

The Employer of Last Resort:
A Policy to Ensure Full Employment and Greater Price Stability

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Abstract: The United States government is dedicated to ensure truly full employment and price stability. However, current policies to increase employment via pump-priming have been unsuccessful, and further analysis shows that free market capitalism will not achieve full employment on its own. In this paper, I explore the cost of unemployment and argue for solution through an Employer of Last Resort program (ELR), which seeks to have the government directly employ all people ready, willing, and able to work. I also look at case studies of ELR programs implemented throughout history.

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I. Introduction

At the end of World War II, there was a commitment by the government to ensure that the Great Depression would never happen again. In 1946, the United States Congress passed the Employment Act, which charged the federal government with a dual mandate to ensure both price stability and full employment. Later, in 1978 amid fears of rising inflation and unemployment, the government renewed its commitment to ensuring price stability and full employment with the Humphrey-Hawkins Full Employment Act.

In 2007, the world economy began to enter into the Great Recession, and unemployment rose dramatically while economic output dropped. The governments of the world certainly did act to try to counteract this recession – across the globe; trillions of dollars have been injected into the economy through various fiscal stimulus measures, direct transfers, and bailouts. But nearly a half-decade after the beginning of the 2007 Great Recession, the damage is still being felt – economic production is still below normal growth rates and unemployment is still above what is widely considered a “natural rate” of unemployment. Furthermore, even before the Great Recession when the economy was growing, there still were many Americans left unemployed.

The current failure to solve unemployment does not mean there is not a solution. Hyman P. Minsky suggested that if the private sector is unable to create jobs and the government cannot create jobs through indirect pump-priming, then the government must tackle unemployment by taking the unemployed as they are and directly hiring all those

ready, willing, and able to work, through an Employer of Last Resort (ELR) program (Kaboub 2009). Here, the government would act as a residual employer who will employ anyone who is unable to find a job elsewhere in the private or public sectors at a minimum wage. The ELR would provide the opportunity to do genuinely productive work while being trained to later take a job in the private or public sector if they so choose.

Currently, policy makers in the United States seem unable to lower unemployment rates. Instead a different policy has set in – ensuring that the deficit is kept low and that inflation does not increase. This paper will argue that the government’s current policy is unnecessary, incorrect, and an obstacle to full employment and ensuring price stability. The paper will critically assess the current level of unemployment and its social and economic costs, and will critically examine the current attempts to increase employment. Lastly, the paper will argue that the ELR program is the best way to ensure full employment and price stability, and will demonstrate how it can be implemented and financed in the United States.

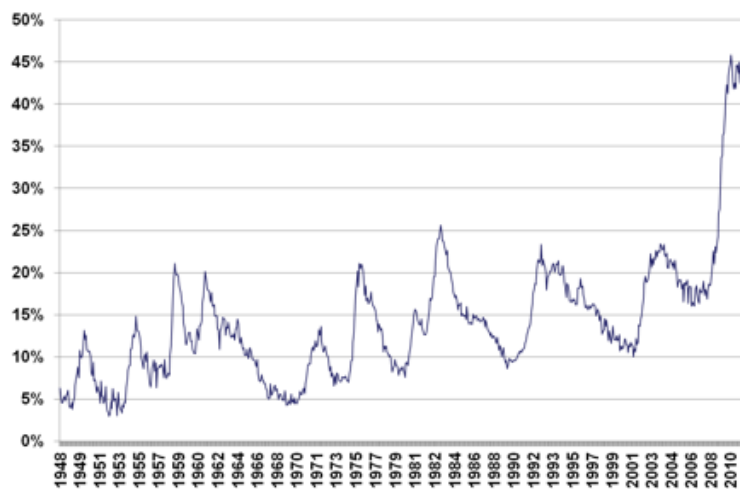
II. The Level of Unemployment

Despite no longer officially being in a recession, the economy is still not growing at a natural rate, and many people are still unable to find work. According to the Bureau of Labor Statistics (BLS), as of June 2012, the unemployment rate is still 8.2%, meaning that 12.7 million people are still out of work (BLS 2012a). Yet, the unemployment rate does not even include “discouraged workers” – those 5.5 million people who are no longer searching for work because they do not anticipate finding a job anytime soon, so

they stopped searching and are no longer counted as unemployed. The unemployment rate also excludes those who work part-time for economic reasons – those who have a part-time job, but are really seeking a full-time job and cannot find one. Add those to the discouraged workers and the unemployment statistic, and the new number – the *underemployment rate* – is at 14.9%, or 23 million people.

Furthermore, 4.6% of people (7.12 million) have been unemployed for longer than fifteen weeks (BLS 2012b), and as seen in Figure 1, the level of long-term unemployment has experienced a sharp increase as a share of overall unemployment reaching 43% in 2012.

Figure 1: Long-term unemployment as a percentage of overall unemployment (1948-2012)



Source: BLS (2012)

In the past year, these numbers have gotten better – the economy has improved and more jobs have been added. However, even when the economy is doing well, unemployment still persists. Before the Great Recession started in 2008, still about 5% of people (7.74 million) were unemployed (BLS 2008c). The same for the underemployment rates – Figure 2 shows that in the past sixteen years, at least 7% of the

population has been underemployed, and Figure 3 shows that even in economic booms, at least 0.25% of the labor force has been unemployed for so long as to become discouraged. Mainstream economists commonly accept this level of unemployment as natural for a healthy economy, citing levels of 4-5% unemployment as “full employment” (Wray 1998, 14).

Figure 2: Underemployment Rate from 1994 to 2012

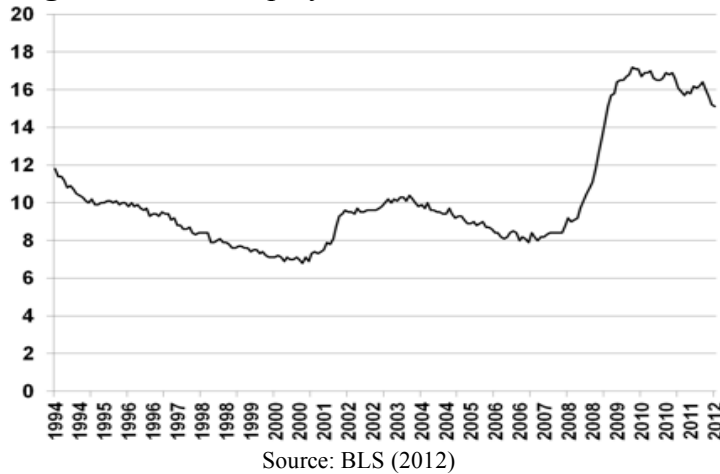
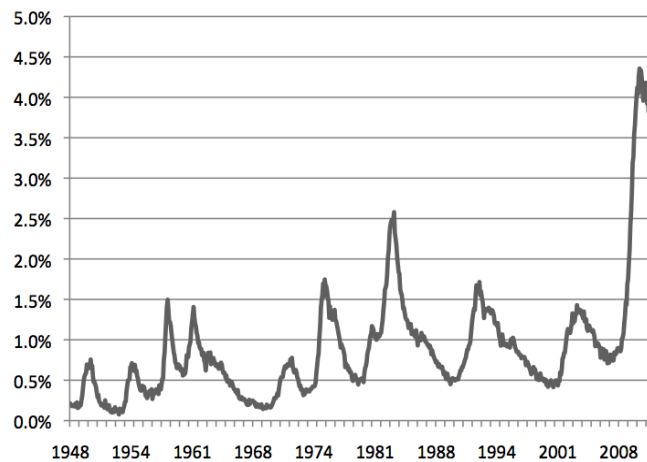


Figure 3: Not in the labor force but want a job, as % of labor force (1994-2012)



II.1. The Causes of Unemployment

Unemployment is most obviously caused by there being insufficient job opportunities for everyone who wants a job, but the reason why some people cannot find employment can be for a variety of reasons. Unemployment is classified into three main types – cyclical unemployment, structural unemployment, and frictional unemployment.

Cyclical unemployment occurs when there is insufficient aggregate demand (AD) where there are enough jobs for everyone who wants to work, and takes its name from the “business cycles” which tend to shift the equilibrium around. If the economy falls in an equilibrium where consumption drops, and consequently firm revenues decline, which reduces the incentive to produce and hire more workers, thus creating prolonged unemployment. If no one wants to buy any additional products that a firm produces, there is no point in hiring additional workers to produce more output, even if hiring the worker would have been profitable had the additional product been sold (Hargreaves-Heap 1987; Keynes 1936).

Structural unemployment occurs when there is a mismatch between the skills of the unemployed workers and the skills needed to fill job openings. For example, there may be numerous job openings in medical engineering, while those who are unemployed are instead skilled in construction, and the re-training necessary to change jobs is often very lengthy time-wise and often cost-prohibitive.

Frictional unemployment is the result of people who are in between jobs – either searching for a new job, or in the process of transitioning from one job or another. Even if there are enough jobs for everyone who wants to work and there is no mismatch of skills, it still takes time to fill the jobs with vetted candidates. Furthermore, frictional

unemployment also includes a certain amount of seasonal unemployment, which results from certain jobs being only available at certain times – such as census workers during the time of the U.S. census, mall santas during the winter holidays, or part-time and substitute teachers who do not work when school is out for the summer.

A key difference between frictional unemployment and other forms of unemployment is that frictional unemployment is typically voluntary, whereas cyclical unemployment and structural unemployment often result in prolonged involuntary unemployment. Thus, attempts to reduce or eliminate involuntary unemployment would focus on reducing or eliminating structural unemployment.

II.2 The Current Distribution of Unemployment

If it was known precisely how much of unemployment was frictional, how much was structural, and how much was cyclical, it would be much easier to create an optimal policy response to unemployment, because frictional, structural, and cyclical unemployment are all best dealt with in different ways. However, it unfortunately is not possible to get that level of precision.

On the other hand, one could still arrive at an imprecise estimation by looking at the number of job openings in the economy versus the number of job seekers. Since structural unemployment occurs when there are unfilled job openings because no unemployed worker exists with the requisite skills to be qualified for that position, the level of structural unemployment can be estimated by looking at this ratio, though some of these job openings could be open solely because not enough time has passed to successfully recruit a skilled candidate that does exist.

As of May 2012, there are 3.6 million job openings that have not yet been filled, which is not enough to match all 12.7 million unemployed – so skill mismatching can at best account for about a quarter of unemployment (BLS 2012 d). Additionally, the amount of job openings are roughly even across a wide variety of industries, which indicates that there is no one particular kind of skill that is in high demand and not currently represented within the unemployed workforce. Thus, given that frictional unemployment is a vast minority of the population, roughly 3% of the labor force, one can presume that the remaining three-quarters of unemployment is the result of cyclical unemployment, produced by a decrease in aggregate demand produced by the 2008 recession.

II.3. What is Full Employment?

Full employment is the concept of operating an economy with as many jobs as possible or desirable economically, and different economists have placed this number at different values depending on their theoretical assumptions. For instance, one might look to “genuine full employment”, which is the complete absence of involuntary unemployment or underemployment, meaning everyone who is “ready, willing, and able” to work can find a job (Wray 1998, 13-15).

Alternatively, one may be concerned with the “natural rate of unemployment”, where there is an equilibrium between labor demand and supply, or with the “non-accelerating inflation rate of unemployment” (NAIRU), which is the maximum amount of employment that can be provided without causing accelerating inflation.

Some economists argue that the current market equilibrium represents as many jobs as can be currently provided, because the supply of jobs and demand for jobs are in

equilibrium. However, given that people are still unemployed, this paper argues that we can do better with an ELR program, and move toward genuine full employment. By ensuring that job opportunities exist for anyone who wants one, that training is provided, and that workers are taken as they are; the ELR program is supposed to ensure “genuine full employment” by eliminating or minimizing structural and cyclical unemployment. This paper defines “full employment” as such.

III. The Cost of Unemployment

Unemployment does appear obvious to many as an “evil”, though some may insist that it is a necessary one. However, the cost of unemployment is far more reaching than the sad fact that many Americans do not have enough money to make ends meet. The cost of unemployment is also borne out economically with idle labor; cost of welfare; psychological and social costs to the unemployed and their families; increased crime rates; and an overall negative loop that drags the economy down, when it could be pulling the economy up in a positive cycle.

III.1. Idle, Untapped, and Depreciating Labor

At the most basic level, unemployment represents idle labor that is being unproductive, and will remain unproductive until a job can be found, which may take more education and training. Furthermore, while unemployed, whatever skills the person has remain unused and tend to degrade (Darity 1999; Darity and Goldsmith 1993; Junankur and Kapuscinski 1992). This means that unemployed labor represents lost productivity for the economy that will continue to decrease the longer the person is unemployed. Only by providing this person with an opportunity to work could this

productivity be tapped, and with better education and job training, such productivity could even be increased.

III.2. The Cost of the Welfare System

Not only does idle labor mean we are losing the potential productivity they could have added to the system, but for largely humanitarian reasons we currently pay unemployed people small sums of money, called welfare, to make sure they are able to survive. While welfare is very important for humanitarian reasons, it adds even more drag to the economy, essentially paying people to be unproductive.

If an ELR program was enacted, it would be expected that most people formerly on welfare would opt to join the ELR program instead, and thus while the government would pay ELR wages and benefits, it would no longer have to pay welfare benefits (Wray 1998, 124). The savings from not paying welfare is calculated to be approximately \$150 billion from unemployment benefits and \$100 billion from food assistance, making for at least \$250 billion in savings from welfare alone (Kaboub 2012).

III.3. Psychological and Social Costs to the Unemployed

However, just like there are humanitarian reasons to make sure people have enough money to afford necessities, either through welfare or a stable wage, there are humanitarian reasons to directly ensure that people have access to a job – being unemployed is more than just a lack of productivity, but represents a substantial social and psychological burden, and amounts a social ill. This is one of the reasons why the United Nations chose to include the right to work in its Declaration of Human Rights (Harvey 2004).

After the recession, enough people have had either direct experience with unemployment, or know someone who has been unemployed, and been able to witness the anxiety and stress of no longer having a safe source of income. Unemployment has been associated with poor mental health, such as depression, loss of self-esteem, and an increased chance of getting sick (Broom, *et al.* 2006; Dooley and Prause 2004; Forstater 2006; Kennedy and McDonald 2006). Also unemployment reinforces feelings of self-loathing and self-pity (Harvey 2002) and can put the person at a much greater risk of suicide (Forstater 2006).

These psychological and social burdens to the unemployed also occur to the underemployed, and the direction of causation has been found to both go from poor health to underemployment and from underemployment to poor health, creating a negative vicious cycle (Dooley and Prause 2004). Furthermore, unemployed people are often socially marginalized for being “lazy” and “unproductive” even when searching for a job in vein, and are forced to be dependent on the assistance of others, generating a feeling of isolation and lost freedom (Cook, *et al.* 2008, 58-59). Further feelings of isolation can occur from the loss of social and professional contacts that occur in the workplace (Darity 1999, Sen 1997).

III.4. The Cost of Crime

The inherent instability of being unemployed and having no stable income can also mean that people are more likely to turn to crime in order to generate their own income and make ends meet. The social and economic exclusion that comes from unemployment also re-enforces anti-social behavior (Burgess and Mitchell 1998; Darity

1999; Forstater 2006) and a rage against society (Harvey 2002), making a turn to crime more likely.

By providing people with an opportunity to make a productive living and earn a stable income, not only is the economic incentive to turn to crime less of an issue, but people are “off the streets”, so to speak, and instead turning their attention to useful and productive work. Gains from reducing crime have been estimated to be \$75 billion (Kaboub 2012).

III.5. Positive and Negative Feedback Loops

Lastly, creating full employment would be to the benefit of everyone in the economy, by replacing the current negative cycle with a positive one. More people with jobs means that more people have a stable income, and a stable income means that there is more money to be spent on other goods and services, which increases aggregate demand.

As a result, the newly employed will increase their consumption and put money back into the economy, which becomes the wages of other workers so they too can spend more, and becomes a basis for increased investment (Keynes 1936). However, persistent unemployment creates a negative cycle as people cut back their spending, reducing the amount of money spent in the economy, meaning less money is available for wages and investment, and more people are laid off.

Thus, the costs of unemployment are higher than they appear as unemployment tends to create more unemployment, and the benefits of providing employment are higher as it could provide the demand needed to create even more jobs in the private sector.

This connection between employment and the economy was found empirically – Okun’s

Law states that for every percentage point of increased employment, there will be a gain of 3% in real GNP (Tobin 1987).

IV. Creating More Employment

If unemployment is so costly – both from an economic and social perspective – why does it persist? The problems are two-fold – first, free-market capitalism is systematically unable to achieve full employment on its own, and second, the current government attempts to create employment through pump priming have proved inadequate. However, the ELR program can succeed where free-markets and current government policies have failed.

IV.1. Free-Market Capitalism Systematically Fails to Ensure Full Employment

Free markets certainly can create jobs, but they seem to never be able to create enough jobs for everyone – at no point in U.S. history has there ever been enough jobs for everyone who wants one. Within a free-market of profit-maximizing firms, a worker who is ready, willing, and able to work will only be hired if the marginal revenue they bring to the firm is greater than or equal to the cost of hiring them and paying them wages (Hargreaves-Heap 1978).

Theoretically, under neoclassical economics, if there were a surplus of workers ready to be hired, those workers would compete amongst themselves and bid down the wage rate, which makes it cheaper for firms to afford the hiring of more workers. Eventually, the wage would drop low enough so that all surplus workers are hired at a new equilibrium (Hargreaves-Heap 1978). However, this does not actually happen in reality.

According to neoclassical theory, the problem is that firms cannot continuously drop their wage – there are minimum wage laws that ensure that wages must be at a certain rate, and thus any workers unable to produce a marginal product greater than that wage will remain unemployed. Furthermore, unions often create bargains with firms to raise wages, at the cost of increased unemployment. Additionally, there are fixed-costs of conducting the actual hiring process (searching for workers, interviewing them, etc.) and orientating the workers (training programs, equipment, etc.) that create a certain cost for hiring no matter the wage provided.

However, the problems with hiring are not limited to barriers to reduced wages found within neoclassical economics. Additional problems according to New Keynesian economics arise when the market is dominated by imperfect competition, such as monopolies (Hargraves-Heap 1978). Even if a firm were to face the menu costs and drop wages, sticky prices and sticky wages would delay the onset of the new equilibrium, creating a period of unemployment, and worker productivity might further drop with wages, reducing the amount of additional workers that can be hired (Hargraves-Heap 1978).

Keynesian economics also suggests even more enduring and prominent problem for employment generation within free-market capitalism – eventually a firm might run out of demand for its products, and thus any additional workers hired, regardless of their wage, would simply be producing things that nobody will buy, and thus could not be profitable (Hargraves-Heap 1978; Keynes 1936). Thus in order for a firm to hire new workers, it needs increased demand for its products, but product demand decreases while the economy is in a recession, because recessions lead to negative consumer expectations,

which leads consumers to decrease their consumption and increase their savings. This new situation of decreased demand further depresses businesses, leading to even more negative expectations, creating a negative cycle of declining product demand and worker layoffs (Kaboub 2008a).

This gives rise to the “business cycle” – the economy may eventually return to equilibrium with more employment opportunities in the long-run, but when aggregate demand decreases and continues on a downward cycle of negative expectations, the population is in for an employment “dry spell” that can last for years. Worse yet, the new equilibrium wage may not be enough to make up for costs of living, and there might simply be humanitarian barriers to free-market results.

IV.2. The Inadequacy of Current Government Attempts to Solve Unemployment

In response to these “dry spells” and humanitarian barriers, and in recognition of Keynesian economics, the United States federal government has frequently attempted to drum up employment by stimulating more aggregate demand via increased government spending. The intention is that if consumer expectations are negative and private consumption and investment are falling, the government can make up the difference by spending dramatically more, hopefully pushing the economy upward again and generating positive expectations that lead to recovered private consumption and investment.

Most notably in response to the 2008 Great Recession was George Bush’s \$700 billion TARP and Barack Obama’s \$787 billion Recovery Act, or a commitment of over \$29 trillion by the Federal Bank in the form of loans and asset purchases (Felkerson 2011). The goal of all these money injections was to use government spending to pump

prime and boost aggregate demand, thus ensuring that firms would both have the money and product demanded needed to ensure they would hire the unemployed workers.

The stimulus solution was undoubtedly successful at ensuring that unemployment did not go off the rails to financial Armageddon, but despite the billions and trillions of dollars, the federal government was still unsuccessful at returning the economy to the “natural” rate of unemployment, let alone full employment, even after a period of several years, because the government pursued a policy of stabilization and preventing continued downturn rather than fostering recovery, leading to a stagnation.

Most prominently, two of the three bailout efforts – TARP and Federal Reserve Bank injections – were focused on allowing banks to recapitalize their balance sheets and stop the flow of bankruptcy, yet had no requirement that these banks engage in productive lending. As a result, these banks currently sit on trillions of dollars of excess reserves that are not being lent to those in the private sector, which is preventing the recovery of investment growth.

Of the money that was designed to promote employment – President Obama’s \$787 billion Recovery Act – pursued very few policies that put people directly to work, like developing infrastructure, and instead focused on indirect incentives, such as tax cuts. However, tax cuts do not work to create jobs in periods of severe economic recessions, because as long as declining aggregate demand and negative consumer expectations exist, consumers will want to save the money instead of spending it. Furthermore, firms will not want to take advantage of tax cuts to expand their businesses and increase investment if they do not have additional demand for their products or expectations of increased profit from doing so.

IV.3. The Employer of Last Resort Solution

While the failures of pump priming to reduce unemployment are troubling, there is a much more common-sense and effective approach to solving unemployment – if the problem with unemployment is that there are not enough jobs for all those ready, willing, and able to work, the simple solution is to create more jobs. Instead of focusing on indirect efforts with the hopes of convincing firms to add more jobs or consumers to spend more, the government should instead focus on directly adding more jobs to the economy.

Consider “The Tale of 100 Dogs and 95 Bones”:

In a yard, 95 bones are buried, and 100 dogs are trained to hunt for these bones, dig them up, and bring them back to their respective owners. After the dogs go out and hunt, 95 of the dogs come back to their owners with a bone, but five of these dogs come back with nothing. In response, the owners keep training their dogs harder, but no matter how well the dogs are trained, how much they are rewarded or punished, there always are five dogs that come back with no bones.

The solution to “the dogs and bones” problem is to go out into the yard and bury five additional bones, so that there will always be a bone for each dog to find. This is the solution that the ELR program advocates – analogously, if the problem is that there are too few jobs for all the job hunters, the solution is to provide more jobs (CofFEE 2010).

In this program, the government acts as a residual employer who will employ anyone who is ready, willing, and able to work, yet cannot find a job elsewhere in the private or public sectors. ELR seeks to take workers as they are, provide an opportunity to make productive work that is tailored to their skills and abilities, and pay them a stable

income for their work (Wray 1998, 124). The main goal of ELR would be to prepare the worker for work outside the ELR; the program would also seek to provide both formal and on-the-job experiential training to these workers so they would be able to get a job outside the ELR program in the public or private sectors (Wray 1998, 126-127).

ELR would act as a buffer stock “store of labor” – by agreeing to hire every worker at the stated wage, ELR would end up creating an infinitely elastic demand for labor (Minsky 1986). The jobs in the ELR program would not be permanent, however – profit-motivated private and public sector companies would be able to use the ELR as a stock of trained, skilled, reserve labor to hire from when they need to expand their workforce. The size of the ELR would then fluctuate counter-cyclically, increasing to take on the recently unemployed in a recession with massive layoffs, and decreasing as the economy expands and more job opportunities are created in the public and private sectors (Wray 1998, 135).

The ELR is not a “make work” program – there would be performance standards for the work being done, and the work would be designed to be meaningful, genuinely productive, and specifically designed to train and educate the person for work outside the ELR (develop transferable skills). The difference between ELR jobs and jobs offered in private and public companies is that there would not be an expectation that the work done is profitable in the monetary sense – rather ELR exists for the long-run productive benefit of the work being done, for the reduction of social costs associated with unemployment generally, and for the humanitarian reasons of ensuring people have access to a stable livelihood (Wray 1998, 124).

Additionally, the ELR seeks to make some leeway by taking potential workers as they are and giving them jobs suited to their skills and abilities, and thus would be accommodating as best as possible to various disabilities or handicaps, and even accommodating to those with interpersonal skills such that they are unable to work with others. However, if job standards are continually not met, there may end up being no option but to expel the person from the ELR program and move him or her to welfare.

The kinds of jobs provided to ELR workers and the way the ELR is specifically implemented – whether centralized in the federal government, decentralized to state or local governments, used to pay for people to volunteer at non-profit organizations, or some combination of the three or other ideas – are numerous, and no ELR program need be tied down to these specifics (Wray 1998, 139). ELR workers could be helping build and maintain both interstate and intrastate infrastructure, help clean up neighborhoods and other areas, assist with public services like education or public safety, perform other public services like garbage or recycling, or even work in arts or academic research (Wray 1998: 142-143).

Lastly, the ELR program is not slavery – no one is forced to work in such a program – and is not designed to replace welfare, but to supplement it. The expectation is that many people would voluntarily leave welfare to work for the ELR, and those that remain unwilling or unable to work may need to continue on welfare (Wray 1998, 124).

IV.4. What the ELR Does For Unemployment

By hiring all those ready, willing, and able to work, ELR would end involuntary unemployment, as all those who do not have an ELR job would be willingly and purposely outside the labor force. While business cycles would still exist, there would be

no more cyclical unemployment, because all those who are laid off could immediately seek a job in the ELR program.

The ELR program would also spell the end of structural unemployment, as those who do not have the skills to fit into a job in the public or private sectors could seek an ELR job that takes them as they are and is tailored to their specific skills, with an added opportunity to learn new transferable skills that could help them find employment in the private sector. Furthermore, ELR would provide workers on-the-job training and could stay informed of the skills that are in high demand and not currently matched by the labor market, and seek to train more workers to have those specific skills.

What the ELR cannot do, however, is end all frictional unemployment – no matter how effective ELR is, workers will still not transfer jobs instantaneously, so they still will be out-of-work for short periods of times while in-between jobs. However, since ELR will accept everyone ready, willing, and able to work, the transition would be much shorter as there would be no need for job searching. Any additional job searching for a job outside the ELR could be done while voluntarily unemployed or while working part-time in ELR. The ELR program could perhaps even be set up to employ people to search for a job elsewhere, and provide them with the education and training needed to do so (Wray 1998, 126-127).

The ELR program would end up providing a floor for wage, benefits, and workplace satisfaction – if other businesses wanted to hire workers, they would have to compete with the ELR program, by providing more attractive wages, benefits, and/or workplace environment.

V. How to Pay for an ELR?

The ELR program is an effective and attractive option for full employment, but all government policy proposals come at a cost – how much would it cost the government financially to implement an ELR program? Critics of an ELR program might acknowledge that such a program would indeed be desirable at solving unemployment, but is just too expensive and unaffordable, especially given the current budget deficits.

However, the ELR program, when analyzed in light of the cost savings it will produce, is actually no more expensive than the current attempts to solve unemployment, and would have broken the federal budget no more than Obama’s stimulus package already has. Moreover, these concerns about the ballooning deficit are misplaced and counter-productive in light of functional finance theories.

V.1. The Cost of the ELR Program

Since ELR promises to hire all those who ask for work, the cost of operating the program will depend on how high the wage to be paid out will be, and how many workers are in the ELR pool at any given time. The ELR wage can be pegged to the current minimum wage (Wray 1998: 125, 128), though others have calculated the costs for an ELR that pays out a higher “living wage” and/or makes use of a tiered-wage structure (Kaboub 2012).

With an ELR wage set at the current federal minimum wage of \$7.25 per hour, 40-hour work weeks, an additional benefits package of \$10,000 per worker-year, and an estimate of \$50 billion per year in additional costs to keep the program running, the government could implement an ELR program to hire the current population of 23 million underemployed with \$626.84 billion per year.

While \$626.84 billion per year does not seem entirely unmanageable in light of several trillion being spent over the past year on economic stimulus, or several trillion per year spent on health care, the cost of ELR drops when the savings from the program are also taken into account. An income tax of 15% on this wage would recover \$2,262 per worker-year, or \$52 billion over a program that hires all 23 million underemployed, not to mention the additional income tax gathered from increased incomes when the economy recovers. Further savings from welfare and crime would amount to \$325 billion per year (Kaboub 2012). After these savings, the program ends up with a net cost of \$249 billion per year, which will drop even further as the economy grows and workers are hired out of the ELR program.

V.2. Paying Through Functional Finance

Functional finance theory argues that since the United States is a sovereign government and monopoly supplier of its own fiat currency, the U.S. can finance ELR through deficit spending (Wray 1998: 4, 123). With functional finance, sovereign governments do not finance projects with taxes or bonds, but rather finance projects through printing money (Wray 1998, 4). The purpose of taxes is to create a demand for money, since only money can pay taxes and all citizens face a mandatory tax burden (Wray 1998, 4). Additionally, the function of bonds is to give citizens the opportunity to own an interest-bearing alternative to currency, where the buying and selling of bonds can be used to manage the amount of money in the economy and stabilize interest rates (Wray 1998, 85-86).

Since the government is the monopoly supplier of money, it is impossible for the government to continuously have an overall surplus and for all citizens to meet their tax

burden, since that would require taking in more money than the government has spent. Thus government deficits represent the net public savings – when citizens decide to take in more money than they need to pay in taxes (Wray 1998, 82-83). Thus the size of deficits does not matter in functional finance theory as long as there is demand for the money the government creates, either through a need to pay taxes or a desire to hold additional money for savings or additional consumption (Wray 1998, 83). As such, the government can easily create the additional money needed to fund the ELR program.

VI. The ELR and Price Stability

While it means a lot for the practicality of the ELR program that it is relatively inexpensive and could be financed with the creation of money, ELR lends itself to another concern – that of inflation. However, an analysis of these concerns shows that not only is there little reason to suspect ELR-induced inflation, but rather an ELR program would create more price stability than currently found in the economy due to it acting as a “buffer stock” of labor. Indeed, while ELR would definitely not end all inflation, a simulation of the ELR program in the Fair model showed the ELR to help stabilize prices rather than create massive inflation (Fullwiler 2005), and adequate price rules could prevent all inflation that results from the ELR program itself (Tcherneva 2012).

VI.1. The Connection Between Unemployment and Inflation

Inflation is the rate at which the overall price level increases over time. Excessive inflation is generally undesirable because it means that the money people hold ends up being able to buy fewer goods and services – a decrease in purchasing power (Parkin

1987). However, the Phillip's Curve shows a relationship between inflation, expectations of inflation, and the unemployment rate, such that dramatically reducing the unemployment rate would predictably increase inflation (Phelps 1987). Employing people and giving them a wage would cause these new people to buy goods and services, bidding up their prices in a form of demand-pull inflation (Parkin 1987). According to the Phillip's Curve analysis, by reducing the unemployment rate to effectively zero, an ELR program could create a massive amount of undesirable inflation.

However, there are some flawed assumptions built into this unemployment-inflation trade-off mechanism— first, that the newly employed will immediately spend the vast majority of their new income, and second that the response from firms will be to raise prices rather than expand production. In reality, with the new influx of trained workers and the positive economic expectations from renewed employment, firms would typically find it easier to expand production rather than raise prices (Tymoigne 2011).

V1.2. Price Stability Through Buffer Stock

Instead of a large increase in inflation resulting from expanding employment, the ELR program has a built-in mechanism for price stability due to it acting as a buffer stock of labor. Several buffer stock mechanisms already exist for products like wool or corn – if the price of wool goes up too much, the government will start selling its own stock of wool to increase the supply, resulting in decreasing prices. Likewise, if the price of wool falls too much, the government will offer to buy wool, increasing demand and bidding the prices back up. This way, the government can ensure price stability in the wool market by buying or selling until the price is back within a tolerable range (Wray 2012; Wray 1998, 3).

The ELR buffer stock is directly analogous to this, except instead of wool the government is buying and selling labor. In an ELR program, the government offers to “buy” all labor at a certain price by promising to employ all those ready, willing, and able to work at the ELR wage. The government will then “sell” labor by allowing firms to attract workers away from ELR by offering a higher wage (Wray 2012; Wray 1998: 132, 135). The important aspect is the government letting the quantity of labor in the ELR program float according to market demand, being willing to employ all those who are currently unemployed, but also being targeted toward encouraging workers to be hired into jobs out of the ELR, so that the ELR grows and shrinks counter-cyclically (Wray 1998: 3, 94).

Just as the buffer stock for wool ensured that all available wool was purchased – either by citizens or by the government – the buffer stock for labor ensures that all labor is purchased, and thus fully employed. And just as the buffer stock for wool stabilizes the price of wool, the buffer stock for labor will stabilize the price of labor (Wray 2012). This would further serve as a price anchor where all other prices, which are controlled by market forces, will float relative to the cost of labor (Wray 1998, 3). Additionally, given how critical the price of labor is to the cost of production in determining all other prices, stabilization of labor prices will further stabilize other prices across the economy (Wray 2012).

VI.3. The One-Time, Wage-Push Inflation

Another inflationary concern is what will happen to wages under a condition of full employment. Since being fired would mean being unemployed and without stable income (in addition to facing the social and psychological stressors), the threat of being

fired is very strong, and prevents workers from being able to argue for better working conditions or higher wages. If, instead workers were secure in the knowledge that an alternative job could be found, even if it was for just a minimum wage, the threat of firing would be greatly reduced, forcing more competition among businesses to compete for labor by offering better working standards and benefits.

From a humanitarian perspective, the ability to bargain for higher working standards is actually yet another hidden benefit of the ELR program. However, the ability to use one's position as a worker with a guaranteed job could embolden these workers to also bid up wages in non-ELR firms, thus creating a cost-push inflation by raising the cost of production.

However, this concern is misguided. Any worker in a non-ELR firm will already be offered a wage higher than that of the ELR wage, or else the worker would have likely already moved out of the ELR program. Thus, any worker demanding a higher wage will be under the threat of being replaced by another worker from the ELR program who would take the better-than-ELR-wage. Indeed, with an ELR program specifically designed to train desirable workers for immediate hire, such a threat of replacement might even be scarier than that of a firm firing a skilled worker into unemployment and losing out on that ability to produce (Wray 2012). Additionally, the further a worker attempts to bargain their wage away from that offered by the ELR, the more they stand to lose if fired back into the ELR pool, so this kind of wage bargaining will be limited (Wray 2012).

Like with any increase in the minimum wage, the introduction of the ELR may create a one-time upward pressure on the wage, but this will not count as inflation

because it will not be continuous (Wray 1998, 131). While this may result in some businesses being unable to compete, the economy will still be able to recover just as it always has in response to previous increases in the minimum wage (Wray 2012). This one-time bump will also be short-lived and small compared to the additional price stability caused by the buffer stock of labor.

VII. Case Studies of Historical ELR Programs

The theoretical argument for the ELR is a complete elimination of all involuntary unemployment while maintaining greater price stability than currently found in the economy. While theoretical analysis is important, there also is a fair wealth of data about the performance of ELR programs in the field, looking at how unemployment and inflation shifted after an ELR program was actually implemented. The effects of ELR-like policies can be seen in Argentina's *Jefes de Hogar* program, the United States *New Deal*, India's *National Rural Employment Guarantee*, and France's *Professional Transition Contracts* (Kaboub 2008b). All of these programs demonstrate that the government can provide jobs and reduce unemployment without inducing price instability.

VII.1. Argentina's Jefes de Hogar

After a 1999-2002 economic crisis in Argentina, unemployment had risen to 22% and consumer inflation over 40%, in April 2002 the government implemented the *Plan Jefes y Jefas de Hogar Desocupados* (the Unemployed Heads of Households Plan), which would employ any head of household that has either a child below the age of 18, a person with a handicap, and/or a pregnant woman (IMF 2012; Kaboub 2008b; Tcherneva

and Wray 2005). The *Jefes* workers were paid 150 pesos per month for at least four hours of work a day, which was three quarters of the minimum wage (Kostzer 2008; Tcherneva and Wray 2005).

Argentina's budgeted 3 million pesos (5% of the total government budget) for the program, but by 2005 spending on the *Jefes* program was about 1% of GDP, or 1.6 million pesos, all paid from the treasury (Kaboub 2008b; Kostzer 2008). *Jefes* and associated programs employed nearly 2 million participants, close to 5% of the population and work done was productive and varied – some focused on community services, such as child and elderly care, health program support, etc.; 60% focused on small-scale construction or maintenance, such as infrastructure building, production of consumables, maintaining utilities and public buildings, microenterprise, etc.; and 4% focused on training activities, such as vocational training or going back to school (Kostzer 2008; Tcherneva and Wray 2005).

The effect of *Jefes* on unemployment was underwhelming, but still significant – having dropped unemployment from 22% to 17% in one year, and down to 12% within three years (IMF 2012; Tcherneva and Wray 2005). But the reason for involuntary unemployment persisting was clear – the program limited those who qualified for hiring, and did not actually hire all those ready, willing, and able to work. In addition to supplying employment, *Jefes* also succeeded at transitioning over 750,000 workers into non-*Jefes* jobs (Kostzer 2008; Tcherneva and Wray 2005). And while the program did not pay a living wage, the wages provided were able to reduce indigence by 25% and reduce poverty by 3% (Tcherneva and Wray 2005).

Given how dire Argentina's inflation and currency devaluation situations were, the effect of *Jefes* on stabilizing prices is somewhat unclear. However, prices and currency did stabilize within a year of introducing the program, and *Jefes* did not destabilize prices or introduce inflation itself (Tcherneva and Wray 2005).

VII.2. United States' New Deal

Starting in 1929 with a stock market crash, the United States of America plunged into the Great Depression, which lasted until 1938, and had very dire consequences for Americans. From 1929 to 1933, unemployment grew dramatically from 3.2% to 24.9% (Margo 1993). After many attempts to promote free markets and focus on balanced budgets, in 1933 President Roosevelt introduced the New Deal, where the government would create a number of programs to directly put people to work – the Public Works Administration, the Civil Works Administration, the Works Progress Administration, the Civil Construction Corps, the National Youth Administration, the Rural Electrification Administration, and the Federal Emergency Relief Administration (Kaboub 2008b; Tymoigne 2012).

On average throughout the New Deal decade, 34% of the otherwise unemployed were working for the Federal government (an average of 3 million employed each month), with the government becoming the country's biggest employer with peak employment over 4 million. However, it should be noted that like with Argentina's *Jefes de Hogar*, the U.S. federal government made no promise to hire all those ready, willing, and able to work, instead having selection requirements that varied with each program (Tymoigne 2012). By 1940, five years after the formation of the Works Progress Administration, unemployment had dropped to 14.6% (Margo 1933).

The government also moved away from menial work and took strides to ensure the work provided would be meaningful, accepting bids from states and local communities as to what projects could be implemented. The work was also tailored to be complementary to existing businesses rather than competitive, and workers were paid well, but not well enough to incentivize others to quit their existing jobs and work for the government. Most work was focused on infrastructure construction – especially building schools, parks, hospitals, tunnels, etc. – though other work was focused on community services, and even the funding of academic research and art (Tymoigne 2012).

The New Deal programs also weren't excessively inflationary – during the 1930s, the US was experiencing mild deflation, which stabilized during 1933, with very little inflation until the war (St. Louis Fed 2012). Overall, the cost of all the programs, taking into account administrative and material expenses, was an average of 2.2% of the GNP, though as high as 5.5% during the Civil Works Administration and 4% during the Works Progress Administration. If the programs were extended to hire all unemployed, it is estimated that it would have cost 14% of the GNP because unemployment was so extraordinarily high (Tymoigne 2012).

VII.3. India's National Rural Employment Guarantee

In 2005, the Indian Parliament followed its longstanding tradition of using public works projects as a poverty reduction strategy, and implemented the National Rural Employment Guarantee Act (NREGA), which promised one hundred days of employment per fiscal year to at least one unemployed adult per rural household, prepared to do unskilled manual work (Chakraborty 2007; Ghuman and Dua 2008).

Work done by NREGA workers involve the construction and development of public work projects related to further poverty reduction, such as watershed development, land generation, building roads, flood prevention, flood protection, and environmental conservation (Kaboub 2008b; Papadimitriou 2008). The total cost of the program has been estimated to be 40,000 crone (US \$7.24 billion), or 1.3% of India's GDP (Kaboub 2008b).

NREGA was not as effective as it could have been, especially given the hurdles of rolling it out in the least developed parts of India, corruption, and bureaucracy. However, the program has proved to be financially sustainable while generating supplementary employment and income for many workers, and contributed to growth in the regions in which it was implemented – generating over 1437 million person-days of work by 2008 (Papadimitriou 2008; Ghuman and Dua 2008). It's important to note that NREGA, like *Jefes* and the New Deal, is not yet a full ELR program because it does not employ all those ready, willing, and able to work, though the program is expanding in that direction (Chakraborty 2007; Ghuman and Dua 2008; Hirway 2006).

VII.4. France's Professional Transition Contracts

In December 2005, French Prime Minister Dominique de Villepin announced a plan to conduct an ELR-like program in six districts on a trial run. Inspired by the idea that the unemployed working to seek employment or training are being socially useful and thus should not be punished with the negative effects of employment. Under this program, any worker laid off from a company of less than 300 employees is eligible for a "Contrat de Transition Professionnelle" ("Professional Transition Contract" or CTP), a guarantee from the government to finance a job in the private or public sector at the same

wage as the previous job. CTP also provides individualized coaching and job training to help complement this transition to new employment (Kaboub 2008b).

CTP is financed first by unemployment insurance and companies using the services of CTP workers, and then by the French government to cover the gaps. The total cost of the program if all currently unemployed were to enter would be 70 billion Euros or 4% of GDP, which is lower than the 4.2% of GDP currently spent on unemployment compensation (Kaboub 2008b). However, the CTP program right now is still in a trial period, and not large enough to have significant effects on employment or inflation.

VIII. Conclusion

Since the 1946 Employment Act and the 1978 Humphrey-Hawkins Full Employment Act, the government has promised to follow a dual-mandate of full employment and price stability. Despite spending trillions of dollars in both fiscal and monetary stimulus, there still are 23 million people underemployed. These millions of people represent not only a tremendous humanitarian problem with the social costs of unemployment, but represent a tremendous economic problem in lost productivity, lost consumption, and degrading skills. Without action, this problem will not go away. The free market has inherent failures that will never allow for full employment, and the current stimulus plans, while functional, are not enough.

Implementing an Employer of Last Resort program in the United States would give us the opportunity to put all these people to useful, productive work at the same cost as other stimulus plans and take advantage of the economic benefits of greater

employment. This will not come at the cost of massive inflation as some critics fear, but rather will further stabilize prices by making use of the “buffer stock”.

In theory, the ELR works well to achieve full employment and greater price stability at low cost. In practice – as seen in Argentina’s *Jefes*, the United State’s *New Deal*, India’s *NREGA*, and France’s *CTP* – programs of direct employment have reduced unemployment without destabilizing prices, and in many cases stabilized prices further. The United States already spends a lot of money to reduce employment and make sure that the unemployed are able to at least barely get by. Instead, the United States should put this money toward an ELR program and get these people back to work doing productive jobs.

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