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Permanent On-The-Spot Job Creation—The Missing Keynes Plan for Full Employment and Economic Transformation

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Abstract The paper rejects the conventional view that Keynes had an aggregate demand approach to full employment. Instead, it proposes that he advocated a very specific labor demand targeting approach that would be implemented both in recessions and expansions. Modern policies, which aim to “close the demand gap” between current and potential output are inconsistent with Keynes’s work on theoretical and methodological grounds. There is considerable evidence to suggest that a permanent program for direct or (in his words) “on-the-spot” job creation is the missing Keynes Plan for full employment and economic transformation. The current crisis presents the social economist with a unique opportunity to set fiscal policy straight along the original Keynesian lines. The paper suggests what specific form such a policy might take.

Keywords: Keynesian fiscal policy, output gap analysis, aggregate demand management, direct job creation, full employment

1. INTRODUCTION: REORIENTING ECONOMIC POLICY

John Maynard Keynes once wrote to T.S. Eliot that the trouble with formulating policies for full employment was that economists lacked both the intellectual conviction of their feasibility and the cleverness to design them (Keynes 1980: 384). Good intentions were never the problem. Two years after the 2008 financial meltdown and trillions of well-intended stimulus dollars later, the unemployment rate has remained stubbornly high, indicating that

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we are more in need of intellectual conviction and cleverness today than ever before in the postwar era.

This paper attributes the disappointing employment results largely to a fundamental misreading of Keynes's own approach to fiscal policy across the theoretical spectrum, which in turn informs real-world policy making. Specifically, it claims that Keynes's policy approach has been misidentified as the *aggregate demand* approach of varying current expenditures, private or public, to secure a desired rate of growth, which in turn would produce the desired level of employment. By contrast, this paper proposes that Keynes had a very specific *targeted demand* approach, which aimed to close, not the demand gap for output, but the demand gap for labor. The article will address the key theoretical and methodological reasons for this non-trivial distinction that have received little consideration in the literature.

What was the clever Keynes Plan for full employment? When James Meade urged him to develop the details of such a postwar program, Keynes famously exclaimed that "another Keynes Plan might be one too many" (Skidelsky 2001: 270).¹ And while we do not have one single statement on the substance of this program, a close reading of his policy writings, especially during the interwar period, reveals a blueprint for such a plan. Keynes specifically endorsed labor-demand targeting policies in the form of direct job creation for the unemployed that would be implemented irrespective of the phase of the business cycle. While it is well known that he often spoke of public works, they are incorrectly identified with the Keynesian "depression solution" (as in Krugman 1999). Indeed, there are important theoretical reasons why public works are required even when the economy operates near maximum capacity. Re-examining the role of public works suggests that a permanent fiscal policy of direct job creation or, as Keynes referred to it, "on-the-spot" employment open to all ready, willing, and able to work individuals, is the missing Keynes Plan.

To make its case, the paper proceeds as follows. The next section revisits how Keynes's revolutionary theory of effective demand differs from contemporary aggregate demand theory and explains why fixing the point of effective demand at full employment is not possible. Section 3 examines how a policy of public works circumvents this problem at all stages of the business cycle and presents the three main theoretical reasons why they are superior to aggregate demand management policies in the short and long run. Section 4 adds methodological support to this argument—it evaluates

¹ The first Keynes Plan is the proposal for an international clearing union for the management of international currencies after the Second World War.

the Keynesian method of “plugging the gap” which is distinctly different from modern output gap analysis. Keynes’s concern with closing the labor demand gap is evident in his measurement of full employment output in terms of labor units. He had important theoretical objections to calculations of potential output in terms of real or current prices, which he called “impostor[s]” (Keynes 1980: 72). Because of the fundamentally flawed nature of such measures, all theoretical work (mainstream or otherwise) that attempts to close the gap between current and potential output today is inconsistent with his method. The profession has paid little attention to this methodological point, which bolsters the case for a permanent policy of employing workers at the margin. Finally, Section 5 identifies the modern theoretical contributions and policy applications that are in the spirit of Keynes’s own policy writings and suggests future research directions for social economists. Building on this work can go a long way to setting fiscal policy straight and formulating genuine Keynesian proposals for full employment and economic stability.

Before we present the argument, it is important to reflect on why revisiting Keynes’s work is so important now. First, for Keynes, the main purpose of economic policy was to solve the “real problem, fundamental yet essentially simple . . . [namely] to provide employment for everyone” (Keynes 1980: 267)—an objective largely abandoned across the theoretical spectrum. He found early notions of the natural rate of unemployment (now a hallmark of mainstream aggregate demand models) to be particularly objectionable (Keynes 1972: 90–92). Regrettably, even outside the mainstream, there are many economists who do not consider the goal of finding employment for everyone operationally possible and tacitly accept some level of unemployment as “natural” (see Goldberg *et al.* 2007).² This is partly due to the fundamental misidentification of the Keynesian policy response with the aggregate demand solution to unemployment that, as this paper will show, is incapable of securing genuine full employment. In other words, the current Keynesian revival will likely expire quickly, if economists and policy makers rely on the familiar pump priming policies that produce jobless recoveries. Demonstrating that Keynes’s policy solution was not one of indiscriminate aggregate demand management, but one of “on-the-spot employment” is the first step to setting fiscal policy straight.

2 The definitions of full employment by progressive economists cited in this survey range from a condition where the official unemployment rate is 4% to one between 1% and 2% (Goldberg *et al.* 2007). As this paper will show later, Keynes himself had a much tighter definition consistent with less than 1% unemployment rate (more below).

Additionally, as we reorient fiscal policy, it is important to remember that Keynes had a fundamentally humanistic socio-economic approach to economic policy rooted in the Humean notion that the wealth of a nation rests within its labor force (Kregel 2008). This is evident not only in his theoretical contributions and policy proposals, but also (as already suggested) in his method for calculating the level of full employment output. Modern policy must embrace this vision and recognize that a key requirement in the process of social provisioning is the need for work (O’Boyle 1994) and, in a monetary production economy, it is the need for paid work in particular (Darity 1999).³

Finally, Keynes’s permanent “on-the-spot” job creation program is much more than a policy for securing true full employment—it is also a powerful tool for socio-economic change and transformation. As Keynes presciently cautioned policy makers in the House of Lords, one should not confuse the grave economic and unemployment problems of the Depression era with the task that lay ahead, namely to maintain a fully-employed and peaceful economy in an era of prosperity:

Beyond the immediate post-war period . . . the economic problems of the day [that will] perplex us, will lie in solving the problems of an era of material abundance . . . it is not any fear of a failure of physical productivity to provide adequate material standard of life that fills me with foreboding. The real problems of the future are . . . the profound moral and social problems of how to organize material abundance to yield up the fruits of a good life. (Keynes 1980: 261)

Similarly, the present crisis beckons us to devise clever and viable stabilization programs that generate full employment both in the short and long run in a manner that specifically addresses individuals’ and communities’ pressing needs in their quest for social provisioning.

2. HOW EFFECTIVE DEMAND IS DIFFERENT FROM AGGREGATE DEMAND AND WHY FIXING IT AT FULL EMPLOYMENT IS NO EASY TASK

To set fiscal policy on the right track, we must first recall that Keynes’s revolutionary contribution was the theory of effective demand, which is fundamentally different from what has become known as the theory of

³ This claim does not minimize the importance of unpaid work or prioritize one over the other. Rather, it reflects that paid work is a necessary condition for social provisioning in a money-using capitalist economy. For a detailed discussion on the social meaning of work, both paid and unpaid, see Figart and Mutari (2007).

aggregate demand. The latter is the theory of boosting current expenditures (private or public) to secure some numerical target for output (measured in current or constant prices). The employment level does not explicitly enter this type of GDP analysis, since employment is determined in the labor market by supply and demand forces. Keynes by contrast began his theory by revealing the logical inconsistencies in the labor supply curve concept, and by rejecting the labor market analysis altogether. He then illustrated why the level of employment depended, in all cases, not on the level of aggregate demand, but on the point of effective demand. The latter is given by the cross-section of the aggregate supply price and the aggregate demand price of output from employing N number of people, both of which are defined in terms of the future (or expected) proceeds that will validate the entrepreneurs' decisions to produce and employ N number of people today. These functions cannot be found in traditional textbook models.

For Keynes, it was the psychology of the community and expectations that guided the level of spending and investment in the aggregate. By examining the socially-determined subjective and objective factors that influenced consumption and investment decisions, Keynes illustrated how and why private sector demand was chronically incapable of attaining and maintaining full employment. He, therefore, concluded that it was the job of public policy to “establish a closer approximation of full employment as nearly as is practicable” (Keynes 1964 [1936]: 378–379). Because of the confusion between aggregate and effective demand, his conclusion has largely been interpreted to mean that, if private sector spending is not high enough to guarantee full employment, government spending can rise to do the job. Yet Keynes was very careful to explain why boosting aggregate demand would not guarantee full employment. He did argue that increasing money expenditures in severe slumps will improve effective demand, but from 1937 onward, he argued compellingly that it would not guarantee the desired full employment level of output—a goal that must not be abandoned near full capacity.

Since the level of employment is given by the point of effective demand irrespective of the phase of the business cycle, to move and fix it at its full employment level is no easy task. Attempting to reduce the supply price of output by lowering wages is counterproductive, because employers are not guaranteed that the additional output will be sold, even if it could be produced at a lower cost, and will likely reduce overall employment in the face of falling demand. Thus, Keynes considered reducing wages to be a “method [that] is socially disastrous in the process and socially unjust in the result” (Keynes 1981a: 426). Policy makers should work on the demand side instead. Influencing the independent factors that underpin the demand price

of output, however, is tricky. Those factors are the marginal propensity to consume (*mpc*), the marginal efficiency of money (*mem*), and the marginal efficiency of capital (*mec*).

To move the point of effective demand, governments can try one of three things. They may implement income redistribution schemes that favor individuals with higher marginal propensities to consume (*mpc*) to individuals with higher propensities to save, but since the *mpc* is not under the direct control of government, such a policy will have its limitations. They can also reduce the interest rate (i.e., the marginal efficiency of money, *mem*) in hope of encouraging more borrowing by investors. Fine-tuning the interest rate, however, in the face of depressed expectation, may prove to be like “pushing on a string” and will be especially ineffective when interest rates are already close to zero. Finally, they can attempt to boost expected profitability from investment (*mec*) by increasing total current money expenditures through aggregate demand management policies. These stimuli will have some effect during recessions, because the rise in government spending when private demand is falling would partially validate past expenditures by entrepreneurs and would help soften the business cycle. But even very aggressive aggregate demand management policies will be slow to reverse the decline in employment, as evident in the current crisis. This is because, in a monetary production economy, aggregate demand policies may simply generate more demand for non-reproducible financial assets such as money, or what Hahn had called “non-employment inducing demand” (Hahn 1977: 39, quoted in Davidson 2007: 52).

In other words, government spending can be viewed as filling “the cash boxes of private entrepreneurs” (Kregel 2008), but how large an injection of liquidity is needed to induce those investors to start employing is difficult to gauge. While aggregate demand will increase the amount of liquid assets in the system, it may not be able to expediently shift individual preference away from holding them. This is because money is “a bottomless sink of purchasing power . . . [and] there is no value for it at which demand [for it] is diverted . . . into a demand for other things” (Keynes 1964 [1936]: 231). The trouble with filling investors’ cash boxes as a policy for full employment rests with the state of expectations, which may or may not improve fast enough with the provision of liquid financial assets. And once they improve, they may not improve sufficiently to induce entrepreneurs to offer employment to all who want it. In this sense, as Post Keynesians and Institutionalists have continually emphasized, in a money-using economy, unemployment is always and everywhere a monetary phenomenon.

These are some of the theoretical reasons why plugging the demand gap as it is discussed today is not the leading approach for securing full employment in Keynes's own analysis. Instead, he had a very specific view of the shape and form fiscal policy must take.

3. PUBLIC WORKS AND THEIR ADVANTAGES OVER PUMP PRIMING

Keynes did not propose just any kind of fiscal policy; in all of his academic writings, policy deliberations, correspondence, and media appearances, he stressed one proposal for shaping England's employment policy—namely a permanent program of public works that is implemented with care and planning as a long-run solution to the problems of unemployment and instability. In the original outline of the *General Theory*, Keynes had dedicated an entire chapter to public works alone.⁴ And while contemporary fiscal policies try to stabilize consumption and private investment, Keynes specifically objected to such attempts as policies for full employment.⁵ Keynes himself argued that, in the final version of the *General Theory*, he had devoted the longest chapter precisely to pointing out the lack of foresight and the mistakes in investment, which formed “an important part of the basis of my conclusion that investment is a matter which cannot be left solely to private decision”⁶ (Keynes 1979: 232). A planned program of public works is precisely that policy to deal with the unemployment problem that emerges from volatile investment, inflated profits, and mistaken expectations (Keynes 1982: 388). The long-term program of public works is essentially Keynes's “proposal . . . for the control of investment” (Keynes 1983: 435).

When Keynes delivered a series of lectures in the US entitled “Economic Analysis of Unemployment” and chaired the Harris Foundation Roundtable on the question “Is it possible for Governments and Central banks to do anything on purpose to remedy unemployment?,” he stressed public works as the first policy tool of choice. Curiously, he concluded that the difficulties

4 One must wonder what kind of book the *General Theory* would have been, were it not for Roy Harrod's insistence that Keynes considerably revise and reorganize it.

5 See his correspondence with Meade (Keynes 1980: 318–323). This would rule out most modern tax rebates, consumption subsidies, transfer payments, as well as various proposals for social dividends or basic income guarantees.

6 Keynes himself recognized that the final version of the *General Theory* did not produce a precise statement of his preferred policy proposals: “I am afraid that the readers . . . will not get a very clear impression of what *I say* or of what I advocate even in the last chapter of my book” (Keynes 1979: 232, original emphasis).

with and objections to public works, raised in the deliberations of the Foundation, were “practical rather than theoretical” (Keynes 1981b: 529).

Nevertheless, Keynes advocated public works for three specific theoretical reasons. First public works have the highest employment-creation effects of any policy—Keynes’s cardinal measure for fiscal policy effectiveness. Second, they circumvent all of the problems with managing the above-mentioned independent factors, and can fix the point of effective demand at full employment. Finally, they can deal with structural unemployment directly, and do not have the inflationary and income distribution problems of aggregate demand management policies.

3.1. How to Attain Full Employment

Keynes’s writings in the interwar period, his short pamphlet *How to Pay for the War* (1972), and a large part of his work on postwar policy clarify his position on public works, not just as a depression solution, but also as a policy for full employment near the peak of the cycle. Additionally, they set out his method of analysis, which I will argue later is distinctly different from the modern method of plugging the output gap.

Keynes’s approach is rooted in his firm conviction that there are grave consequences from unemployment. He calls the problem “an evil that is in the homes of the unemployed themselves . . . an infection illness, [which] multiplies itself and spreads from house to house unless something is done to check it” (Keynes, 1981a: 824) because every person who is unemployed puts another one out of work, due to losses in purchasing power. But there are other problems with the industrial system—two of the worst ones are the casual labor of workers intermittently employed, supplemented by “sweated home-work on the part of the women” (Keynes 1983: 174). In other words, the objective, for Keynes, is to create not only jobs, but stable and good jobs. For these reasons he championed the Liberal Program of Lloyd George as the policy that “will bring back into employment not only the men [sic] directly employed on its schemes, but as many men again indirectly who will be drawn back by the purchasing power of the men directly employed” (Keynes 1981a: 825).

Public works are essentially a policy of employing workers at the margin. They offer employment to those who cannot find it otherwise and deal with the unemployment problem in a direct and deliberate manner. For Keynes, the first objective of policy was to hire the unemployed by whatever means possible. Once full employment has been reached, policy must plan, redesign,

and substitute expenditures to make these public works even more effective and successful and to integrate them into a broader agenda for stable long-term public investment. Thus, it is most appropriate to call Keynes's approach to full employment an "on-the-spot" approach. As Keynes himself had argued, a "man-year of employment on the spot" can be done immediately without any obstacles (Keynes 1982: 171). In the MacMillan Committee deliberations, which outline in great detail his thinking on the primary and secondary employment effects of public works, he reasoned that it was immaterial whether the rate of return on public works was 5%, 3%, or 1%; the first important result was the reduction in unemployment and the second was that some yield was better than no yield at all (Keynes 1981b: 174–175).

Although Keynes did not advocate pyramid building or burying jars with money for the unemployed to dig out, he did provide such examples of public works largely to emphasize the importance of "on-the-spot" employment programs. In his writings on the issue of postwar employment policy, he kept impressing upon the Treasury and the general public the importance of this direct approach to job creation:

Tell those concerned that we shall need building industry of a mission operatives directly employed—well and good, it can be arranged. Tell them that we shall need a million-and-a-half or two million—again well and good. But we must let them have in good time some reasonably accurate idea of the target. For if the building industry is to expand in an orderly fashion, it must have some assurance of continuing employment for the larger labour force. (Keynes 1980: 268)

The benefits of public works are, first and foremost, ascertained by their employment-creation effects. Next they must be targeted to particular areas and industries. Once they produce full employment, "there can be only one object in the economy, namely to substitute some other, better, and wiser piece of expenditure" for individual projects (Keynes 1982: 146), i.e., to redesign those public works, as the need arises. Keynes of course emphasized that there was never any dearth of useful things to do in recessions and in expansions, and that whatever the unemployed did was always better than not doing anything at all.

It is important to stress again that he saw nothing natural about any level of unemployment. Instead, he argued that, since a genuine full-employment economy with virtually no unemployed people had been achieved once, it could be achieved again. The job was to produce "a reduction of the unemployed to the sort of level we are experiencing in wartime, that is to say, an unemployed level of 120,000 . . . or less than 1 per cent unemployed at the

present time” (Keynes 1980: 303). Thus, policy makers had a responsibility to ensure that “everything that could humanly be done has been done by the state” (Keynes 1980: 303).

Keynes believed that “it is easy to employ 80 to 90 percent of the national resources . . . but to employ 95 to 100 percent is a different task altogether” (Keynes 1982: 409). Care and management in planning are needed near full capacity. To employ that 95 to 100% of national resources, including labor, we would be “more in need . . . of a rightly distributed demand than of greater aggregate demand” (Keynes 1982: 395). Keynes claimed that “anything that we can actually *do* we can afford. Once done it is *there*. Nothing can take it away from us” (Keynes 1980: 270, original emphasis). With policies that sustain the unemployed via unemployment insurance, we are not creating anything, so we “have nothing to show for it except more men on the dole” (Keynes 1982: 149).

Keynes was especially unhappy with the argument that unemployment insurance is an appropriate safety net for the unemployed. “Every working person,” he argued, “is worth more than the dole he gets . . . An honest day’s work for a fair wage waiting for every honest worker—that is safety” (Keynes 1981a: 825). He continued:

There are things to be done; there are men to do them. Why not put the two together? Why not put the men to work? This country is not a finished proposition—far from it. It is crazy to sit puffing one’s pipe and telling the unemployed that it would be most unsafe to find them any work. (Keynes 1981a: 825)

So while the primary objective of policy is to offer employment at the margin, Keynes never believed that public employment schemes could not be executed in a well-designed manner to allow the workers to perform useful tasks. Could we not use more universities, local schools, recreation areas, theaters, museums, galleries, cafes, or dance halls, Keynes asked. There were, of course, many other pressing needs to address at the time: public works could increase housing, improve the transportation infrastructure, and “replan the environment of our daily life . . . Not only shall we come to possess these excellent things, but . . . we can hope to keep employment good for many years to come” (Keynes 1980: 270).

Some projects, such as large scale housing programs, would require careful planning and organization, but some would be swift and inexpensive: “[T]o preserve the national domain for exercise and recreation and the enjoyment and contemplation of nature the cliffs and coastline of the country . . . that requires nothing more than the decision to act” (Keynes 1980: 269).

This is the essence of a good policy: it is driven by the intellectual conviction that full employment is indispensable and attainable, supported by policy makers committed to act boldly and deliberately, and designed with the imagination and cleverness to create projects that benefit the public at large.

3.2. How to Maintain Full Employment

Not only did Keynes believe that we can cure unemployment completely, but he was convinced that it can be done over the long run as well. Very early on, he recognized that to maintain full employment “we must work on a long term programme” (Keynes 1980: 269), where public works play a crucial role in those times when the private sector nears full capacity:

My argument is that if public works are stopped, particularly at a time when private enterprise is stopping from temporary overcapacity and is therefore not in a position to expand, then private saving can do any amount of harm. You remember what I said—every pound saved puts a man [*sic*] out of work. (Keynes 1982: 150)

The objective and subjective factors that determine private consumption illustrate that the private sector would not expend its entire earned income. And so “it isn’t really the business,” Keynes argued, “of private individuals to spend more than they naturally would, any more than it is their business to provide for the unemployed by private charity” (Keynes 1982: 151). Furthermore, the volatile nature of investor expectations ensures that full employment, if attained, cannot be sustained. Public works and a sizeable socialization of investment were the answer:

If two-thirds or three-quarters of total investment is carried out or can be influenced by public or semipublic bodies, a long-term program of a stable character should be capable of reducing the potential range of fluctuation. . . (Keynes 1980: 322)

The provision of full employment, he continued, should be “done by the organized community as a whole—that is by public authorities” (Keynes 1982: 151).

As noted above, discontinuation of public works in conditions of private-sector overcapacity is undesirable, as the latter cannot expand to absorb those individuals who were laid off from the public sector. This was well understood by Keynes’s contemporaries in the context of maintaining full

employment after the Second World War. Meade, for example, echoed this sentiment:

[T]here is little understanding . . . that the immediate postwar unemployment that may result from demobilization is one that cannot suitably be cured by general expansive policies. It requires, of course, rather policies of retraining, labor transference and general adjustment to peacetime uses. (Meade in Keynes 1980: 314)

In other words, what is needed is not to discontinue public works, but to transform them from military to peacetime industry while simultaneously retraining workers for the needs of civilian production. While industry restructuring may take a while to do, Keynes did not believe that the maintenance of full employment was a formidable task. The required remedies would be on a much smaller scale than critics suggested, as it was easier to “prevent the ball rolling than would be required to stop it rolling once it started” (Keynes 1980: 316). In other words, it was an easier task to prevent unemployment from developing than to eliminate it once it had developed. This is why Keynes advocated for a permanent program of public works and often chided his contemporaries for not fully grasping their role both as a short- and long-term solution to economic stability. In his earlier correspondence with Meade, for example, he once wrote:

I think you lay too much stress on cure and too little on prevention. It is quite true that a fluctuating volume of public works at short notice is a clumsy form of cure and not likely to be completely successful. On the other hand, if the bulk of investment is under public or semi-public control and we go in for a stable long-term programme, serious fluctuations are enormously less likely to occur. (Keynes 1980: 326)

Thus, by worrying about implementation difficulties in the short term, Meade had failed to see the important preventative benefits of large-scale, long-term public employment schemes. Public works circumvent the problems of managing volatile private spending and investment to produce full employment, but they also impart stability on the system in the long run and must, therefore, be maintained once full employment is reached.

But to deal with the implementation problems, an industrial board was needed, as well as formal capital budgeting, and most importantly—commitment, planning, and imagination—“and these [schemes] can be

ambitious and glorious as the minds of our engineers and architects and social planners can conceive” (Keynes 1981a: 268). Plans must be big, significant but not hasty. Rome, after all, was not built in a day. The state would, in essence, serve the purpose of “entrepreneur-in chef” (Keynes 1981a: 324). In a 1937 *Times* article, Keynes reflected on how to avoid a slump after the war and maintain a steady level of employment. He called for the appointment of “a board of public investment to prepare sound schemes against the time that they are needed . . . If we wait until the crisis is upon us we shall of course be too late” (Keynes 1982: 394).

3.3. Problems with Aggregate Demand Management

Although, it is during severe slumps that we find the strongest support for broad and aggressive aggregate demand management policies, Keynes still believed that different aggregate demand policies will have different employment-creation effects. For a swift reduction in unemployment, only targeted demand via public works would suffice. Thus, even in severe slumps, Keynes did not advocate everything-but-the-kitchen-sink fiscal policy, as it is practiced today. Instead, he specifically argued for large-scale public capital improvements.

The first task for policy is to generate enough demand for labor to provide employment for everyone. Having prepared a blueprint for such a program, the next task is to implement these projects at a pace neither too slow to allow unemployment to develop nor too fast to generate inflation (Keynes 1981a: 267). But with the aggregate demand approach, that is with “a general increase of purchasing power,” the policy maker is not guaranteed specific results as it “is not equally efficacious in all circumstances” (Keynes 1980: 311). Specifically, aggregate demand management policies have three shortcomings that are most evident once the economy approaches full employment—they create inflationary pressures, produce more inequitable income distribution, and fail to deal with structural unemployment.

Suppose that we are in an expansion, private spending and investment are strong, and the economy is approaching full employment. Any additional money expenditures will boost the *mec*, but will not have the same employment-creation effects as in recessions. This is due to the structure of the economy. Near full employment, the *mec* may be quite high, but aggregate demand will likely increase it further in those industries that have already been saturated and are producing at full capacity. In this case, as Keynes explained in the *General Theory*, effective demand will spend itself

“partly in affecting output and partly in affecting price,” depending on the respective two elasticities:

Some products take time to produce, so that it is practically impossible to increase the supply for them quickly. Thus, if additional demand is directed to them without notice, they will show low elasticity of employment. (Keynes 1964 [1936]: 285)

Affecting the *mec* near full employment via aggregate demand management will not yield the same employment-creation effects and will likely generate inflationary pressures in industries with low elasticity of employment. Because the structure of the economy distributes the increase in aggregate effective demand unevenly, a boost in total current expenditures will not create employment opportunities for those who are structurally unemployed, and will likely increase prices in industries that are operating near maximum capacity. The first problem with boosting aggregate demand in expansions is that it causes prices to rise *before* it produces full employment. The second is that, near full employment, it also creates more unequal income distribution between capital and labor, favoring the latter. Keynes argued:

[I]f the increase in demand is directed to products with a relatively low elasticity of employment, a larger proportion of it will go to swell the incomes of entrepreneurs and a smaller proportion to swell the incomes of wage earners and other price cost factors. (Keynes 1964 [1936]: 287)

For these reasons, in order to guarantee full employment in expansions, not more demand, but more appropriately distributed demand, is needed.

For the ways in which we suppose the increase in aggregate demand to be distributed between different commodities may considerably influence the volume of employment. If for example the increased demand is largely directed towards products which have a high elasticity of employment, the aggregate increase in employment will be greater than if it is largely directed towards products which have low elasticity of employment.

In the same way, employment may fall off without there having been any change in aggregate demand, if the direction of demand is changed in favor of products having a relatively low elasticity of employment. (Keynes 1964 [1936]: 286)

Although broad-based aggregate demand stimuli are helpful in depressions, to yield maximum employment creation, it is necessary to target demand to the unemployed directly via public works. The closer we are to

full employment, the more troublesome it becomes to secure any further given increase in employment via an increase in aggregate real income (Keynes 1964 [1936]: 118). One cannot conclude from this that the goal of full employment is abandoned once we approach it, as it is done by mainstream economists, who define full employment as the noninflationary level of unemployment (i.e., the remaining frictional and structural unemployment). For Keynes, even in expansions, the goal of full employment is still important. He was especially concerned with the particular problem of structural unemployment, which should “be treated as something to be handled forcibly and not something to be defeatist about” (Keynes 1980: 357). To deal with structural unemployment, the government can redirect its public works to those “special areas” with the highest remaining unemployment. In several interwar Labor Ministry cabinet papers, Keynes and the government had proposed that one way to deal with acute labor shortages in some areas and surpluses in others, was to take “the contract to the men, rather than the men to the contract” (Brown 1936). This is another key aspect of Keynes’s “on-the-spot” approach to full employment. In his correspondence with Meade, who initially favored fiscal policy as a stop gap measure, Keynes kept stressing the role of public works as a stable long-run solution, finally convincing Meade that “the problem of bringing the work to the men . . . should be regarded as a continuing one” (Meade in Keynes 1980: 331).

Even if inflationary pressures developed near full capacity, unemployment should not be used to alleviate them, as it is stipulated in mainstream theory and advocated by many of Keynes’s contemporaries (Keynes himself called such policies the “downfall of our present system of democratic government” (Keynes 1980: 374)). Keynes suggested, instead, that localities postpone new projects as long as they can be reasonably held back (Peden 1980: 1), but he did not advocate shutting down public works or laying off workers. Instead, it may be necessary to retard certain types of investment in the center and develop others in the periphery of economic activity. This is why Keynes advocated public works for the “special” or “distressed areas”—a regional approach to maintaining full employment that has not received sufficient recognition.⁷

Keynes stressed that public works must provide good jobs over the long run, but they must also be implemented spontaneously, should

⁷ Keynes’s discussion of how to close an inflationary gap is beyond the scope of this paper, but he was very clear that the solution rested on increasing thrift (potentially through schemes for partial deferment of payments) rather than layoffs.

unemployment develop unexpectedly in certain regions: “To make sure of good employment, we must have ready and ample programme of re-stocking and of development over a wide field, industrial, engineering, transport, and agricultural” (Keynes 1980: 267). But “to remedy the conditions of the distressed areas, *ad hoc* measures are necessary” (Keynes 1982: 385). Keynes was critical of the government’s reluctance to implement impromptu measures that were recommended by those most familiar with the problem of special-area unemployment (Keynes 1982: 385).

The needs of the community and the structural composition of the economic sectors would determine the location and type of public works. In the 1930s, there were few statistical sources that could guide policy design and implementation and Keynes was very vocal about the need for better statistics. It is in the discussions of the output gap measurements that we can fully appreciate the difference between his own method for producing full employment and modern calls to fill the gap between current and potential output.

4. CLOSING THE OUTPUT GAP IS NOT KEYNES’S METHOD FOR ACHIEVING FULL EMPLOYMENT

Closing the output gap is an approach to full employment used by many mainstream and heterodox economists. When Keynes spoke of the demand gap, he emphasized the shortfall in the demand for labor, not the demand for output. This is not an insignificant distinction. His methodology, which underpins government budgeting for closing the labor demand gap, is laid out in one of his chapters of the Treasury’s Central Statistical Office report on the “Probable Range of the Post-War National Income” (Keynes 1980: 334–346), as well as in the statistical appendix of a memorandum on national income and expenditure after the war (Keynes 1980: 289–298). These papers produce estimates of national income at factor costs and of the level of current spending as a function of labor and its pay allowances. Keynes’s measure of income and output was also introduced in the *General Theory* in his discussion of the choice of units. Whenever he spoke of an increase in expenditures that would produce a certain percentage increase in output, this increase was measured in wage units. In the deliberations about budgetary planning after the war, Keynes, in collaboration with Sir Richard Stone, offered his estimates of the budgetary expenditures necessary to sustain full employment. All calculations were based on some assumptions about the number of men and women that were employed or needed work. The goal was to outline a method for measuring current production as a function of

employment, labor productivity, and factor prices. In other words, *any output gap that had to be plugged was measured in terms of the number of unemployed men and women who needed work* (Keynes 1980: 280–307, emphasis added). In fact, he explicitly objected to measuring the demand gap in term of current prices (more below). Let us briefly recall the textbook method for alleviating unemployment by closing the output gap.

4.1. Modern Output Gap Approach

The modern approach is based on various incarnations of Okun’s law, which posit a statistical relationship between the rate of growth of output and unemployment (Okun 1962). The law states that a 1% increase in unemployment would produce approximately a 3% decline in GDP growth. This relationship has been flipped and used as a policy guide suggesting that, to reduce unemployment, the rate of growth in current output must be greater than the rate of growth in potential output. In other words, if policy manages to stimulate growth at a rate faster than the rate of growth of potential GDP, unemployment can be reduced and possibly eliminated. This approach has given rise to a wide range of pro-growth policies to close the output gap.⁸ Paradoxically, it is precisely these policies that end up generating the dreaded inflationary pressures. As Keynes had warned, more aggregate demand tends to generate price pressures in certain sectors before output reaches its full employment level. Consequently, the whole enterprise of achieving full employment via aggregate demand management is abandoned in the name of maintaining price stability.

4.2. Keynes’s Demand Gap Approach

Keynes was also interested in closing the gap, but he measured it in labor units. Public investment is a direct approach to reducing unemployment, which is one reason why he emphasized the primary employment effects of public works. When we add the secondary employment effects from the multiplier, we can estimate how much employment from public works would be necessary to close the total labor demand gap. In Keynes’s estimates of the required increase in national income and expenditures to produce full employment, the “calculations are in terms of equivalent men ... and

⁸ Note that Arthur Okun himself cautioned about the weak relationship between the two variables.

women, if they are unemployed. . .” (Keynes 1980: 298). He did not talk about deficient demand for output, but of deficient demand for labor (e.g., see the discussions on postwar spending to maintain full employment (Keynes 1980: 277–307)). This lends methodological support to the present argument that Keynes’s approach to full employment was one of targeted labor demand, whereby policy targets the unemployed directly and not some generalized level of output or economic activity.

Keynes flatly rejected calculations of potential output at current prices, as they are done today. Although he supported the important work of Mr. Colin Clark (the father of British national statistics), Keynes vigorously critiqued his calculations of gross national income, which produced estimates of the potential rate of current consumption and investment measured at market prices. This method was unacceptable to Keynes because such estimates were impossible to produce over a period of time, since they would depend on the “technical considerations and the precise character of the plant in use”; such measures of potential output have useful meaning only over an “instantaneous or very brief period” (Keynes 1980: 71). Keynes saw no practical purpose for these estimates, since the economy was an evolving system, where the character of consumption and investment changed continuously. Potential output is even more misleading as a concept for the long run and Keynes called it an “impostor” (Keynes 1980: 72). Measures that only look at the market value of consumption and investment goods do not account for the fact that shifts in consumption and investment may involve loss of capital or labor. In fact, changing the structure of production and diverting resources from one use to another is the key reason why potential output cannot be measured over the long run or even over a very short accounting period. Most importantly, the loss of labor from such a diversion has to be treated separately, which is why Keynes’s national output definition is in terms of man-hours that might be worked (Keynes 1980: 73).

Modern output gap analysis is wholly inconsistent with Keynes’s method for producing full employment. Any attempt at integration of these approaches must either redefine potential output in terms of wage units and labor hours, or unemployment must be addressed directly and independently of the definition of potential output. “Our income is only another name for what we produce when we are employed,” Keynes (1982: 156) argued. Keynes’s method is also useful because potential output is not limited to hiring all those who are presently unemployed. For him, the expansion of output would depend on the “greater intensity of work by the existing labor force and on the increase of the labor force from the ranks of the unemployed and from those not previously in the labor market”

(Keynes 1981b: 52). In other words, Keynes has a dynamic view of potential output that fluctuates not just with the unemployed, but also with those who may be currently outside the labor market.

Attempting to indiscriminately pump large quantities of government spending into the economy is a wrong-headed approach to full employment. The only sense in which we can speak about plugging the gap is to speak of plugging the *demand gap for labor* both at the bottom of the cycle and near its peak, and for Keynes this was done directly via public works. To reinstate the link between fiscal policy and full employment, it is necessary to understand and embrace Keynes's methodology of measuring output, something that has been emphasized little by heterodox economists.

5. RESTORING THE KEYNESIAN “ON-THE-SPOT” EMPLOYMENT APPROACH IN THEORY AND PRACTICE

Although Keynes omitted the chapter on public works from the final version of the *General Theory*, the theoretical groundwork, his method of analysis, and many prescient criticisms of aggregate demand management are present in the book. A comprehensive reading of his policy writings, however, reveals the blueprint presented here for a permanent on-the-spot employment program that will attain and maintain full employment at all stages of the business cycle. Curiously, most orthodox and heterodox economists have missed this policy recipe. One reason for the omission is the hydraulic reinterpretation of his work by the Hicks–Hansen–Samuelson models, which stress aggregate current expenditures and not Keynes's effective demand concept. Heterodox economists rightfully fault the neoclassical synthesis for the failed Keynesian revolution, but they have not been immune to the pitfalls of aggregate demand thinking either. Most progressive economists, even as they disagree with the textbook interpretation of Keynes's theory, continue to advocate some form of pro-growth/pro-investment aggregate demand management without explicitly favoring permanent public sector direct job creation programs for all individuals who are ready, willing and able to work. Perhaps heterodox economists have been led astray because, as already discussed, Keynes did not have a single explicit statement on policy. More importantly however, in this author's view, they have generally (and erroneously) treated the choice of units in the *General Theory* as a technicality. Thus, some theoretical work on the choice of units notwithstanding (e.g., Carabelli 1992), most heterodox economist have adopted the problematic GDP measure in their analyses and, unwittingly, the Okun method of priming the pump to close the output gap. Once the theoretical

import of the choice of units for Keynes is fully grasped, it becomes clear why he did not endorse just any kind of spending but, specifically, spending on putting men and women directly to work.

5.1. Theoretical Work on Direct Job Creation after Keynes

That being said, there are several contemporary proposals that are entirely consistent with Keynes's own approach, even though the theoretical and methodological connections between the two have not been elaborated sufficiently. These proposals include earlier versions of the Employer of Last Resort (ELR) program (Beveridge 1944; Pierson 1964) and their modern counterparts (Minsky 1986; Wray 1998), as well as the proposals for Buffer Stock Employment (BSE) (Mitchell 1998), the Job Guarantee (JG), and Public Service Employment (PSE) (Gordon 1997; Harvey 1989). This work has begun to develop some of Keynes's explicit concerns with social justice and macroeconomic stabilization through full employment. For example, ELR and BSE proposals stress certain macroeconomic benefits of direct job creation, such as their countercyclical mechanism, the wage anchor they provide for the economy as a whole, their capacity to maintain and enhance human capital through training, education and work, their ability to alleviate inflationary and deflationary pressures from private sector demand, and their important provision of much needed investments that are not normally undertaken by the private sector (Mitchell 1998; Wray 1998). Additionally, all of these programs emphasize the principles of social justice and specifically the right to employment as a fundamental human right, as stipulated by the *Universal Declaration of Human Rights* 1948 (e.g., Harvey 1989; Wray and Forstater 2004). There is also research that evaluates the relative macroeconomic merits of job guarantee programs vis-à-vis specific aggregate demand management policies that have also been developed on the principles of social justice, such as the basic income guarantee proposals (Tcherneva 2006).

To reorient economic policy from the detached aggregate demand approach to the one suggested by Keynes, which explicitly addresses the needs of individuals and communities, several things are required. First is a commitment to the theoretical and methodological reasons for abandoning the aggregate demand model in favor of a permanent "on-the-spot" employment program as a policy for genuine full employment over the long run. Second is a careful investigation of the macroeconomic aspects and socio-economic merits of direct job creation programs around the world,

even if they are not universal and permanent. Some work has already been done in the case of the US New Deal (Harvey 1989), Argentina (Tcherneva and Wray 2005), India (Hirway *et al.* 2008), and South Africa (Antonopoulos 2009). Third, and perhaps most important, is a recognition that job guarantees are much more than programs for securing the right to work and stabilizing the business cycle: they are also policies for social change and transformation (Tcherneva 2008). Preliminary work in the case of Argentina, for example, suggests that the access to work by poor women can redress some important causes of gender inequality (Tcherneva 2008). In this respect, public works can provide opportunities for education, on-the-job training, community involvement, capacity building, and empowerment to those who are marginalized, irrespective of race, class or gender. Public works can be used as programs for profound structural change and economic transformation. Proposals such as the Green Jobs Corps (Forstater 2004) suggest how public employment programs can serve as an institutional vehicle that delivers environmentally sustainable infrastructure and resource renewal in an organized and deliberate manner.

5.2. Reimagining the Social Economy

To paraphrase Keynes, even in the age of plenty, surely no country is a finished proposition. There are countless tasks to be done and many unemployed people who could do them. Various types of projects have already been proposed in the literature. In addition to the ones commonly invoked, such as reforestation, neighborhood cleanup, and infrastructure investment, there are others that take into account the specific needs of the different communities around the world and the skill level of the unemployed. Wray (1998), for example, has argued that the US can use great many low-income housing restoration engineers, public school classroom assistants, and environmental safety monitors. In the case of Australia, Mitchell (1998) has suggested large-scale urban renewal, dune stabilization, and river valley erosion programs. Antonopolous *et al.* (2010) have estimated that investments in the social sector, in early childhood education or home-based care for example, can generate 1.5 times as many jobs as investments in the “green” economy and twice the number of jobs that would be created from infrastructure investment. Forstater (2002) has forcefully argued that we must commit to Dr Martin Luther King, Jr.’s call for jobs for all that would be coupled with a plan for inner city renewal. Finally, one needs to look no further than the latest environmental disaster on the Gulf Coast to

immediately grasp the dire need for a citizen's brigade to clean up the beaches and a re-staffed Army Corps of Engineers and Coast Guard to restore the coastline and investigate, develop, and maintain the nation's environmental resources. Where there is a disaster, there must be a new "Marshall Plan" ready, where there is a long-term socio-economic need, there must be a planning board with a carefully designed program. Full employment should not be allowed to falter for lack of new projects, and cyclical changes in private sector employment should not be allowed to determine whether important public projects are undertaken. Indeed, it is crucial that a comprehensive full employment program is implemented as a permanent feature of fiscal policy, because if considered a "depression solution," it will not receive an objective assessment of its merits. As Keynes forewarned:

New social experiments will not get a fair opportunity to prove their worth, unless they can be introduced in times of normal prosperity. (Keynes 1981a: 327)

6. CONCLUSION

This paper has argued that fiscal policies that do not explicitly and directly target the unemployed cannot be genuinely called Keynesian, as they are incapable of attaining and maintaining full employment, much less guarantee good jobs for all. While Keynes did not provide one single and explicit statement of what such policies would look like, he developed a clear blueprint throughout all of his writings for a permanent "on-the-spot" employment program that is open to all. This blueprint can be used and developed for reimagining fiscal policy as one that not only employs workers at the margin but also mobilizes the human potential in achieving specific socio-economic objectives, such as inner-city development, environmental renewal, poverty alleviation, provisioning of essential social services, and others. Despite the varied applications of such programs, they must all be guided by the recognition that the real problem, fundamental yet essentially simple, is to provide employment for everyone. For this task too intellectual conviction and cleverness are required.

REFERENCES

- Antonopoulos, R. (2009) "Promoting Gender Equality through Stimulus Packages and Public Job Creation: Lessons Learned from South Africa's Expanded Public Works Programme," *Levy Economics Institute*, Public Policy Brief 101.

- Antonopoulos, R., Kim, K., Masterson, T. and Zacharias, A. (2010) "Why President Obama Should Care About 'Care': An Effective and Equitable Investment Strategy for Job Creation," *Levy Economics Institute, Public Policy Brief 108*.
- Beveridge, W.H. (1944) *Full Employment in a Free Society*, New York: W.W. Norton & Company, Inc.
- Brown, E. (1936) "Defense Programmes-Labor Issues Involved," Cabinet Paper 57. *Cabinet Office Paper Series 24*, Vol. 260.
- Carabelli, A.M. (1992) "Organic Interdependence and Keynes's Choice of Units in the *General Theory*," in B. Bateman and J. Davis (eds) *Keynes and Philosophy*, Aldershot, UK: Edward Elgar.
- Darity, W. Jr. (1999) "Who Loses from Unemployment," *Journal of Economic Issues* 33(2): 491–496.
- Davidson, P. (2007) *John Maynard Keynes*, London, UK: Macmillan.
- Figart, D. and Mutari, E. (2007) "Work: Its Social Meanings and Role in Provisioning," in J.B. Davis and W. Dolfsma (eds) *The Elgar Companion to Social Economics*, Northampton, MA: Edward Elgar.
- Forstater, M. (2002) "'Jobs for All': Another Dream of the Rev. Dr. Martin Luther King, Jr.," *Forum for Social Economics* 31(2): 45–53.
- Forstater, M. (2004) "Green Jobs: Addressing the Critical Issues Surrounding the Environment, Workplace and Employment," *International Journal of Environment, Workplace and Employment* 1(1): 53–61.
- Goldberg, G., Harvey, P. and Ginsburg, H. (2007) "A Survey of Full Employment Advocates," *Journal of Economic Issues* 41(4): 1161–1168.
- Gordon, W. (1997) "Job Assurance: The Job Guarantee Revisited," *Journal of Economic Issues* 31(3): 826–834.
- Harvey, P. (1989) *Securing the Right to Employment*, Princeton, NJ: Princeton University Press.
- Hirway, I., Saluja, M.R. and Yadav, B. (2008) "Analysing Multiplier Impact of NREGA Works Through Village SAM Modeling," *Economist for Full Employment Working Paper*.
- Keynes, J.M. (1964[1936]) *The General Theory of Employment, Interest, and Money*, New York: Harcourt-Brace & World, Inc.
- Keynes, J.M. (1972) *How to Pay for the War*. Volume IX of *Collected Works*, D. Moggridge (ed.), London, UK: Macmillan.
- Keynes, J.M. (1979) *The General Theory and After: A Supplement*. Volume XXIX of *Collected Works*, D. Moggridge (ed.), London, UK: Macmillan.
- Keynes, J.M. (1980) *Activities 1940–46. Shaping the Post-War World: Employment and Commodities*. Volume XXVII of *Collected Works*, D. Moggridge (ed.), London, UK: Macmillan.
- Keynes, J.M. (1981a) *Activities 1922–29. The Return to Gold and Industrial Policy: Part II*. Volume XIX of *Collected Works*, D. Moggridge (ed.), London, UK: Macmillan.
- Keynes, J.M. (1981b) *Activities 1929–31. Rethinking Employment and Unemployment Policies*. Volume XX of *Collected Works*, D. Moggridge (ed.), London, UK: Macmillan.
- Keynes, J.M. (1982) *Activities 1931–39. World Crises and Policies in Britain and America*. Volume XXI of *Collected Works*, D. Moggridge (ed.), London, UK: Macmillan.

- Keynes, J.M. (1983) *Economic Articles and Correspondence: Academic. Volume XI of Collected Works*, D. Moggridge (ed.), London, UK: Macmillan.
- Kregel, J.A. (2008) "The Continuing Policy Relevance of Keynes's General Theory," in M. Forstater and L.R. Wray (eds) *Keynes for the 21st Century: The Continuing Relevance of The General Theory*, London, UK: Macmillan.
- Krugman, P. (1999) *The Return of Depression Economics*, New York: W.W. Norton & Company, Inc.
- Minsky, H.P. (1986) *Stabilizing an Unstable Economy*, New Haven, CT: Yale University Press.
- Mitchell, W.F. (1998) "The Buffer Stock Employment Model and the NAIRU: The Path to Full Employment," *Journal of Economic Issues* 32 (June): 547–556.
- O'Boyle, E.J. (1994) "Homo Socio-Economicus: Foundational to Social Economics and the Social Economy," *Review of Social Economy* 52(3): 286–313.
- Okun, A. (1962) "Potential Output: Its Measurement and Significance," in *Proceedings of the Business and Economic Statistics Section, American Statistical Society*, Washington, DC: American Statistical Association.
- Peden, G.C. (1980) "Keynes, the Treasury and Unemployment in the Latter Nineteen-Thirties," *Oxford Economic Papers* 32(1): 1–18.
- Pierson, J.H.G. (1964) *Insuring Full Employment: A United States Policy for Domestic Prosperity and World Development*, New York: The Viking Press.
- Skidelsky, R. (2001) *John Maynard Keynes, Volume Three: Fighting for Britain 1937–1946*, London, UK: Macmillan.
- Tcherneva, P.R. (2006) "Universal Assurances in the Public Interest: Evaluating the Economic Viability of Basic Income and Job Guarantees," *International Journal of Environment, Workplace and Employment* 2(1): 69–88.
- Tcherneva, P.R. (2008) *The Promise of Fiscal Policy: Full Employment, Stability and Equity*, PhD Dissertation, University of Missouri-Kansas City.
- Tcherneva, P.R. and Wray, L.R. (2005) "Employer of Last Resort: A Case Study of Argentina's Jefes Program," *Center for Full Employment and Price Stability*, Working Paper 41.
- Wray, L.R. (1998) *Understanding Modern Money: The Key to Full Employment and Price Stability*, Northampton, MA: Edward Elgar.
- Wray, L.R. and Forstater, M. (2004) "Full Employment and Social Justice," in D. Champlin and J. Knoedler (eds) *The Institutionalist Tradition in Labor Economics*, Armonk, NY: M.E. Sharpe.