

FMM WORKING PAPER

No. 59 • October 2020 • Hans-Böckler-Stiftung

POLITICAL ASPECTS OF 'BUFFER STOCK' EMPLOYMENT: A RECONSIDERATION

Peter Kriesler¹, Joseph Halevi², Mark Setterfield³

ABSTRACT

Advocates of Job Guarantee (JG) or Employer of Last Resort (ELR) schemes have suggested that if the state provides 'buffer stock' employment to workers displaced from private employment, then full employment can be maintained over the course of the business cycle. Kalecki was sceptical about the prospects for maintaining full employment in capitalist economies, without fundamental institutional change that would alleviate certain political constraints on the maintenance of full employment. We argue that in and of themselves, JG/ELR schemes do not create the fundamental institutional change required to address Kalecki's concerns and so ensure that full employment becomes achievable as a permanent state.

¹ School of Economics, University of NSW, Sydney NSW 2052, Australia, email p.kriesler@unsw.edu.au

² International University, College of Turin, 10121 Torino TO, Italy, email josephhalevi53@gmail.com

³ Department of Economics, New School for Social Research, New York, NY 10003, USA, email mark.setterfield@newschool.edu;
FMM fellow

Political Aspects of ‘Buffer Stock’ Employment: A Reconsideration*

Peter Kriesler
School of Economics
University of NSW
Sydney NSW 2052
Australia
p.kriesler@unsw.edu.au

Joseph Halevi
International University
College of Turin
10121 Torino TO
Italy
josephhalevi53@gmail.com

Mark Setterfield
Department of Economics
New School for Social
Research
New York, NY 10003
USA
mark.setterfield@newschool.edu

August 2020

Abstract

Advocates of Job Guarantee (JG) or Employer of Last Resort (ELR) schemes have suggested that if the state provides ‘buffer stock’ employment to workers displaced from private employment, then full employment can be maintained over the course of the business cycle. Kalecki was sceptical about the prospects for maintaining full employment in capitalist economies, without fundamental institutional change that would alleviate certain political constraints on the maintenance of full employment. We argue that in and of themselves, JG/ELR schemes do not create the fundamental institutional change required to address Kalecki’s concerns and so ensure that full employment becomes achievable as a permanent state.

JEL Classification Codes: E12, E61, J64, J68

Keywords: Employer of last resort, job guarantee, buffer stock employment, political aspects of full employment.

* This paper revises, updates and expands upon Kriesler and Halevi (2001). We would like to thank Geoff Harcourt for his helpful comments on an earlier draft. Any remaining errors are our own.

1. Introduction

Despite co-discovering, with Keynes, the theoretical framework for the principle of effective demand, Kalecki was dubious about the ability of governments in capitalist economies to use macroeconomic policy to create full employment in the longer term. Kalecki's concerns arose not from any economic limitations on the efficacy of full employment policies, but instead from more fundamental political constraints. These political constraints suggest that, unless the underlying institutions of capitalism are changed, full employment cannot be maintained. In short, Kalecki drew an important distinction between *achieving* and *maintaining* full employment in a capitalist economy.

Recently, some heterodox economists have proposed a solution to the problem of unemployment in capitalist economies referred to as either buffer stock employment, or as a job guarantee (JG) or employer of last resort (ELR) scheme.¹ In essence, employment is treated like the stock of goods, with unemployment being the equivalent of a build-up of inventories associated with an economic downturn. The idea is that the government should “buy up” any excess stock of workers by offering employment to “surplus” labour during downturns, so that the government effectively acts as an employer of last resort. Government-employed “stocks” of workers are then released to the private sector on demand, whenever the economy picks up. Operative over the entire course of the business cycle (not just during downturns), buffer-stock employment is thus presented by advocates as a method of not just achieving but also maintaining conditions of full employment, regardless of the state of the private sector and of fluctuations in private-sector employment.

Much of the debate surrounding JG/ELR schemes has focused on their suitability as alternatives to traditional policy interventions (such as the use of fiscal policy to manipulate aggregate demand) as a method of achieving full employment,² or (and in particular) on the pros and cons of the broader Modern Money Theory (MMT) with which JG/ELR schemes are frequently associated.³ The key question addressed in this paper, however, is whether or not a JG/ELR scheme, in and of itself, represents the type of institutional change that Kalecki had in mind as being necessary for the maintenance of full employment. In other words, we ask: can the implementation of a JG/ELR program change the dialectics of capitalist economies, reforming class relations so that full employment becomes achievable as a permanent state? Since Kriesler and Halevi (2001), concern with this issue has arisen elsewhere (see, for example, Palley (2018, p.24 and Levrero (2019, pp.47, 53-54)), but it has been addressed more-or-less in passing, in the course of more general reactions to JG/ELR schemes or MMT. In this paper, it is the sole focus of attention.

The remainder of the paper is organized as follows. In section 2, we outline Kalecki's attitude towards the achievement of full employment, based on the principle of effective demand. Section 3 then discusses the political aspects of full employment that, according to Kalecki (1943), will frustrate the maintenance of full employment in

¹ The term Buffer Stock Employment was used at the time of the Second Annual Path to Full Employment Conference, University of Newcastle, Australia, December 2-3 1999. Such models have since been referred to as the Job Guarantee – see, for example Mitchell (1998) and Mitchell (2001). The term 'Employer of Last resort' was originally preferred by US-based advocates of these schemes (see, for example, Wray, 1998a; Tcherneva, 2012a), although here, too, the term Job Guarantee is popular (Murray and Forstater, 2017; Tcherneva, 2018, 2020). We use these terms interchangeably in what follows.

² See, for example, Tcherneva (2012b, 2012c, 2014). Other issues specific to JG/ELR schemes that are addressed at length in the existing literature include the questions as to what jobs would be offered as buffer stock employment and at what rates of pay, whether or not JG/ELR employment constitutes under-employment, the consequences of JG/ELR schemes for the minimum wage, and the availability of complementary productive resources required for the realization of buffer stock employment. See, for example, Sawyer (2003, 2005, 2019).

³ See, for example, Lavoie (2013), Juniper et al (2014-15), Palley (2015a, 2015b) and Tymoigne and Wray (2015) for just a few examples of this by-now voluminous literature. Issue 89 (2019) of the *Real-World Economics Review* is devoted to "modern monetary theory and its critics" and provides a good recent summary of the various positions taken in this debate.

capitalist economies. In section 4, we use a cost of job loss framework (Shapiro and Stiglitz, 1984; Schor and Bowles, 1987) to analyse political aspects of buffer stock employment, and so address the question as to whether or not JG/ELR schemes provide the requisite institutional transformation to facilitate the maintenance of full employment. We also consider the precise form of the state and its implications for those in buffer stock employment. Although this does not impinge on the capacity of JG/ELR schemes to maintain full employment *per se*, it is – as will become clear – germane to our broader concern with the political aspects of such schemes. Finally, section 5 concludes.

2. Achieving Full Employment

According to Kalecki, the contradictory nature of capitalist dynamics is not the result of the classical inverse relation between the wage rate and the profit rate. For Kalecki, the existence of excess capacity (and hence a variable rate of capacity utilization) destroys any unambiguously indirect relation between real wages and the rate of profits, by virtue of the direct effect of changes in the wage rate on aggregate demand, output, and hence the rate of capacity utilization. To see this, begin with a statement of the division of income in a two-class economy between wages and profits:

$$Y = wN + rK \quad [1]$$

where Y denotes total income, w is the wage level, N is the level of employment, r is the rate of profits, and K denotes the capital stock. Here and throughout this paper, all variables other than those such as N (for which there exists a physical unit of account) are nominal values deflated by a common price index, and are therefore measured in constant prices. Standardizing equation [1] by the capital stock and re-arranging, we can write:

$$r = \frac{Y}{K}(1 - wa) \quad [2]$$

where a represents the (constant) labour to output ratio given the current state of technology. Equation [2] can, in turn, be re-written as:

$$r = \frac{Y}{Y_f} \frac{Y_f}{K} (1 - wa) \quad [3]$$

where Y_f denotes full capacity output (that is, the maximum level of output that can be produced, given the current state of technology, with a capital stock of size K). According to classical economics, $Y = Y_f$: the fundamental constraint on economic activity is the availability of capital. In this case, we have:

$$r = \frac{1}{v} (1 - wa) \quad [3a]$$

$$\Rightarrow \frac{dr}{dw} = -\frac{a}{v} < 0$$

where v represents the full-capacity capital-output ratio. According to Kalecki, however, $Y < Y_f \Rightarrow Y / Y_f = u < 1$: the fundamental constraint on economic activity is aggregate demand, which determines Y and (in general) imposes on the economy chronic under-utilization of productive resources (represented in this exercise by the variable rate of capacity utilization $u < 1$). In this case, we have:

$$r = \frac{u}{v} (1 - wa) \quad [3b]$$

$$\Rightarrow \frac{dr}{dw} = -\frac{ua}{v} + \frac{1}{v} (1 - wa) \frac{du}{dw}$$

If $du/dw > 0$ – that is, if aggregate demand is wage-led (so that a redistribution of income towards wages raises aggregate demand and hence total output) – then the sign of the derivative of [3b] reported above is ambiguous. The classical trade-off between the real wage and rate of profits can now break down.

In Kaleckian macroeconomics, it is the dual function of investment, as both a form of expenditure and a source of additional productive capacity, that gives rise to the basic

underlying contradiction of a capitalist economy. Investment plays a key role in the determination of the level of effective demand, but also determines the size of the capital stock and influences the productivity of labour. Hence:

We see that the question, “what causes periodic crises?” could be answered briefly: the fact that the investment is not only produced but also producing. Investment considered as capitalist spending is the source of prosperity, and every increase of it improves business and stimulates a further rise of spending for investment. But, at the same time investment is an addition to the capital equipment, and right from birth it competes with the older generation of this equipment. The tragedy of investment is that it calls forth the crisis because it is useful; I do not wonder that many people consider this theory paradoxical. But it is not the theory which is paradoxical but its subject - the capitalist economy. (Kalecki, 1936-37 p. 554).

Investment as expenditure and therefore as a source of profits is an important component of effective demand. The crisis is caused when that investment manifests itself as new equipment and so increases existing productive capacity. Unless effective demand grows at the same pace as the growth in capacity, the special case of balanced growth, it is likely to generate unused capacity with negative repercussions for future investment decisions and profits. The achievement and maintenance of full employment thus requires measures aimed at stimulating and/or supplementing overall investment spending by capitalist firms.

One obvious supplement to private investment is public spending, so in principle full employment can be achieved via fiscal stimulus. In this case, Kalecki argues, and contrary to mainstream neoclassical opinion, the burden of the national debt will not constitute a significant problem. Obviously, a constant proportion of debt to national income does not create any problem in financing interest payments. If, by contrast, full employment has to be maintained through a budget deficit that rises as a proportion of national income, then an appropriate tax will be required in order to finance the increasing interest burden. Kalecki recommends a capital tax which, unlike an income tax, will not

affect the profitability of investment if it is levied on all forms of wealth (including money balances), and so is likely to leave investment unchanged. In the aggregate, government expenditure financed by a capital tax will not affect the income of capitalists as a class. The increase in income generated by the government expenditure will be offset by the tax, so that some capitalists will be better off while others are worse off.⁴ In other words, it is possible to maintain levels of effective demand sufficient to generate full employment, without substantial domestic problems for the domestic economy.⁵

3. Political Obstacles to the Maintenance of Full Employment

Although it is possible to *achieve* full employment in a demand-led capitalist economy, its maintenance is nevertheless likely to run into insurmountable problems. In ‘Political aspects of full employment’ Kalecki (1943) appeared relatively optimistic about the efficacy of fiscal policy in achieving full employment. However, he believed that there were fundamental “*political* problems” which make full employment incompatible with capitalism, arguing that “there is a political background in the opposition to the full employment doctrine” (Kalecki 1943 p. 349). Kalecki highlighted three main “reasons for the opposition of ‘industrial leaders’ to full employment achieved by government spending” resulting in class/political pressure being brought to bear [ibid.]:

1. General dislike of government intervention, especially with respect to employment creation. This is reinforced by the power of industry over government in the absence of such intervention. In this case, employment and the level of economic activity are extremely responsive to the “state of confidence” of the “captains of industry”. This gives them significant power over government policy which fiscal intervention would blunt.
2. Dislike of the specific composition of government expenditure, especially with public investment and subsidisation of mass consumption.
3. Dislike of the *social and political consequences* of long-term full employment:

We have considered the political reasons for the opposition to the policy of

⁴ Kalecki, 1944, pp. 362-363 and Kalecki, 1937.

⁵ Halevi and Kriesler (2000) discuss the additional economic complications associated with the achievement of full employment caused by structural factors.

creating employment by government spending. But even if this opposition were overcome - as it may well be under the pressure of the masses - the maintenance of full employment would cause social and political changes which would give a new impetus to the opposition of the business leaders. Indeed, under a regime of permanent full employment, the 'sack' would cease to play its role as a disciplinary measure. The social position of the boss would be undermined, and the self-assurance and class-consciousness of the working class would grow. Strikes for wage increases and improvements in conditions of work would create political tension. It is true that profits would be higher under a regime of full employment than they are on the average under laissez-faire; and even the rise in wage rates resulting from the stronger bargaining power of the workers is less likely to reduce profits than to increase prices and thus adversely affect only the rentier interests. But 'discipline in the factories' and 'political stability' are more appreciated than profits by business leaders. Their class instinct tells them that lasting full employment is unsound from their point of view, and that unemployment is an integral part of the 'normal' capitalist system. (Kalecki 1943 p. 351)

As a result of these considerations, Kalecki argues that the maintenance of full employment is incompatible with capitalism, without fundamental changes to the underlying institutions.

'Full employment capitalism' will, of course, have to develop new social and political institutions which will reflect the increased power of the working class. If capitalism can adjust itself to full employment, a fundamental reform will have been incorporated in it. If not, it will show itself an outmoded system which must be scrapped. (Kalecki 1943 p. 356)

In other words, problems with effective demand are only symptoms of the underlying problem. The use of fiscal policy to increase demand will provide a temporary salve, but what is needed are more fundamental changes to the socio-economic and political structure of society in order to permanently eradicate mass unemployment.

Kalecki's argument, which stresses the socio-political viewpoint of capitalists, is reinforced by the Marxist appreciation of the viewpoint of workers. In a capitalist economy, workers are alienated within the production process, during which it is their exploitation that allows capitalists to earn profits. As a result, whenever they have the

power to do so, workers will strive to improve both their working conditions and their pay. In other words, according to the logic of capitalism, capitalists are right to fear full employment: empowered workers will use that power to improve their lot.

For Marx, unemployment was essential for the survival of capitalism. During the accumulation process, profits drive capital accumulation, increasing the demand for labour until all the excess labour is absorbed into the work force, and wages rise. This puts pressure on profits which, as a result, fall. The resulting crisis gives rise to structural change in the economy and regenerates the reserve army of the unemployed, which then puts downward pressure on wages. As profits rise, the cycle begins again. Central to this dynamic is the inverse relation between the wage rate and the rate of profits, which was the foundation of classical analysis.⁶

Although Kalecki took from Marx the idea of the incompatibility of capitalism and full employment, he saw it operating via a very different mechanism. As Kalecki rejected the vision of competitive capitalism with little excess capacity, he developed a model where an increase in the wage rate would, by increasing aggregate demand, *increase* profits. In other words, for Kalecki, wages and profits were no longer antagonistic.

The incompatibility of capitalism and full employment instead results from a more fundamental aspect of the class relationship. As the above discussion indicates, unemployment is the means by which the capitalist class asserts its control over the working class. Without unemployment, the inherent contradictions of the system would exasperate the underlying social and political tensions resulting in problems of discipline and instability. Either the institutional base of the economy would need to change, or full employment would have to be sacrificed. In retrospect, the period since 1980 has demonstrated that almost all capitalist economies are inclined to take the easy way out,

⁶ Marx (1977) chapter 25. cf. "Unemployment is therefore a necessary condition for accumulation and it is created by accumulation itself" (Sylos-Labini, 1983 p. 133)

abandoning the commitment to full employment. This was sanctioned, in exactly the manner predicted by Kalecki, by economists, who argued the impotence of fiscal policy and the paramount need for “sound finance”.

4. Political Aspects of ‘Buffer Stock’ Employment

We are now in a position to ask the question posed in the introduction: do governments acting as employers of last resort constitute the sort of “fundamental reform” of capitalist relations of production necessary (per Kalecki) for capitalism to maintain (as opposed to merely achieve) full employment? It should be noted that in what follows, we will not consider the important benefits that a buffer stock employment scheme will bring. There can be no doubt that elimination of unemployment in any manner, no matter how temporary, will reduce the heavy social costs of unemployment associated with increased crime, health problems and other serious social problems (Atkinson et al, 1986; Wray, 1998b; Nevile and Kriesler, 1998; Morris, 2002; Knabe and Rätzel, 2010).⁷ However, the exclusive concern of this paper is with the longer-term socio-political implications of such schemes and the difficulty of maintaining full employment in light of these implications. As such, we focus entirely on the question just posed. In order to answer this question, we need to consider the degree to which an ELR/JG scheme can alleviate class conflicts – in other words, the extent to which it can reconcile the opposing interests of capital and labour in capitalist economies. It is to this task that we now turn.

⁷ Note also that as remarked by Colander (2019), MMT (in which JG/ELR proposals are usually embedded) has been extremely successful in engaging an audience – including policymakers – outside academia. As a result of this success, it has even attracted the attention of mainstream economists (see, for example, Mankiw, 2020). In and of themselves, these are remarkable achievements for a branch of contemporary heterodox economic thinking.

i) Unemployment as a worker discipline device

As discussed above, unemployment serves an important function in capitalist economies by disciplining workers, with respect to both their wage demands and their labour effort. The major part of this discipline comes, of course, from the loss in income. Here, the cost of job loss to a worker depends both on the likelihood of getting another job and of the loss of income associated with unemployment and (potentially) with the new job (Shapiro and Stiglitz, 1984; Schor and Bowles, 1987). But a further substantial cost of unemployment is the loss of social as well as economic identity associated with joblessness. ‘Buffer stock’ employment eliminates this non-pecuniary cost: there is no job loss. For ‘the sack’ to maintain its power of discipline over workers, therefore, the movement from private sector employment to ‘buffer stock’ or JG employment must present a cost to the worker in terms of income loss. This immediately sets a maximum level to the wages paid for ‘buffer stock’ employment.⁸

Consider now the implications for wage bargaining and inflation control. In contemporary capitalism, inflation control can be achieved through restrictive fiscal and monetary policy building up the reserve army of unemployed (reinforced more recently by industrial relations policies which significantly erode the bargaining power of labour). The increased unemployment both reduces demand pressures and (more importantly) reduces the power of workers to attempt to bid up or even maintain real wages.⁹ As a result, just as in Marx, unemployment puts pressure on wage earners, and hence the value of the real wage contributes to the stability of the system. In the JG model, this disciplinary role is played not by unemployment, but by the movement of workers into buffer stock employment. As Mitchell (1998) argues:

⁸ We return to this point below when specifying the conditions required for there to be a positive ‘cost of job loss’ when an ELR/JG scheme is operative.

As the BER [ratio of buffer stock employment to total employment] rises, due to an increase in interest rates and/or a fiscal tightening, resources are transferred from the inflating non-buffer stock sector into the buffer stock sector at a price set by the government; this price provides the inflation discipline. (p. 551)

In the advent of inflation, and absent a JG scheme, workers dropping from employment to unemployment reduce inflationary pressure both by reducing demand and by reducing the militancy of the labour force. With a JG, workers will drop from employment to ‘buffer’ employment. But *ceteris paribus*, the latter must provide much the same ‘Phillips curve effect’ as unemployment (Seccareccia, 2004; see also Wray, 1998b, pp.543-4). Indeed, if the loss in income associated with this transition is less than the income loss associated with dropping from employment into unemployment – so that buffer stock employment is something more than ‘workfare’ – then *ceteris paribus*, more workers must change state in order to effect the same level of discipline on workers and hence leave inflation unchanged. In this case, the NAIBER (the “non-accelerating inflation buffer employment share, [which] is the ratio of buffer stock employment to total employment that is required to stabilise inflation” (Mitchell 1998 p. 547n)) must be higher than the NAIRU.¹⁰ The JG thus involves a clear opportunity cost of size $x = \text{NAIBER} - \text{NAIRU}$, the proportion of the labour force that will now be in ‘buffer stock’ employment rather than being ‘fully’ employed in the private sector. It would appear that in order to create sufficient discipline to control inflation, the rate of private sector employment needs to be lower with a JG scheme that pays in excess of any unemployment benefit (Sawyer, 2003). Apart from the

⁹ We assume that wage bargaining is conducted in nominal terms, but this does not preclude the possibility that workers have real wage aspirations – even if (as is frequently the case) these are no greater than maintenance of their previously-established standard of living.

¹⁰ There is, of course, no unique supply-determined NAIRU (or NAIBER) in an economy subject to the principle of effective demand. There can, however, be a particular rate of unemployment (or buffer stock employment) that, at any given point in time, is associated with a particular reference or target rate of inflation. Throughout this paper, we use the terms ‘NAIRU’ and ‘NAIBER’ in this broad sense – to denote rates of unemployment or buffer-stock employment that, *ceteris paribus*, achieve the same reference or target rate of inflation. Note that if inflation tolerance and hence the target rate of inflation changes, so too will both the NAIRU and NAIBER as defined here. This, however, is a separate issue from which we abstract in what follows.

cost imposed on workers, this will also have potential implications for private sector profitability and growth.¹¹

In order to investigate more thoroughly what is at stake here, write the expected cost of job loss in constant-price terms (c) as:

$$c_i = (p_D + p_{R,i})n_i(w - \sigma_i) \quad [4]$$

where p_D is the probability of job destruction due to a firm-specific, industry-specific or macroeconomic shock (which we take as exogenously given, regardless of whether or not there is an JG scheme operating), p_R is the probability of employer-initiated replacement of an “insider” (current employee) by an “outsider” (either an unemployed worker or a JG worker) independent of insider performance,¹² n is the duration of the unemployment or JG spell, w is, as previously defined, the real wage received in private sector employment (again taken as given), σ is the replacement income that workers not employed in the private sector receive from the state (i.e., r is either an unemployment benefit or the JG wage), and $i = U, JG$, with U denoting values pertaining to a regime of conventional unemployment and JG denoting values pertaining to a regime characterized by a JG scheme.¹³ Note that $w > \sigma_i \Rightarrow c_i > 0, \forall i$. In other words, just as the unemployment replacement rate must be less than one in order to avoid incentivizing unemployment, so, too, must the buffer stock employment wage be less than the private sector employment

¹¹ This, in turn, raises the problem of the reaction of capitalists to the scheme, on which see Kriesler and Halevi (2001).

¹² Note that both p_D and p_R are independent of individual worker performance. Explaining job separations that are *caused by* individual performance (as a behavioral response to $n(w - \sigma)$) is usually the focus of the cost of job loss literature. But the latter does, nevertheless, acknowledge the possibility of exogenous (to worker behaviour) separations. These may be caused by events beyond the firms control (p_D), or they may be deliberately chosen actions by firms designed to “keep workers on their toes” (p_R). Note further that p_R is deliberately conceived as the probability of an employer replacing an insider with an outsider (rather than another insider), in order to maintain focus on the threat to insiders posed by either unemployed or JG workers.

¹³ Note that re-employment in the private sector following a spell of unemployment or JG employment is assumed to occur at the wage w . We therefore overlook, for the sake of simplicity, the possibility that such re-employment may occur at a real wage *different* from w , which would obviously modify the expected cost of job loss calculated in [4]. See Schor and Bowles (1987).

wage in order to avoid incentivizing buffer stock employment and thus effectively converting the public sector into an employer of *first* resort.

In addition to [4], we also write:

$$p_{R,i} = p(e) \quad , \quad p_e < 0 \quad [5]$$

where e is the private sector employment rate (total employment in the private sector divided by the total labour force, which we take as given). Equation [5] states that as private sector employment rises (which, given the size of the labour force, raises e), the ease with which employers can replace insiders with outsiders diminishes, reducing the likelihood of such replacement. Note that this will, in turn, affect the expected cost of job loss in [4].

Now suppose that a JG scheme is introduced, so that all previously unemployed workers are henceforth employed by the public sector. If $\sigma_{JG} = \sigma_U$, then *ceteris paribus*, the JG scheme will not affect the expected cost of job loss. There would be no need to have $NAIBER > NAIRU$ in order to reduce e in order to make $p_{R,JG} > p_{R,U}$ (via equation [5]) in order to make $c_{JG} = c_U$ (in equation [4]). However, if $\sigma_{JG} > \sigma_U$, then a JG scheme is effectively workfare – “working for the dole”. This is not the ambition of such schemes (and rightly so), which is, instead, to create “proper” jobs with a real wage in excess of unemployment benefits. It is therefore more reasonable to assume that we will observe $\sigma_{JG} > \sigma_U$. But in this case, *ceteris paribus*, the scheme *will* affect the expected cost of job loss in [4]. Specifically, we will observe $c_{JG} < c_U$. If the introduction of a JG scheme with $\sigma_{JG} > \sigma_U$ causes (*ceteris paribus*) $c_{JG} < c_U$, how can this be offset so as to maintain the expected cost of job loss and hence previously existing worker discipline? As has already been argued, one possibility is to accept that $NAIBER > NAIRU$. This involves reducing e in order to make $p_{R,JG} > p_{R,U}$ (via equation [5]) so as to make $c_{JG} = c_U$ (in equation [4]). In this case, as previously noted, the JG scheme has a cost measured in terms of the

permanently foregone level of private sector employment given by $x = \text{NAIBER} - \text{NAIRU}$.

But need this cost materialize? To put it differently, do other things remain equal when a JG scheme with $\sigma_{JG} > \sigma_U$ is introduced? Or will the scheme cause additional changes in [4] and/or [5] that will automatically maintain $c_{JG} = c_U$ without elevating the NAIBER above the NAIRU? For example, is it possible that the likelihood of regaining private sector employment is higher for JG workers than for the unemployed, because they experience none of the negative effects on employability associated with joblessness (Mitchell and Wray, 2005, p.5)?¹⁴

In the model develop above, any qualitative difference between buffer stock employment and unemployment will affect the size of $p_{R,i}$ and n_i . To explore this in more detail, suppose that, instead of [5], we write:

$$p_{R,i} = p_i(e) \quad , \quad p_{i_e} < 0 \quad [5a]$$

In equation [5a], the function $p_i(\cdot)$ is now specific to the form taken by a worker's non-engagement in private sector employment. It could be argued that, for two otherwise identical economies $i = JG, U$, in which $1 - e$ constitutes JG employment in the first economy and unemployment in the second, for any arbitrarily given rate of private sector employment e , we will observe:

$$p_{R,JG} = p_{JG}(e) > p_U(e) = p_{R,U} \quad [6]$$

¹⁴ According to Mitchell and Wray (2005, p.7), not only is $\text{NAIBER} < \text{NAIRU}$, but also the marginal impact on inflation dynamics of an increase in buffer stock employment exceeds the marginal impact on inflation dynamics of an increase in unemployment. In other words, the sacrifice necessary to reduce the reference or target rate of inflation (i.e., the net loss of private sector employment or, equivalently, the increase in the size of the NAIRU or NAIBER) is smaller under an ELR/JG scheme than in the absence of such a scheme. As previously stated, we focus here on the levels of the NAIRU and NAIBER for any given target rate of inflation, rather than their required marginal rates of change following a decline in the target rate of inflation. We therefore abstract from the impact of ELR/JG schemes on the 'slope of the Phillips curve' (which is effectively the issue under discussion here) – although this issue is undoubtedly worthy of further thought and investigation. As should be intuitively obvious, even if the NAIRU and NAIBER are equivalent at some initial target rate of inflation, this equivalence will cease to hold if the target rate of inflation changes *and* the marginal rate of substitution between unemployment and inflation differs from the marginal rate of substitution between buffer-stock employment and inflation.

This is because JG workers are *employed* and will thus avoid recognized pitfalls of unemployment – such as loss of informal labour market contacts, the depreciation of human capital, and the accumulation of a negative credential (the status of unemployment itself) – thus making them more suitable replacements for insiders than the unemployed. Note that, *ceteris paribus*, the result in [6] would increase the value of c_{JG} relative to that of c_U in equation [4] – perhaps to an extent sufficient to offset the expected-cost-of-job-loss reducing effect of $r_{JG} > r_U$. In this case it will be possible to maintain $c_{JG} = c_U$ without any decrease in e – or in other words, we will have NAIBER = NAIRU.

However, further inspection reveals that there are problems with this argument. First, it is questionable as to whether or not [5a] is correct, so that we will actually observe the result in [6]. For example, will JG workers better maintain informal contacts in the *private* sector by virtue of performing JG work in the *public* sector? This will depend on the precise structure of the JG scheme and hence the extent to which JG workers interact with private sector employers and employees while on the job. Second, it is not clear that JG workers will avoid human capital depreciation. Firm-specific skills will be lost regardless of whether a worker moves from private employment to unemployment rather than from private employment to JG employment. Specialized skills may also be lost in both cases, unless JG workers perform the *same* work in the public sector that they performed previously (and aspire to perform in the future) in the private sector. Finally, in a credentialist labour market, it is not clear that JG status will not simply replace unemployment as a negative credential. If workers who engage in buffer stock employment are treated by private-sector employers as part of an undifferentiated mass of ‘labour outside private employment’, then in a credentialist labour market, JG workers will be no better off than the unemployed.

Suppose, however, that by virtue of their continued employment in *some* capacity, JG workers are better placed to retain *general* workplace skills than their unemployed counterparts, and that this suffices to ensure that equation [5a] is true and that the specific result in [6] holds. With e constant by hypothesis, the result in [6] *must* be accompanied by $n_{JG} < n_U$, since the overall rate of unemployment (buffer stock employment) is given by the product of the incidence of unemployment (buffer stock employment) and its duration. In other words, and contrary to the analysis immediately following equation [6], other things *cannot* be equal in the event that the transition to a JG scheme produces the result in [6]. Note from equation [4] that if $n_{JG} < n_U$, then *ceteris paribus*, this will *reduce* the value of c_{JG} relative to that of c_U . The question then becomes whether the cost-of-job-loss-increasing effect of [6] outweighs, or is outweighed by, the cost-of-job-loss-decreasing effect of $n_{JG} < n_U$.

Of course, even if the cost-of-job-loss-increasing effect of [6] *does* outweigh the cost-of-job-loss-decreasing effect of $n_{JG} < n_U$, the resulting net positive impact on the cost of job loss would still need to be sufficiently large to offset the negative impact on the cost of job loss of $\sigma_{JG} > \sigma_U$ in order to achieve the result $c_{JG} = c_U$ in [4] without any decrease in e .¹⁵ In sum, even if other things *aren't* equal when the switch to a JG scheme with $\sigma_{JG} > \sigma_U$ is effected, the total impact of the scheme on the cost of job loss is ambiguous. It may still be necessary to lower e to prevent a reduction in the cost of job loss. What this suggests is that in and of itself, a JG scheme does not transform capitalism in a manner that necessarily reduces (much less eliminates) the need for there to be a credible threat of imposing costs on workers arising from the loss of private sector employment. In this way, we respectfully disagree with the assertion of Mitchell and Wray (2005, p.7) that such an outcome could only arise from “a very poorly designed JG program”.

Can something else be done to complement the JG scheme and so effect the necessary institutional transformation? Suppose, for example, that:

$$Z = Z(c, B) \quad , \quad Z_c, Z_B < 0 \quad [7]$$

where Z denotes the willingness and ability of workers to challenge the terms and conditions of the employment relation, and B is a social bargain index (measuring the degree to which workers participate, with firms, in the determination of the terms and conditions of employment).¹⁶ Then it is obvious from [7] that the cost-of-job-loss reducing effects of a JG scheme with $\sigma_{JG} > \sigma_U$ could be offset by the successful negotiation of a social bargain. This suggests that a social bargain is a potential complement to a JG scheme. Indeed, in light of the discussion above, it may well be that a social bargain is a *necessary* complement to a JG scheme, in order for the latter to avoid the political economy complications that arise in a capitalist economy from a decline in the cost of job loss. Of course, social bargains are difficult to both negotiate and reproduce over time, and require that workers have sufficient bargaining power *vis a vis* firms to influence their institutional form.¹⁷ They also require the ongoing commitment of all parties (capital, labour, and the state), as demonstrated by Australian experience with the ACCORD under the Hawke Labor government during the 1980s. The ACCORD succeeded in achieving low unemployment and inflation, even when challenged by a severe nominal exchange

¹⁵ Of course, if the value of e is privileged, then it may be possible to adjust r_{JG} closer to the value of r_U to ensure that $c_{JG} = c_U$. However, there is an obvious limit to this process if the ambition of JG schemes is to be something other than workfare.

¹⁶ See, for example, Cornwall (1990) on the notion of a social bargain, and Bowles et al (1990) on the related concept of a “capital-labour accord”.

¹⁷ Otherwise, the result is an ‘incomes policy based on fear’ (Cornwall, 1990; Setterfield, 2006), where the threat of job loss is replaced by labour market institutions (such as labour law hostile to the creation and maintenance of union representation) that act as the discipline device ensuring worker passivity and quiescence. Note also that the conditions required for the creation and maintenance of the alternative social bargain may be historically specific and even fleeting. According to Hobsbawm (1994), the social bargains referred to in the text were part of a “short twentieth century” (1914-91) characterized by a transitory and extraordinary confluence of strong labour movements, the legacy (post-1945) of suffering from two world wars and the Great Depression, and (most importantly) the existence of an alternative (Soviet) mode of production that appeared to offer a viable alternative to capitalism itself. These conditions are unlikely to be repeated – and certainly nothing of the like exists in contemporary (neoliberal) capitalism to which, according to former British Prime Minister Margaret Thatcher, “there is no alternative”.

rate depreciation that raised imported inflation. Unfortunately, however, employers did not fully engage with the bargain, as a result of which investment in productive activity remained low despite a high profit share (Kriesler and Halevi, 1995, 1997). Nevertheless, a social bargain may be what is required if a JG is to involve the institutional transformation necessary to avoid the political aspects of its operation identified in this paper.

ii) ELR/JG schemes and the theory of the state

ELR/JG proposals make implicit assumptions about the ways in which governments act, as well as to their benign motivations.¹⁸ These implicit assumptions can be characterized as an “extreme liberal” theory of the state, according to which the state is always and everywhere a benevolent force for the common good. But while the liberal democratic state may not always be completely captured by capitalist interests (as in a crude Marxian theory of the state), it is ill-advised to assume that it never will be – or that the interests of private wealth will not generally predominate in determining the actions of the state. Indeed, this is only to be expected when – as in JG schemes – the economy is assumed to remain fully capitalistic in its social relations of production.

In this context, the idea that otherwise unemployed workers can and should be employed by the government until effective demand picks up sufficiently to reabsorb these workers in the private sector is potentially problematic. This is because control of the state, and hence the extent to which the state departs from an extreme liberal position of always and everywhere seeking to maximize social welfare, will affect what workers in buffer stock employment are required to do. Consider as an extreme example the

structuring of the unemployed in a de facto state managed consortium that occurred in the Arbiter Front, which existed in cartelised capitalist Germany in the 1930s during the Nazi regime. In Germany the economic recovery initiated by the rearmament process was so strong as to generate quite rapidly a situation of virtual full employment, thanks also to the increase in military expenditure. Yet, formally, the role of the Arbeiter Front was precisely to marshal labour according to the priorities of the State. Although it is not suggested that this extreme would be repeated, nevertheless, it provides an important lesson. Hence consider the more recent example of state-directed labour in the US under the presidency of George W. Bush. According to various contemporary media reports, the Bush administration abused the Army Reserve and National Guard in its prosecution of the Iraq war, requiring longer and more frequent tours of duty in combat roles for which neither reservists nor members of the National Guard were properly prepared.¹⁹ Alternatively, consider the Community Action programme piloted in the UK under the coalition government of Prime Minister David Cameron. This required the long-term unemployed to work without pay for non-governmental organizations for a period of six months, or else forfeit their unemployment benefits.²⁰ Clearly, the Community Action Programme is quite different from the sort of buffer stock employment scheme proposed by most ELR/JG advocates, not least because it *mandates* buffer stock employment for those displaced from private sector employment (see also Palley, 2015a, p.20).²¹ But precisely because of this it serves to illustrate that the intentions and motivations of the state cannot

¹⁸ The concerns expressed in this sub-section can be considered both a generalization and a sharpening of an existing concern in the ELR/JG literature – namely, that such schemes may have adverse consequences for existing public sector employment, by tempting governments to substitute cheaper ELR/JG workers (hired at the rate $r_{JG} < w$ to satisfy $c_{JG} > 0$ in equation [4]) for existing public-sector workers. See Palley (2015a, pp.19-20), Sawyer (2019, p.174), and Levrero (2019, p.47).

¹⁹ “Reserve chief says force not properly prepared to fight war on terror,” *New York Times*, September 16, 2004; “National Guard may undertake Iraq duty early,” *New York Times*, February 22, 2007 “US National Guard bears Iraq burden,” BBC World Service, April 25, 2007.

²⁰ “Million jobless may face six months unpaid work or have benefits stopped,” *The Guardian*, July 29, 2012.

be taken for granted, especially as they may not always align with those of ELR/JG advocates when it comes to the treatment of the (otherwise) unemployed. One can only imagine, for example, how the Trump administration in the US would use a proportion of the labour force that is put at its disposal by a ELR/JG scheme.

As noted by Tymoigne (2013, p.85), proponents of ELR/JG schemes “have a specific vision of what a JG program ought to accomplish” – the realization of which, he adds, “requires highly determined administrators”. The examples provided above suggest that, in fact, *power* (specifically, sufficient working class influence of the form taken by the state), not just vision and determination, is required for proper realization of an ELR/JG scheme. Only with a sufficiently strong labour movement, and hence sufficient countervailing power to confront the ‘natural’ centre of power in capitalism (private wealth), can a JG scheme be expected to function in the manner envisaged by its advocates. Absent such countervailing power, it may otherwise lead to a super-corporatist state that is anything but friendly to labour (see Kriesler and Halevi, 1995). Consider in this context Chomsky’s analysis, according to which modern capitalism is a system of large corporations whose technostructure is strictly interwoven with the bureaucracy of strong states. A state-managed labour consortium would accentuate the state monopolistic elements outlined by Chomsky and before him by Baran and Sweezy. When Galbraith (1952) wrote *American Capitalism* in the mid-1950s he had a firm view about the necessity of countervailing powers. There are none, of any significance, today in economies such as the USA, and this is a structural phenomenon not just a passing one. Hence, given that the State is not neutral and accepting the validity of Chomsky’s analysis, a State guided labour consortium will strengthen the monopolistic features of contemporary capitalism in an institutional way.

²¹ In most – but not all – ELR/JG proposals, acceptance of buffer stock employment is voluntary: receipt of unemployment benefits remains an option.

5. Conclusions

In this paper we have reiterated Kalecki's distinction between the possibility of achieving full employment in capitalist economies, and the overwhelming difficulty of maintaining full employment. Governments can, through the use of appropriate macroeconomic policy interventions, achieve full employment without creating major problems for the economy. Although the achievement of full employment is essentially an economic matter, however, its maintenance becomes a political one. Full employment conflicts with the interests of capitalists as a class. As a result, capitalists can be expected to bring pressure to bear on governments that will make the maintenance of full employment difficult. The main concern of capitalists is that full employment lessens their power in the class struggle with workers, and so reduces their ability to impose terms and conditions of employment that are favourable to their interests (profit and the maintenance of control over the production process). Without changes to the fundamental institutions of capitalism that enable the resolution of some of this conflict without the cost of unemployment, the maintenance of full employment remains an unachievable goal in capitalist economies.

JG or ELR proposals are, by their very nature, intended to provide long-term (structural) solutions to the problem of chronic unemployment in capitalist economies, rather than merely redressing unemployment when it rises during cyclical downturns. They do not achieve fundamental institutional reform in the Kaleckian sense, however. Rather than dealing with the underlying contradictions in capitalism by addressing aspects of class struggle, JG/ELR schemes really only provide an alternative route to the achievement of full employment, not the means for its long-term maintenance.

This does not mean that such schemes have no place, however: their failing with respect to the criteria for maintaining full employment in capitalist economies is little different from that of other methods of achieving full employment (for example, by

manipulating the level of aggregate demand through fiscal and/or monetary policy). In the event that capitalism can be reformed in the manner suggested by Kalecki, JG/ELR schemes could have an important role to play in offsetting the effects of cyclical variations in private sector employment in such a way that eliminates involuntary unemployment as a feature of capitalist macroeconomic performance. A social bargain of the sort that existed in various advanced capitalist economies during the mid-twentieth century is one way of effecting the necessary institutional change. Social bargains are, themselves, difficult to both construct and maintain, however, and require that workers possess and can exercise bargaining power on a scale that is nowhere currently evident. The precise form of the state is also a product of class interests and conflict, and a sufficient balance of power is required to protect those who find themselves in buffer stock employment from abuse. In view of all this we are led to conclude that the conditions necessary to permanently maintain full employment under capitalism are likely to remain elusive. We can state with surety that in and of themselves, JG/ELR schemes do not create the institutional pre-conditions necessary to transcend this state of affairs.

References

- Atkinson, T., R. Liem, and J.H. Liem (1986) 'The social costs of unemployment: implications for social support,' *Journal of Health and Social Behavior*, 27, 317-31
- Bhaduri A. (1998) 'Expanded Reproduction', in Heinz Kurz and Neri Salvadori (eds.), *The Elgar Companion to Classical Economics*, Volume A-K, Edward Elgar, Cheltenham, UK, pp. 268-74.
- Baran P.A. and Sweezy P.M. (1966) *Monopoly Capital*, Monthly Review Press, New York.
- Bowles, S., D. Gordon and T. Weisskopf (1990) *After the Waste Land*, Armonk, NY, M.E. Sharpe.
- Colander, D. (2020) "Are modern monetary theory's lies 'plausible lies'?" *real-World Economics Review*, 89, 62-71
- Cornwall, J. (1990) *The Theory of Economic Breakdown*, Oxford, Basil Blackwell.
- Galbraith, J.K. (1952) *American Capitalism: The Concept of Countervailing Power*, Boston, Houghton Mifflin
- Halevi J. (1985) 'The Contemporary Significance of Baran and Sweezy's Notion of Monopolistic Capitalism', in M. Jarsulic (ed.), *Money and Macropolicy*, Kluwer-Nijhoff, Boston and Dtrecht, pp. 109-133.
- Halevi J. and Kriesler P. (2000) 'On the limitations of fiscal policy: A radical Kaleckian view' in Bougrine J.H. (ed.) *The Economics of Public Spending: Debts, Deficits and Public Performance*, Edward Elgar, forthcoming.
- Hobsbawm, E. (1994) *Age of Extremes: The Short Twentieth Century, 1914-1991*, London: Michael Joseph.
- Juniper, J., T.P. Sharpe and M.J. Watts (2014-15) 'Modern monetary theory: contributions and critics,' *Journal of Post Keynesian Economics*, 37, 281-307
- Kalecki M. (1933) 'Essay on the Business Cycle Theory', in Kalecki (1990) *Collected Works Vol. I*, pp. 66-108.
- Kalecki M. (1936-37) 'A Theory of the Business Cycle', in Kalecki (1990) *Collected Works Vol. I* pp. 529-557.
- Kalecki M. (1937) 'A Theory of Commodity, Income and Capital Taxation', in Kalecki (1990) *Collected Works Vol. I* pp. 319-325.
- Kalecki M. (1943) 'Political Aspects of Full Employment', in Kalecki (1990) *Collected Works Vol. I* pp. 348-356.
- Kalecki M. (1944) 'Three Ways to Full Employment', in Kalecki (1990) *Collected Works Vol. I*, pp. 357-376.
- Kalecki M. (1945) 'Full Employment by Stimulating Private Investment?', in Kalecki (1990) *Collected Works Vol. I*, pp. 377-386.
- Kalecki M. (1946a) 'A Comment on 'Monetary Policy'', in Kalecki (1990) *Collected Works Vol. I* pp. 402-408.
- Kalecki M. (1946b) 'Multilateralism and Full Employment', in Kalecki (1990) *Collected Works Vol. I*, pp. 409-416.
- Kalecki M. (1962) 'Observations on the Theory of Growth', *The Economic Journal*, Vol. 72, March, pp. 134-153.
- Kalecki M. (1971) *Selected Essays on the Dynamics of the Capitalist Economy, 1933-70*, Cambridge University Press, Cambridge.
- Kalecki M. (1971a) 'Class Struggle and Distribution of National Income' in Kalecki (1991), *Collected Works Volume II*, pp. 96-103.
- Kalecki M. and Kowalik T. (1971b) 'Observations on the 'Crucial Reform'' *Collected Works Vol. II*, pp. 466-476.
- Kalecki M. (1971c) *On Foreign Trade and 'Domestic Exports'*, pp.15-25.

- Kalecki M. (1990) *Collected Works of Michal Kalecki. Volume I. Capitalism: Business Cycles and Full Employment*, edited by Jerzy Osiatynski; translated by Chester Adam Kisiel. Oxford; New York; Toronto and Oxford University Press, Clarendon Press, Melbourne.
- Kalecki M. (1991) *Collected Works of Michal Kalecki. Vol II. Capitalism: Economic Dynamics*, edited by Jerzy Osiatynski; translated by Chester Adam Kisiel. Oxford; New York; Toronto and Oxford University Press, Clarendon Press, Melbourne.
- Knabe, A. and S. Rätzel (2011) ‘Quantifying the psychological costs of unemployment: the role of permanent income,’ *Applied Economics*, 43, 2751-63
- Kriesler P. and Halevi J. (1995) ‘Corporatism in Australia’ in Arestis, P. and Marshall, M. (eds.) *The Political Economy of Full Employment*, Edward Elgar, pp.217-237
- Kriesler P. and Halevi J. (1997) ‘Australia deconstructed’ *Journal of Australian Political Economy*, 32, 106-21.
- Kriesler P. and Halevi J. (2001) ‘Political Aspects of ‘Buffer Stock’ Employment,’ *Economic and Labour Relations Review*, Supplement to Vol. 12, pp.72-82
- Lavoie, M. (2013) ‘The monetary and fiscal nexus of neo-Chartalism: a friendly critique,’ *Journal of Economic Issues*, 47, 1-31
- Leverero, E.S. (2019) “On the criticisms of and obstacles to the Employer of Last Resort policy proposal,” *International Journal of Political Economy*, 48, 41-59
- Mankiw, N.G. (2020) “A skeptic’s guide to Modern Monetary Theory,” *American Economic Review Papers and Proceedings*, 110, 141-44.
- Marx K. (1977) *Capital Volume I*; Pelican Books, London
- Mitchell W.F. (1998) ‘The Buffer Stock Employment Model and the NAIRU: The Path to Full Employment’, *Journal of Economic Issues*, Vol. 32, pp. 547-56.
- Mitchell W.F. (2001) ‘The Job Guarantee and Inflation Control’, *Economic and Labour Relations Review*, Supplement to Vol. 12, pp. 10-25.
- Mitchell, W. and L.R Wray (2005) ‘Full employment through job guarantee: a response to critics,’ Centre of Full Employment and Equity Working Paper No. 04-13
- Morris, A. (2002) ‘The social costs of unemployment,’ *Economics and Labour Relations Review*, 13, 207-25
- Murray, M.J. and M. Forstater (eds) (2017) *The Job Guarantee and Modern Money Theory: Realizing Keynes’s Labor Standard*, London, Palgrave
- Nevile J. and Kriesler P. (1998) ‘Full employment, a neglected, but indispensable and feasible human right’, CAER Working Paper 998/2
- Palley, T.I (2015a) ‘Money, fiscal policy, and interest rates: a critique of modern monetary theory,’ *Review of Political Economy*, 27, 1-23
- Palley, T.I (2015b) ‘The critics of Modern Money Theory (MMT) are right,’ *Review of Political Economy*, 27, 45-61
- Palley, T.I (2018) ‘Government spending and the income-expenditure model: the multiplier, spending composition, and job guarantee programs,’ FMM Working Paper No. 30
- Rowthorn R. (1977) ‘Conflict, Inflation, and Money’, *Cambridge Journal of Economics*. Vol.1, pp.215-239.
- Sawyer, M.C. (2003) ‘Employer of last resort: could it deliver full employment and price stability?’ *Journal of Economic Issues*, 37, 881-907
- Sawyer, M.C. (2005) ‘Employer of last resort: a response to my critics,’ *Journal of Economic Issues*, 39, 256-64
- Sawyer, M.C. (2019) ‘Modern monetary theory: is there any added value?’ *Real-World Economics Review*, 89, 167-79
- Schor, J.B. and S. Bowles (1987) “Employment rents and the incidence of strikes,” *Review of Economic Studies*, 69, 584—92

- Seccareccia, M. (2003) 'What type of full employment? A critical evaluation of "Government as the Employer of Last Resort" policy proposal,' *Investigación Económica*, 63, 15-43
- Setterfield, M. (2006) "Balancing the macroeconomic books on the backs of workers: A simple analytical political economy model of contemporary U.S. capitalism," *International Journal of Political Economy*, 35, 46-63
- Shapiro C. and Stiglitz J. (1984) 'Equilibrium unemployment as a worker disciplinary device', *American Economic Review*, Vol. 74 pp. 433-444
- Sylos-Labini P. (1984) 'The problem of economic growth in Marx and Schumpeter', in *The Forces of Economic Growth*, Cambridge, MA, MIT Press
- Tcherneva, P. (2012a) 'Beyond full employment: the employer of last resort as an institutional change,' Levy Economics Institute Working Paper No. 732
- Tcherneva, P. (2012b) 'The role of fiscal policy: lessons from stabilization efforts in the United States during the Great Recession,' *International Journal of Political Economy*, 41, 5-25
- Tcherneva, P. (2012c) 'Permanent on-the-spot job creation – the missing Keynes plan for full employment and economic transformation,' *Review of Social Economy*, 70, 57-80
- Tcherneva, P. (2014) 'Reorienting fiscal policy: a bottom-up approach,' *Journal of Post Keynesian Economics*, 37, 43-66
- Tcherneva, P. (2018) 'The job guarantee: design, jobs, and implementation,' Levy Economics Institute Working Paper No. 902
- Tcherneva, P. (2020) *The Case for a Job Guarantee*, Cambridge, Polity Press
- Tymoigne, E. (2013) 'Job guarantee and its critics: insights from the New Deal experience,' *International Journal of Political Economy*, 42, 63-87
- Tymoigne, E. and L.R. Wray (2015) 'Modern Money Theory: a reply to Palley,' *Review of Political Economy*, 27, 24-44
- Wray, L.R. (1998a) 'Government as employer of last resort: full employment without inflation,' Levy Economics Institute Working Paper No. 213
- Wray L.R. (1998b) 'Zero unemployment and stable prices', *Journal of Economic Issues*, Vol. 32 pp. 539-46

Imprint

Publisher

Macroeconomic Policy Institute (IMK) of Hans-Böckler-Foundation, Georg-Glock-Str. 18,
40474 Düsseldorf, Contact: fmh@boeckler.de, <https://www.fmm-macro.net>

FMM Working Paper is an irregular online publication series available at:
<https://www.boeckler.de/de/fmm-working-paper-22457.htm>

The views expressed in this paper do not necessarily reflect those of the IMK or the Hans-Böckler-Foundation.

ISSN 2512-8655



This publication is licensed under the Creative commons license:
Attribution 4.0 International (CC BY).

Provided that the author's name is acknowledged, this license permits the editing, reproduction and distribution of the material in any format or medium for any purpose, including commercial use.

The complete license text can be found here: <https://creativecommons.org/licenses/by/4.0/legalcode>

The terms of the Creative Commons License apply to original material only. The re-use of material from other sources (marked with source) such as graphs, tables, photos and texts may require further permission from the copyright holder.
