannot take us very far in explaining unemployment. If α is large, it becomes a powerful explanator. To "estimate" α, I again ask you to introspect. Imagine that in one case your university raises only your salary by 10% while in another it gives k% to everyone. How large must k be for these two events to give you the same satisfaction? Table 2 shows some answers for several values of α and raises of different sizes. For example, if $\alpha = 0.2$, a 10% raise given just to you is as good as a 12.7% raise across the board. Each of you can make your own judgment, but this strikes me as less concern with relative status than most real people have. Similarly, the $\alpha = 0.8$ column strikes me as much more. Personal introspection tells me that α is between 0.2 and 0.5. For example, if $\alpha = 1/3$, a 10% raise for me only makes me just as happy as a 15.4% raise for everyone in my university. That strikes me as roughly correct.

This much concern with relative status is enough to matter. For example, the entry that would appear in Table 1 for $\alpha = 1/3$ and $\lambda = 0.5$ is 0.35, meaning that I would rather accept unemployment and a 65% drop in income than take a job at half my present wage.

Now what I have just presented is an idea, not a model. It has been said that an economist is someone who sees that something works in practice and wonders if it also works in theory. I will not be so obtuse as to try to

Table 1

Replacement Rate Needed to Turn Down Job

	$\alpha = 0$	$\alpha = .2$	$\alpha = .5$	$\alpha = .8$
$\lambda = .90$	.90	.88	.81	.59
$\lambda = .80$	.80	.76	.64	.33
$\lambda = .70$	.70	.64	.49	.17
$\lambda = .50$	.50	.42	.25	.03
$\lambda = .30$	.30	.22	.09	.002

Table 2

Utility-Equivalent Raises

$\alpha = 0.2$		$\alpha = 0.5$		$\alpha = 0.8$	
Just for You	For Everyone	Just for You	For Everyone	Just for You	For Everyone
5%	6.3%	5%	10.3%	5%	27.6%
10%	12.7%	10%	21%	10%	61.1%
15%	19.1%	15%	32.3%	15%	101%
20%	25.6%	20%	44%	20%	149%

build a theoretical model incorporating this idea at this late hour. But the dim outlines of such a model are already implicit in an important recent paper by Laurence Ball and David Romer (1987b). Working with prices of goods rather than wages of labor, they show that a large real rigidity coupled with a small fixed cost of changing nominal prices can explain large non-neutralities of money. By analogy, I conjecture that it is possible to show that monetary shocks have large effects on employment when workers care about relative wages and firms have small fixed costs of changing nominal wages.

This is just one example of the possibilities that arise once we leave the mythical world of homogeneous labor--as I think we should. Happily, the latest developments in the never-ending quest for microfoundations of macroeconomics make heterogeneity an essential part of the story. I refer, in particular, to theories of unemployment based on imperfect information, efficiency wages, insider-outsider distinctions, and monopolistic competition. And I would like to see concern with relative wages and "fairness" included on this list, maybe at the top.

Models of labor markets with imperfect information stress such things as unobservable differences in productivity and inability of management to monitor the performance of individual workers. The central message of this burgeoning literature is that wages may not be able to clear markets because they are too busy doing other things. Insider-outsider models recognize the inherent asymmetry in the positions of incumbent workers and challengers. Heterogeneity of goods is, of course, the essence of monopolistic competition models. And efficiency-wage models provide many reasons why firms might deliberately set wages above market-clearing levels -- for example, to reduce turnover or to encourage greater work effort.

Each of these approaches contributes something to giving theoretical coherence to the Keynesian intuition that unemployment is often too high. However, I do not wish to oversell the results, for the welfare economics is a bit dicey. In imperfect-information and efficiency-wage models, "too high" generally means higher than in some unattainable perfect-information equilibrium. In monopolistic competition models, output is lower than it would be under perfect competition. In these cases, policy interventions are not always called for and, if they are, make not take the form of macro stabilization policy.[12] Still, I find all this a refreshing departure from the scholastic dogma of High Neoclassicism.

However, these new models have so far contributed little to explaining the changes in unemployment that we observe in time series and that we call business cycles. Indeed, some seem ill-suited to the task. Hysteresis models may be the most promising in this regard, especially in the European context, for they show how changes in demand can essentially drag supply along -- in a neat reversal of Say's Law.

Finally, these models shed little light on why nominal shocks have strong real effects, for each is fundamentally a story about relative prices or real wages. As I just indicated, one way to transform a real rigidity into a nominal rigidity is to add costs of changing nominal prices or wages. Akerlof and Yellen (1985) add fixed costs of changing prices to a model with efficiency wages.[13] Blanchard and Kiyotaki (1987), building on the insights of Mankiw (1985), do the same in a monopolistic competition model. I believe combining costs of changing money wages with a strong concern about relative wages and/or "fairness" is a promising approach to explaining how fluctuations in demand produce fluctuations in employment.

This theoretical work is still in its infancy (some of it is still in

utero) and is not without difficulties. While costs of changing prices certainly exist, it is hard to believe that they are large. That is why Ball and Romer's (1987b) demonstration that large monetary non-neutralities can result from the interaction of small nominal rigidities and large real rigidities is so important. However, costs of changing quantities also undoubtedly exist; so it is not clear that adjustment costs logically lead to rigid prices and flexible quantities. Finally, theories based on fixed costs of changing prices ("menu costs") need to be recast in a dynamic framework which recognizes that optimal strategies are likely to be variants of the (S,s) rule of inventory theory in which firms adjust prices at different times.[14]

The Keynesian promised land is not yet in sight; but we may, at long last, be emerging from the arid desert and looking over the Jordan. Let me use the license granted me on this occasion to peer beyond where we can really see and speculate briefly on the outlines of a model that is both theoretically respectable and can be explained in mixed company without embarrassment. The model I envision -- but do not have -- has three main ingredients.

The first is efficiency wages, so there is no tendency for labor markets to clear in the naive neoclassical sense. Large firms, most of which have market power and some fat in their cost structures, pay wages high enough to maintain a queue of qualified job seekers and to retain the workers they have. They do so because turnover is disruptive, because higher wages attract superior applicants, and, perhaps most importantly, because workers perform better when they feel they are well paid.[15] The result is excess supply and unemployment in equilibrium. I propose to call this unemployment involuntary, though nothing of substance rides on the name.

The second ingredient is the hypothesis that workers care deeply about relative wages. This accomplishes two things. It rationalizes firms' decisions to pay efficiency-wage premia. And it explains why a worker laid off from a "good job" may prefer unemployment to a "bad job," at least for a while. The latter makes it possible for secondary labor markets to clear, or even to have excess demand, while involuntary (or socially useless) unemployment exists in primary labor markets.

Third, small costs of changing nominal wages and prices, coordination failures ("I'll cut my wage if you'll cut yours"), and notions of fairness[16] combine to prevent full adjustments to moderate shocks, whether nominal or real.

Consider what might happen in such a model if aggregate demand declines. Sales fall in many sectors of the economy, but unevenly. Although prices might drop in sectors experiencing extreme declines in demand, fixed costs keep most prices fixed. Virtually no wages fall due to firms' fully rational fears that wage cuts would lead to lower productivity, perhaps because wage cutting is widely perceived to be unfair.[17] Instead, most firms reduce output and employment.

The cyclically-sensitive durable goods industries will be hit hardest by a typical downturn. It seems to be an interesting fact, which I will not attempt to explain, that they also pay very high wages.[18] Many of the workers laid off by those high-wage, cyclical industries will refuse low-status jobs in less cyclical industries, preferring to be unemployed steelworkers than employed hamburger flippers. Falling incomes lead to still-lower demand for goods, in a Keynesian multiplier process. Social welfare, I submit, falls.

THIRD CHALLENGE: EXPLAIN IT EMPIRICALLY

Economics is not an art form. So we must not be content with a coherent and vaguely sensible theory of unemployment -- welcome as that would be. We must give the theory empirical content, test it, and estimate its central parameters.

In a sense, macroeconomics has progressed further on the empirical front than on the theoretical front. The truth of the matter is that empirical Keynesian models equipped with Phillips curves that allow for supply shocks have done rather well lately. Furthermore, the Phillips curve has been one of the strongest links in the empirical chain. Despite frequent reports of their demise, Bob Gordon's equations are alive and well and living near Chicago.[19] Academic economists jettisoned the Phillips curve not because of empirical failures but because of a priori theoretical objections.[20] If we keep behaving like that, we may never become as useful as dentists.

What macroeconomics needs next is to give the new generation of Keynesian microfoundations some empirical teeth. You can think of this as providing theoretical justification for the Phillips curve, if you wish. I prefer to think of it as providing empirical justification for all the theorizing.

FOURTH CHALLENGE: DEVISE POLICIES TO REDUCE IT

Logically, of course, this is the last step. But Keynes did not work that way, and the world will not wait while we perfect our models.

Observation of real economies suggests that the qualitative effects of demand management policies are more or less as taught in the elementary textbooks, or at least in most of them. Among other things, that means there will be an inflationary price to pay if unemployment is reduced by

stimulating aggregate demand. It is the drive to subdue inflation, not any lack of knowledge about how to manipulate aggregate demand, that has accounted for high unemployment these past dozen years.

The nature of the policy challenge depends sensitively on whether or not the natural rate hypothesis is valid. If it is, then we can do no more than seek to flatten the Phillips curve or reduce the natural rate by labor-market policies. That remark is a place to begin a lecture, not to end one, so I will not pursue it further.

More enticing possibilities emerge if the natural rate is not so natural. Suppose, for example, that the equilibrium level of unemployment is strongly affected by hysteresis. Then a boost to demand might give the economy much more than a temporary high; it might actually lower unemployment permanently. My Keynesian instincts tell me that the low-unemployment equilibrium must be better than the high-unemployment one.

U.S. data for the 1980s look pretty consistent with the natural rate hypothesis to me -- with a natural rate in the 5.5%-6% range. But there is room for doubt. However, both the evidence of the senses and econometrics shun the natural rate hypothesis for Europe,[21] where none of the microeconomic factors comes close to explaining a quadrupling of unemployment. There a dose of expansionary policy might do the world a world of good.

III. THE CHALLENGE TO MICROECONOMISTS

Macroeconomics has long been regarded as the poor cousin of microeconomics, and with some justification. Surely it is mainly macroeconomists who have sullied the family name. But that is not because

microeconomists have dealt with unemployment better; far from it. For the most part, microeconomic analysis ignores unemployment, as if it were an institutional detail of no great import.

Working within a full-employment framework would be justifiable on division-of-labor grounds if the premise of the neoclassical synthesis had been fulfilled. But plainly it has not been. Governments have failed to maintain anything like full employment and therefore have not created the conditions under which standard microtheory applies. Alternatively, the microeconomist's fixation on full-employment models might be legitimate if allocative decisions neither affected nor were affected by the overall level of employment. This might be true in some applications,[22] but there is no reason to think it holds generally. Let me illustrate with two examples.

INTERNATIONAL TRADE THEORY

My first example is trade theory. Virtually all economists support free trade; but a frustratingly large number of noneconomists do not. Members of our fraternity are constantly amazed at the depth and strength of protectionist sentiment, which we view as evidence of either rent-seeking behavior or low intelligence. Doubtless, some protectionists qualify under both rubrics. But I want to suggest there is more to the matter.

One reason for economists' near-unanimous support of free trade is our use of the long-run, full-employment framework for policy evaluation. In our world, workers displaced by foreign competition move into industries in which our country has a comparative advantage. That can only raise productivity; so both GNP and social welfare should rise. How, except as viewed through the distorting lenses of a special pleader, could that be bad?

But people unencumbered by advanced degrees in economics see trade

policy differently. They live in real space and time, where unemployment truly exists and workers displaced by foreign competition often move into unemployment rather than into new jobs. So they reason that our GNP will fall if our markets are opened to free trade. How, except in the strange world of the economic theorist, could that be good?

The two world-views generate rather different predictions. Which is right?

Consider a concrete example. Korean firms learn how to make television sets efficiently and want to export them to the United States. The TV industry and its workers petition Congress for a strict quota to "save jobs." Economists scoff at the idea. According to standard trade theory, America can only gain by opening its borders to Korean TVs. A quota cannot save jobs; it can only trap labor in an industry in which the United States has no comparative advantage.

Though oversimplified and missing many of the qualifications a good trade theorist would want, this conclusion probably characterizes the typical economist's view of the matter. And it is also probably the right view for the long run. It might even be right for the short run, if the unemployment rate were 4%. But suppose Korea learns how to make TVs when the U.S. unemployment rate is 10%. Who can honestly assure a displaced factory worker that she will quickly find a new job at a wage close to her present one, as she would in the world envisioned by Ricardian comparative advantage? Isn't it more likely that she will suffer a spell of joblessness, perhaps a lengthy one? Aren't these short-run costs relevant to any social decision?

I anticipate your response and I agree with it: The appropriate solution is not to erect trade barriers but to pursue a vigorous full-employment policy so that displaced workers will be quickly reemployed. That is

precisely my point. Conditions of full employment are necessary to validate standard propositions in trade theory. High unemployment calls many of these propositions into question. Both the positive predictions of trade theory and its normative prescriptions may be wrong. For example, Brecher (1974) showed years ago that, when unemployment results from a rigid real wage, free trade may reduce both employment and welfare. Furthermore, if unemployment were eradicated by abolishing the wage floor, patterns of trade might reverse. Those who are wary of free trade may have a valid point in the presence of unemployment, as even Adam Smith realized.[23] At the very least, trade adjustment assistance should perhaps become a more integral part of the advocacy of free trade.[24]

Now, I am not trying to argue for protectionism. Though we may all be dead in the long run, someone will be alive. And a nation that protects one senile industry after another winds up looking like a nursing home for state capitalism. Economists correctly seek to avoid this outcome. Besides, the mere existence of unemployment does not by itself imply that protection is better than free trade.

I am arguing, however, that trade theorists could do their job -- the job Marshall wanted them to do -- better if they paid more attention to the short run. At a minimum, it would narrow the communication gap between economists and the public. We insist on speaking in a long-run equilibrium dialect to people who live in a short-run disequilibrium world. No wonder what we say sounds Greek to them. We could, I believe, spend more time in their world without abandoning our own. And, if we did, everyone would benefit. Isn't that an unexploited Harberger triangle?

The phenomenon of unemployment, of course, is not unknown to trade theorists; and some interesting work has been done. But ask yourself what

fraction of the enormous trade-theory literature deals with unemployment. 10%? 5%? Can that be an optimal allocation of resources?

PUBLIC FINANCE

My second and last case in point, public finance, is a far greater offender. Once we get past the sizable literature on unemployment insurance, hardly any work in public finance even recognizes the existence of unemployment. Looking at this allocation of scholarly resources tempts me to prescribe a Pigouvian tax on full-employment theorizing.

Here is what we typically tell our youth about the incidence. An excise tax is imposed on commodity A. In consequence, the price of A rises and the quantity falls. Resources released from the A industry migrate into the B, C, D ... industries, where prices therefore fall and quantities rise. In the end, labor and capital are reallocated, relative prices adjust to the tax distortion, and another deadweight loss is born -- about which we teach our students to worry deeply. Chances are that neither the price level nor aggregate employment ever arises.

Ordinary people may be forgiven for wondering if something important has not been left out of the story. Will displaced workers really be quickly reemployed in other industries? Aren't they more likely to experience a transitional period of joblessness, perhaps a long one? And won't the excise tax raise the price level? Old-fashioned macroeconometric models, you'll note, share this common-sense view. Plug an excise-tax hike into the DRI or Wharton model and you'll get back increases in both prices and unemployment. (You won't get the Harberger triangle, which is a shortcoming of these models.) Maybe, just maybe, the macro models are right and the micro theorists wrong.

I am not looking to score debater's points here. My claim is that many of the most cherished results of incidence theory change fundamentally once we allow for unemployment.

Consider, for example, the simple idea that an increase in an excise tax raises the price of the commodity to consumers. In one of the few papers on public finance theory in the presence of unemployment, Dixit (1976) showed that falling employment might so depress demand that the price of the taxed commodity actually falls.

Or consider what may be the most basic theorem of public finance: the irrelevance of the side of the market on which a tax is levied. We all have had fun explaining to our beginning students why it doesn't matter whether the payroll tax is levied on employers or employees. Then why, perhaps we should wonder, do Congress, labor, and management all think the decision so momentous? Sheer lack of understanding? Maybe. But maybe not.

I submit that part of the answer is, once again, that we economists insist on thinking long-run equilibrium while everyone else lives in short-run disequilibrium. The truth of the matter is that the incidence of the payroll tax may differ dramatically in the short and long runs; and, as Hamermesh (1980) showed with an empirically-based simulation model, the short run may not be so short.

To see why, let us trace through what would happen if Congress abolished the employee's share and raised the employer's share by an equal amount -- a non-event in the eyes of conventional theory. Initially, contractual wages are fixed, so both labor costs and take-home pay would rise. That, as we know, would create excess supply in labor markets, wages would fall, and so on. You can all complete the story leading to the conclusion that, in the end, nothing will have changed.

True enough. But the end is not the beginning. By blithely skipping over the adjustment period, we miss something important. Immediately after the law changes, firms are paying more and workers are receiving more; so capital bears the entire burden of the tax change -- just as our mythical Congress intended. Had Congress shifted burdens in the opposite direction, labor would have lost out in the short run. So Congress's decision really does matter, at least for a while. No wonder workers and capitalists fret over where the tax is levied and are mystified by economists' indifference. We call them myopic. They call us out of touch. Both, I am afraid, are right.

Essentially this same point underlies an interesting recent paper by Poterba, Rotemberg and Summers (1986) which shows that a balanced-budget shift from direct to indirect taxation will reduce employment in a Keynesian model with nominal rigidities, but not in a classical full-employment model. In a similar vein, van de Klundert and Peters (1986) coax a number of fascinating results out of a disequilibrium simulation model reminiscent of Dixit's theoretical paper. They find, for example, that a sales tax given back in a lump sum reduces employment dramatically more in the Keynesian first period than in the classical steady state.

Thus the differences between the long-run equilibrium results that we know and love (and teach to our young) and the short-run disequilibrium results that people actually experience are no mere quibbles. They may be fundamental. And that may be one reason why our advice so often falls on deaf ears.

Once again, the solution is not to abandon long-run analysis. The long-run questions are important and meaningful, and here economists are often right and the public wrong. Rather, the solution is to allow some consideration of short-run employment effects to creep into and temper our

analysis.

IV. VISIONS OF SUGAR PLUMS...

Lest I have failed to say anything provocative so far, let me conclude by trying once again, on this third night after Christmas, to get visions of New Jersey -- or, if that is impossible, Massachusetts -- dancing in your heads.

America now has a remarkable swath of prosperity in its northeast quadrant. It starts around Boston, runs through most of New England and down to the New York metropolitan area, then continues through central New Jersey and Philadelphia and on into Delaware, Maryland, and Washington, D.C., finally ending in portions of Virginia and North Carolina. By world standards, this is a very large economy; and, within it, unemployment rates of 4% and below are common.

Three questions cry out for answers. First, what created the boom? Second, how have these prosperous states managed to sustain such tight labor markets without blowing the lid off inflation? Third, could the entire United States accomplish something similar?

Both New Jersey and Massachusetts moved from the basket cases to showcases in a scant eight years.[25] New Jersey's unemployment rate went from 2.7 percentage points <u>above</u> the national rate in 1976 to 2.3 points <u>below</u> in 1984. Massachusetts' unemployment rate went from 2.6 points above the national rate to 2.7 points below between 1975 and 1983. How?

The answers are not well known and are probably not simple. Obviously, it was not Keynesian demand management by the state governments. However, rapid aggregate demand growth did play an important role in Massachusetts, which benefited from strong defense spending and "exports" of high-technology

manufactures to the rest of the United States. But New Jersey's economic renaissance came while its manufacturing sector was dwindling from 33% of private sector employment to only 23%. Services, especially information services, and construction led the way.

At the national level, we understand how to stimulate demand. So the more interesting question is how New Jersey and Massachusetts have kept inflation in check despite stunningly low unemployment rates.[26]

Two hypotheses can be ruled out immediately. The first is that stingy unemployment insurance and other tight-fisted government policies lowered the natural rates of unemployment. None of this is remotely close to the truth in either state.[27] The second hypothesis is that immigration or, alternatively, the use of guest workers provided these states with large influxes of labor at more or less fixed wages. No such thing happened. In fact, population growth in Massachusetts and New Jersey has been slower, and wage growth faster, than in the rest of the country. And I can assure you that New Jersey sends more guest workers -- we call them commuters -- to New York than New York sends to New Jersey.

The reasons must lie elsewhere. Let me offer two speculative possibilities. The first is hysteresis. Whether because outsiders became insiders, because high employment led to high capital formation, or because rapid growth stimulated innovation, the equilibrium unemployment rates in these two states may now be far lower than they were in 1975. If that is the explanation, we are left wondering whether the entire United States might do something similar.

The second has to do with openness. Each state of the union is a small open economy with fixed exchange rates and no trade barriers vis-a-vis the others. In can therefore acquire the goods its citizens demand at more or

less fixed prices in the huge national market. That is why textiles, shoes, refrigerators, and automobiles cost no more in New Jersey and Massachusetts than in the other 48. Nontraded goods, of course, are a different matter. Housing prices in the Boston and Princeton areas (indeed, in all the suburbs of New York), for example, are legendary. Were these states closed to trade with the rest of the country, their inflation rates would undoubtedly be much higher.

But what about the nation as a whole? America is certainly not a small economy. Nor is it as open to trade with the rest of the world as individual states are with the rest of the nation. Nor is the exchange rate fixed. So, if the national labor market tightened dramatically, we could not count on an infinitely elastic supply of imports to keep inflation as subdued as in New Jersey and Massachusetts. However, we could count on the world market to provide some moderation of inflationary pressures in tradable goods -- at least as long as the rest of the world was not also in an exuberant boom. So perhaps the nation, with a balanced monetary and fiscal expansion and thorough-going free trade in goods (but not in labor), could emulate the Massachusetts and New Jersey success stories to some degree.

This is an important respect, I believe, in which free trade helps support a policy of low unemployment. And I argued earlier that low unemployment helps support free trade. That raises the tantalizing possibility of a virtuous circle in which high levels of aggregate demand create tight labor markets while open international trade moderates inflationary pressures. Now, that would truly be a grand neoclassical synthesis. But, to get there, policymakers, macroeconomists, and microeconomists all must rise to meet the challenge of high unemployment.

To do so effectively, we must leave the rubble of academic Star Wars

behind us. We must stop arguing over easy questions with known answers (like whether socially useless unemployment exists), and start worrying about difficult questions with unknown answers (like which of the theoretical explanations for unemployment are empirically important). Macroeconomics these last 15 years has accomplished far too little that would make Alfred Marshall proud. It is time we gave that grand old man his due.

[1]Among the many possible references that could be cited, see the special 1986 supplement of Economica or Gennard (1985).

[2]A. Marshall, "The Present Position of Economics," in Pigou (1925, p. 174), original in 1885. I thank Avinash Dixit for finding this quotation.

[3]Clark and Summers (1979) have argued persuasively that many reentrants are really job losers. The definition also applies to such people.

[4]Data on unemployment by reason are available only for the last four recessions. In those recessions, job losers and leavers accounted for 70%, 73%, 93%, and 80% of the peak-to-trough rise in the unemployment rate (using NBER cycle dates). The vast majority of this was from job losers. A regression of the job loser rate on time, a constant, and the overall unemployment rate (monthly data, January 1967 to February 1987) produces a coefficient of 0.75 on the latter.

[5]Altonji and Ashenfelter (1980).

[6]Geary and Kennan (1982), Bils (1985).

[7]Clark and Summers (1979, pp. 54-55). Only 10 percent of unemployed people in the special 1976 job-search survey reported rejecting a job offer.

[8]In such cases, intertemporal substitution is also an attractive explanation.

[9]See Summers (1986), Table 5, page 353.

[10]Interviews conducted by Jean Baldwin Grossman (1980) found that most firms adjusted above-minimum wages promptly after the statutory increase in the minimum wage in January 1979.

[11]As evidence for this, labor economists have found that high previous wages lead to high reservation wages. See, for example, Kiefer and Neumann

(1979).

[12]Ball and Romer (1987a).

[13]Akerlof and Yellen actually assume what they call "near rationality." This is equivalent to rationality in the presence of fixed costs.

[14]Caplin and Spulber (1987) illustrate the idea; but their analysis pertains only to steady states with constant s and S. In reality, s and S will undoubtedly be time varying. See, for example, the analysis in Blinder (1981) or Bar-Ilan and Blinder (1988).

[15]Akerlof (1982), Akerlof and Yellen (1987).

[16]Kahneman, Knetsch, and Thaler (1986).

[17] Kahneman et al. (1986), also Kaufman (1984).

[18]In part, the high wages are compensation for the volatile emplopment. But I doubt that this is the whole story, for if low-wage, stable jobs were just as desirable as high-wage, variable ones, why would there always be queues of prospective workers at the high-wage firms?

[19]Gordon (1988).

[20]Blinder (1986), Blanchard (1987).

[21]Blanchard and Summers (1986).

[22]For example, some micro policies are too small to have meaningful macro effects (e.g, airline deregulation). Another possibility is that central bank policy fixes real GNP.

[23]Myint (1958).

[24]Riordan and Staiger (1987) show that trade adjustment assistance is welfare improving if terms of trade shocks are large enough. In their model, the unemployment results from informational asymmetries.

[25]On Massachusetts, see Ferguson and Ladd (1986) and Bradbury and Browne (1987). The New Jersey story has been studied much less. See the 18th

Annual Report of the State's Economic Policy Council.

[26]There is no CPI for New Jersey. But inflation rates in both the Philadelphia and New York City areas have been slightly below the national average. Inflation in the Boston area has run only slightly higher than national inflation.

[27]The taxpayers' revolt in Massachusetts is sometimes cited; but the timing is all wrong. Tax cuts began in 1981, but the "miracle" occurred between 1975 and 1983.

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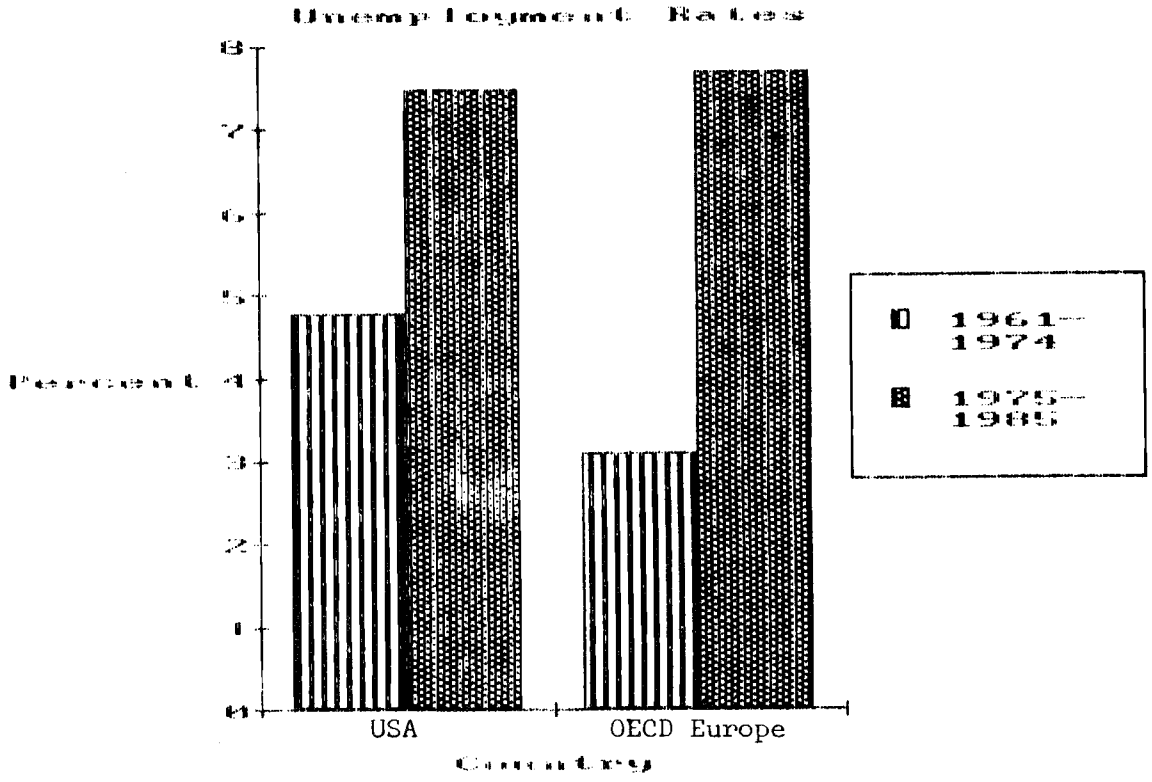
Unemployment Rates
Percent
8
7
6
5
4
3
2
1
0
USA
OECD Europe
Country
1961–1974
1975–1985

FIGURE 1