major determinant of current spending—just as Keynes had asserted. That is not necessarily inconsistent with RE/PHI notions because innovations in income are mostly permanent, but it does shift the emphasis away from long-run average income and back to current income. Second, liquidity constraints of one sort or another probably play some role in the consumption function, which is, of course, another Keynesian idea. Third, the "excess sensitivity" results of Flavin [27] and others notwithstanding, there do seem to be some gains in decomposing income and wealth into anticipated and unanticipated components [15].

However, at a more fundamental level, the RE revolution, in pointing consumption theorists toward ever tighter theoretical formulations of the PIII, may have pointed in the wrong direction. Specifically, accumulating evidence suggests that the life-cycle PIII model, which looks so good in time series, may be quite wrong. I am referring here both to the indirect evidence that life-cycle accumulation may be small relative to inherited wealth[25] and to a variety of studies on longitudinal data which fail to detect the patterns predicted by life cycle theory.24 These issues have not been fully sorted out yet, but it is possible that entirely new approaches to the consumption function are called for. If so, it seems unlikely to me that strict adherence to narrow-minded conceptions of maximizing behavior will play major roles in the rehabilitation of the consumption function. But perhaps my expectations are not rational.

V. In Conclusion

By the early 1950s, the Keynesian revolution was consolidated. The next 20 years or so were a productive time in which Keynesian ideas were developed further, modified in places, and given empirical content. New features, like the Phillips curve, were grafted onto; and the entire apparatus was built into giant "realistic" models of the economy. Much, but not all, of that development stopped in the 1970s as macroeconomics turned introspective and nihilistic. Some of the fundamental questions raised were good ones (Why should expectations be adaptive?), others were not (Does the labor market really clear every period?). But they did stop a constructive research agenda dead in its tracks. Some will say that was necessary, for the 1972 consensus was leading us astray. I am less convinced. I cannot help thinking that macroeconomics would be better off today if Lucas's valid questions about how expectations were handled in theoretical and empirical models had redirected the Keynesian research agenda rather than derailed it. It may now be time to get the train back on the tracks.

22Hilt and Mitikhi [43], Iyaghi [54].
23Katloff and Summers [57], see also Modigliani's [67] critique.
24Blinder, Gordon, and Wise [15], Nuer [49], Miller [56].

THE REVOLUTION RESTORED: KEYNESIAN, UNEMPLOYMENT, INFLATION AND BUDGET DEFICITS

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Just about half a decade ago Martin Feldstein chaired a session in which he introduced me as "the outstanding Keynesian, indeed, probably the only surviving Keynesian." It was not clear that the description was intended to be flattering, particularly to the somewhat business-oriented group I was addressing. But the description was hardly accurate even then. I suppose, though, that those of us who held the faith were all in some sense "outstanding," in contrast to the roars from sometimes clashing supply-siders, monetarists, and market-clearing rational expectationsists.

That Keynesians no longer stand out so much may be attributed in considerable part to the force of the great recession of 1981-82. The pressure of 10.7 percent unemployment can bring some rethinking among all but the most stubborn. But in the spirit that "soon or late, it is ideas ... which are dangerous for good or evil," let me suggest some which may explain the recession in Keynesian influence and grounds for its resurgence. Those ideas center about the wealth effects of government obligations to the private sector in the face of changing levels of prices.

I. Prices and Underemployment in a Keynesian Model Without Inflation

That significant lessons of the Keynesian model can be and have been drawn with the assumption of fixed prices—or more exactly, in Keynes' phrase, with a given wage unit—has apparently misled many over the years. For the most essential Keynesian conclusion is that, with or without fixed prices or wages, a modern competitive economy may not endogenously maintain full employment or correct departures from full employment within any reasonable period of time, if at all.

The problem, of course, is the possibility of inadequate effective demand. This is readily demonstrated with a fixed price level (or wage unit) in terms of saving and investment demand curves which intersect at less than the full employment level of output or, when defined for full employment, intersect at unsustainable rates of interest. These rates are unsustainable either in the sense that they are below the levels at which the supply of money would, if ever pushed that far, spill into a liquidity trap or, ultimately, are negative.

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But all of this is not to assert that the price level or wage unit is in fact fixed. Indeed much of The General Theory involved consideration of what would happen were wages and prices flexible. The useful point of the simplicity precisely in Keynes' demonstration that abandonment of the assumption does not invalidate his fundamental conclusion.

In a Walrasian model we assume that excess supply of any good or factor of production will generate a decline in its price. But the remedial effects of lower wages on employment must be found in a substitution of labor for other factors of production or in an increase in aggregate demand.

The substitution of labor for other factors of production depends upon essentially fortuitous changes in relative prices or expected relative prices, difficult to reconcile with assumptions of perfect competition and generally flexible prices. Increases in aggregate demand relate to lower interest rates or a real balance effect which increases public perceptions of its real wealth.

Lower interest rates can help but the question is how much? Can the help be expected to be sufficient to end any departure from full employment? Decline in the rate of interest would be hounced ultimately by zero or by the height of the liquidity trap, even if, as Keynes points out, we have never allowed ourselves or pushed ourselves into the trap. The interest effect will then be insufficient unless the interest elasticity of aggregate demand and, particularly, investment demand, is sufficiently great. As I have insisted elsewhere, 1) Keynes argued that this critical interest elasticity of investment demand did not seem to be sufficiently large, 2) credible econometric estimates, of course including my own, confirm that it is not very great and, 3) not the least, the whole Keynesian explanation of unemployment would lose its foundation if that elasticity were very great. Any slack in effective demand would readily be eliminated by automatic declines in the rate of interest.

What then can be the role of flexible wages and prices? The excess supply of labor, generating a decline in money wages, must be assumed under competitive conditions to generate a fall in the general level of prices. This may be seen, in turn, as generating a fall in the demand for money in nominal terms or, in Keynes' formulation, an increase in the real supply of money. In either event, interest rates decline. But if the potential fall in interest rates is limited and if the interest elasticity of investment demand is correspondingly insufficient, this path to the return to full employment is blocked.

We are left then with the propositions that lower price levels generated by an excess supply of labor may eliminate the excess supply if they have a sufficiently positive effect upon perceptions by the public of their real wealth, the so-called Pigou effect after the arguments of Haberler and Pigou, well discussed by Patinkin 2. As is perhaps not sufficiently widely recognized, this argument loses its foundation in a truly private, competitive economy where there is no government debt, interest-bearing or non-interest-bearing. For here there is no "outside" asset fixed in money terms that will increase in real value as the price level falls.

There are of course further difficulties. As Patinkin pointed out, they may relate to the dynamic problem of how declines in prices, as opposed to a lower level of prices, can be achieved in the face of bankruptcies en route and/or elastic price expectations which will induce delays in purchases. But finally, the saving function may be such that, as wealth increases, the desire to save or accumulate more may eventually dominate the decreasing marginal utility of consumption. In the short run, given the limited speed at which prices can be expected to fall, the wealth effect may prove inadequate in generating additional demand necessary to restore full employment. But even in the long run, at least the theoretical possibility remains that the wealth effect will be insufficient. In the words of Patinkin, the "Pigou effect," that a lower level of prices, ceteris paribus, will generate greater effective demand and lower unemployment may be true but the "Pigou theorem," that this must imply a return to full employment, may not be true. Hence, in the non-inflationary Keynesian model, price movements may not serve the role of guaranteeing full employment.

If we accept the view that Keynesian unemployment does not require imperfectly flexible wages and prices, what is their role? Is it, simply enough, to give definition to the price level. By this view, the intense search for "microfoundations of macroeconomics" and, in particular, the excellent work on implicit and explicit contracts, serve the function not of explaining why there is unemployment but, rather, why wages and prices, as Keynes suggested, have some stability and do not fail to zero when effective demand is less than the output associated with full employment or, as some would define it, the "natural" rate of employment.

II. Unemployment and Inflation

On the one hand, the contrite insisted that Keynesian theory was fatally flawed in failing to account properly for the role of prices in preventing involuntary unemployment. On the other, particularly in the 1970s, they argued that the Keynesian model was inapplicable to a world of inflation. Playing on earlier adoption by some Keynesians of simplistic Phillips curve, they maintained that the coincidence of unemployment and inflation dictated re-jection of the Keynesian model. It is instructive to note the explanation offered by Robert Lucas, for prim's example, of the economic evidence that led him to question and reject the Keynesian model to which he had initially sought to contribute, and to build his own substitute paradigm. It was that the Keynesian theory led to the policy conclusion that government budget deficits and easy money would bring about the curbing and reduction of unemployment, and that conclusion was contradicted by the facts. Keynesians had conceded that the fiscal and monetary stimulus might cause some inflation, but this would be accompanied, it was argued by others, low unemployment. Lucas observed, with Thomas Sargent, that the lesson of the 1970s was that "massive government budget deficits and the high rates of monetary expansion" were not accompanied by increasing unemployment but by growing unemployment and growing inflation. 3

If significant fiscal and monetary stimulus bring on accelerating inflation while leaving unemployment high, the Keynesian view of the world would indeed seem out of kilter. But is that accurate recent history? Was it really true, as one witty graduate student is reported to have said after release of official unemployment figures during the depth of the 1981-82 recession, that the unanswered unemployment rate has reached 10.8 percent or is there something else to the story? Is it possible that fiscal policy can prove very potent, as Keynesians have insisted, but that it was not really expediatory in the 1970s and on and into the beginning of this decade. Perhaps the causes of what appear to be accelerating inflation are to be found in a succession of supply shocks in petroleum and world agricultural markets. And the unemployment then stemmed very considerably from fiscal and monetary policies which, in response to inflation, were, sorrowfully or implicitly, contractionary. What then of the charge by Lucas and others that large budget deficits which, according to Keynesian theory, should have reduced unemployment, were in fact associated with increasing unemployment? The answer is that budget deficits that reduce unemployment would have to be real budget deficits. And real budget deficits, in the tradition of Haberler and Pigou in their arguments that a declining price level would reduce unemployment by raising the real value of private claims on the government, would have no net value of debt.

3See, for example, [3], p. 2, and [4], p. 295.
In this sense, then, the deficits that Lucas—and Keynesians—saw in the 1970s were not real deficits. As I have now pointed out in a number of places, the combination of rising interest rates which lowered the market value of debt held by the public, and inflation lowering the real value all the more, converted the nominal budget deficits into real surpluses. From 1977 through 1980, for example, cumulative reported federal budget deficits came to $152 billion. Adjusting for price and interest effects on the real value of federal net debt, we find not cumulative deficits, but cumulative surpluses of $72 billion over this period. When we turn to the more relevant high employment budget, we find that it has been reported in deficits for every single year from 1970 to 1984. But again including the inflation tax stemming from rising prices and interest rates, the adjusted high employment budget was very substantially in surplus for the years 1977 through 1981. And by a finer measure of fiscal thrust, taking into account the generally rising share of federal expenditures which were transfer payments and payments of nominal interest rather than purchases of goods and services, fiscal tightness was probably all the greater.

Inflation could thus hardly be ascribed to excess demand associated with increasing fiscal ease and stimulus if there was no such movement to fiscal ease. Rather, a substantial explanation of sluggishness in the economy, climaxing by the severe 1981-82 recession, might be found in a relatively tight fiscal policy as well as in the widely blamed (or credited) role of monetary policy. Since Keynesian theory—and the "Keynesian-neoclassical synthesis"—would have predicted that the combination of really tight fiscal and monetary policy would depress aggregate demand and hence increase unemployment, there is nothing in this economic history which can properly motivate rejection of the Keynesian model.

This also leads to a new view of the seemingly shifting and unstable Phillips curves originally thought to show a negative correlation between inflation and unemployment. The acceleration of inflation over a number of years should not have been attributed to movement up the vertical Phillips curve at the "natural rate of unemployment." For if demand was insufficient, employment was below its "natural" rate and the causes of the acceleration of inflation were to be found elsewhere. The relevance of the new "equilibrium" macroeconomics is also called into question. If increasing unemployment is found again to be associated with inadequate aggregate demand because of real, unrecognized, budget surpluses, there seems less point in the equilibrium explanations. It becomes all the harder to believe that unemployment grew because workers increasingly decided that the real wages being offered were inadequate.

And similarly, we need not explain reductions in unemployment in terms of workers, not recognizing that prices are rising as rapidly as wages, being fooled into thinking that the real wage is higher and hence accepting work or jobs that they would otherwise reject. The explanation of the sharp economic recovery and reduction of unemployment from 1983 through 1985 is to be found very clearly, within the Keynesian model, in terms of a vast shift in fiscal as well as monetary posture. Not only did massive tax cuts and increases in military expenditures move the budget to huge nominal deficit, the declining inflation—both from exogenous oil price movements and the recession itself—and falling interest rates sharply reduced and even reversed the corrections for price and interest effects on the real value of outstanding debt. The high employment budget shifted from an adjusted surplus equal to 1.45 percent of GNP in 1981 to an adjusted deficit of 2.01 percent of GNP in 1982, the largest such shift to deficit on record. In this, along with easing of monetary policy, we find a clear explanation of the major, if still insufficient, reduction in involuntary unemployment.

References

III. Conclusion
There is perhaps a moral to all of this. Good theoretical models should always be subject to fleshing out with facts. And facts can be troublesome. There is some folly in viewing the economy as one in which all prices are perfectly flexible, when it is clear that most of them are not. It is useful to try to explain why they are not and what makes them move.

But it is also important when some facts seem to contradict an otherwise useful theory, to make sure the facts are relevant and right. In the case of conventional measures of fiscal policy and, as deregulation would appear to make increasingly clear, very likely with monetary variables as well, the facts have not been what they seemed.

As the full impact of all of this becomes apparent, The General Theory, after half a century, will prove more alive than ever.