



Policy Note

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THE CASE FOR AN ENVIRONMENTALLY SUSTAINABLE JOBS PROGRAM

MATHEW FORSTATER

The job numbers in the United States and around the globe continue to look bleak. Not only are the absolute numbers dismal, but also job growth has dragged on with no hope for a substantial change in prospects. This situation supports the view that we are facing a long-term problem that requires critical and creative problem-solving responses. Since unemployment is the major cause of poverty, many of our most pressing social problems are directly or indirectly related to joblessness. I argue that not only the quantity but also the *quality* of jobs is at issue.

One reason why the unemployment problem requires creative policy thinking is the way in which employment interacts with other national and global concerns, such as the natural environment. The currently prevalent “jobs *versus* the environment” mind-set needs to be replaced with a “jobs *and* the environment” approach, but that approach presents challenges in framing and limiting the range of potential solutions. As the recent Kyoto Protocol and ongoing discussions make clear, economics can trump the environment, at least in the short term. What we need now are some serious proposals that address the complex, complicated, and interrelated issues regarding sustainable economic prosperity.

Research Associate MATHEW FORSTATER is an associate professor of economics and the director of the Center for Full Employment and Price Stability at the University of Missouri–Kansas City.

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For the past eight years, a number of colleagues and I have been involved in a project promoting a Public Service Employment (PSE) policy with the potential to address not only the problem of unemployment, but also environmental sustainability and overall job quality (Forstater 1998, 1999a, 2000, 2001, 2002, 2003, 2004). My purpose here is to introduce our proposal and provide references that elaborate more fully various aspects of it. The hope is to inspire greater discussion, debate, and research among supporters of full employment and ecological sustainability.

The Environment, Workplace, and Employment in Late Capitalism

The point of departure for my argument is that unregulated or poorly regulated capitalism is both macroeconomically unsatisfactory and environmentally unsustainable, which provides ample justification for a better policy. The key issue on the macroeconomic side is the problem of involuntary unemployment. In addition, my concern is the quantity and quality of jobs. Of course, these two aspects are related: significant unemployment means less job security, which decreases overall job satisfaction, and firms are less likely to make improvements in the workplace when jobs are scarce. An additional challenge stems from the fact that even effective conventional policy approaches to both unemployment and ecological destruction are likely to exacerbate the problems. Full employment and environmental sustainability within conventional frameworks seem to be incompatible goals.

Unemployment is not a simple problem. Involuntary unemployment can result from deficiencies in aggregate demand, as well as from structural and technological change. John Maynard Keynes (1936) demonstrated that capitalism, as a monetary production economy, is inherently demand-constrained and results in involuntary unemployment—what I call the *effective demand problem*. Even if this problem could be rectified by government policy, changes in labor supply, technologies, and the composition of final demand impose intersectoral shifts in labor and capital that are unlikely to be satisfied by market forces without unemployment and other macro maladies (Lowe 1976, Pasinetti 1981, 1993). These structural and technological obstacles to full employment constitute what I call the *structural change problem*.

Just as policies addressing unemployment can cause further damage to the environment and policies promoting environmental sustainability can exacerbate unemployment, policies addressing effective demand can exacerbate the structural change problem and vice versa. The reason for this is that the structural change problem worsens at higher levels of employment and capacity utilization, while the traditional approach to dealing with structural rigidities promotes economic flexibility through unemployment and excess capacity.

A private sector economy stimulated to full employment via Keynesian demand management will experience bottlenecks in production and other structural rigidities that result in unemployment, inflation, and sluggish growth (Lowe 1976). Furthermore, Keynesian analysis does not recognize the *functionality* of unemployment and excess capacity in capitalist economies. Firms plan reserve capacity in order to respond to market changes, which leads to excess capacity at the industry level and in the economy as a whole. Labor reserves are created in the course of capital accumulation, so unemployment suppresses wages, disciplines workers, and provides firms with a pool of workers when the economy expands. Central banks demonstrate their understanding of functional unemployment when they increase interest rates in response to rising levels of employment and capacity utilization (Pollin 2000). Therefore, solutions to the unemployment problem must address the issue of functionality.

Even if Keynesian demand management achieved full employment, it would be environmentally destructive. There are considerable obstacles to producing “green” products, using cleaner technologies, and developing and implementing alternative energy sources because competition compels firms to base their decisions on minimizing private costs. Absent a comprehensive environmental program, expanding the private sector by Keynesian stimulus measures will assure increased use of nonrenewable resources, more pollution, and the manufacture of products with short life cycles that harm the environment. Pumping up the private sector does not address the issues regarding the composition of output and the technological structure of production that are crucial for sustainability (Mitchell 2000, p. 113, n. 8).

A comprehensive and sustainable program is necessary before modern capitalist economies shift toward a sustainable path. The biophysical and ecological conditions for a sustainable economy must satisfy certain “sustainability rules” regard-

ing rates of nonrenewable and stock-renewable resource depletion and the quantity and quality of emissions in relation to local and global assimilative capacities, and must address issues such as biodiversity loss, soil erosion, and deforestation (Callenbach 1999, Holmberg et al. 1996, Lawn 2001, Prugh et al. 2000). The program initiative has to address the technological structure of production and the composition of production and consumption. The initiative will be disruptive, as there will be winners and losers—products, occupations, skills, technologies, firms, and industries may become obsolete and be replaced by more competitive counterparts in a dynamic setting. The structural and technological transformations will exacerbate the structural change problem, which is already a significant challenge in the absence of major environmental policy programs. Furthermore, the absence of an effective full-employment program during the initiative will likely exacerbate the unemployment problems of capitalist economies.

The approach to unemployment needs to address both the effective demand and structural change problems, including the functionality issue, and be compatible with environmental sustainability. The question is whether *flexible, sustainable full employment* is possible. I believe that a PSE program can be designed to promote flexibility and sustainability, and to serve as a vehicle for social policies that also improve the workplace.

The Public Service Employment Program

The PSE program that I propose has been referred to as an “employer of last resort” or “job guarantee” government program (Wray 1998, Mitchell 2000). The federal government would offer a PSE job to anyone ready and willing to work for a basic PSE wage-benefits package. Program expenditures would be permitted to increase the size of the federal government’s budget deficit; i.e., the budget would be managed according to the principles of functional finance (Lerner 1943, Nell and Forstater 2003). This approach requires a “modern money” system, i.e., a national fiat currency not fixed to a commodity or another country’s currency (no gold standard, currency board, “pegged” currency, or monetary union); in other words, a floating exchange rate regime.

By creating an infinitely elastic demand curve for labor, the PSE program acts as a strong countercyclical fiscal stabilizer—the deficit grows when the economy contracts and

shrinks when the economy expands. Aggregate demand is maintained at full, or nearly full, employment, with only the proportion of PSE to private and regular public sector employment changing over the business cycle. The program thereby addresses the effective demand problem.

Successfully solving the effective demand problem can exacerbate the structural change problem, however. High levels of employment and capacity utilization can result in production bottlenecks and other structural problems and heighten inflationary pressures. This effect is the reason why central banks, national governments, and international organizations resist policies that promote full employment and try to maintain a certain amount of excess capacity and a reserve army of unemployed by, for example, raising interest rates. Excess capacity provides additional system flexibility and enables capital accumulation that is otherwise foregone due to structural rigidities. As noted earlier, a reserve army of unemployed helps to suppress wages, discipline workers, and provide a pool of labor during an economic expansion.

Unlike traditional Keynesian demand management, the PSE approach also addresses the structural change problem and recognizes the functionality of unemployment. Offering the unemployed jobs in the PSE sector permits full employment without the rigidities associated with full employment in the private sector. PSE program activities can be designed to avoid structural bottlenecks, while the program itself maintains a “reserve” of labor for the private sector without the social and economic costs of unemployment and thus addresses the functionality issue. In fact, the program, by maintaining and enhancing skills and knowledge, may perform this function more effectively than a reserve of unemployed, which leads to de-skilling and, perhaps, more unemployment.

In terms of the relative bargaining power of capital and labor (e.g., how unemployment impacts wages and discipline), a PSE program can affect both sides of the negotiating table. Workers will always have the option of taking a PSE job, while firms will always have the option of hiring from the PSE pool. As explained below, a PSE program can be designed to promote better wages and working conditions.

Public Employment and Environmental Sustainability

There are two important ways that a PSE program can promote environmental sustainability. First, since PSE activities do not seek profits, the activities are designed and evaluated according to social, macro, or environmental efficiency criteria rather than cost-minimizing, “efficiency” criteria of the private sector. My suggestion is akin to E. F. Schumacher’s (1973) “appropriate technology”: more labor-intensive methods of production may make sense even when more capital-intensive methods are available. PSE activities can be designed to use fewer natural resources, cause less pollution, and reduce ecological damage. Even if the activities were environmentally neutral, the outcome would be more sustainable than a private sector stimulated to full employment. Moreover, PSE activities can be designed to perform environmental services. For example, a Green Jobs Corps could sustain the ecology in a variety of ways: community and industrial recycling, improved insulation for residential and commercial structures, carpooling, rooftop gardening and urban landscaping, solar energy applied to the public infrastructure (e.g., streetlights, schools, construction warning signs, billboards), monitoring and enforcement, environmental education, and research support (*see* Forstater 2002, 2003 for an expanded discussion of these ways).

Most activities do not require highly specialized skills, and the “learning by doing” effects could be considerable, as skills acquired by participants could be applied in the private sector, and this succession would further promote sustainability. In addition, increased awareness of environmental and ecological issues by participants and the public would change consumption patterns, which is vital for long-term sustainability.

Public Employment and the Workplace

A PSE approach to full employment and price stability can serve as the basis for social policy in the workplace, particularly when it comes to the issues that have been difficult to influence through direct legislation. To understand how this might work, consider that workers would always have the option to take a PSE job. Now imagine what would happen in a country like the United States, which lacks universal health care, if the PSE wage-benefits package included health insurance. Market pressures would encourage employers in the private sector to match the package or compensate employees in

another way, such as with higher salaries or greater opportunities for career advancement. The alternative is that employers risk losing their workers to the PSE program.

Similarly, since the PSE wage would be the de facto minimum wage, an increase in the PSE wage would pressure private firms to offer higher wages or other compensation. The same rationale holds for child care, worker health-and-safety issues, administration and grievance issues, and virtually every aspect of the workplace. As a benchmark for the economy, PSE employment would increase the quality of private and public sector jobs.

Functional Finance and Ecological Tax Reform

A PSE program based on the principles of functional finance can be combined effectively with ecological tax reform to further environmental sustainability. The functional finance approach to budgetary policy is appropriate for a “modern money” economy (Forstater 1999b, Nell and Forstater 2003). Modern money is state fiat (Chartalist) money that operates with flexible exchange rates and is not backed by a commodity or tied to another currency (Lerner 1947, Bell and Nell 2003). Functional finance, as formulated by Abba Lerner (1943), means that government spending, lending, borrowing, taxing, buying, and selling should be judged only by the *effects* of such actions on the economy and society, rather than by the tenets of “sound finance.” No particular relationship between government spending and tax revenues, for example, is good or bad independently of a fiscal stance’s effect on the economy. The effect of a budget deficit depends on the economic conditions at the time and the goals of society.

It has been shown that under a modern money system, neither taxes nor bonds finance government spending (Bell 2000), but these options have other purposes. The purpose of taxation is “its effects on the *public* of influencing their economic behavior” (Lerner 1951, p. 131, original emphasis). The purpose of bond sales is to manage bank reserves and short-term interest rates (Lerner 1943, p. 355).

Taxes are intended to modify two broad categories of behavior. First, taxes (and the requirement that government currency satisfy tax liabilities) create a demand for state money. This is what is meant by a “tax-driven money” system (Wray 1998). People accept state currency in exchange for goods and services (or as a means of settling debt) because

they need to pay taxes or know that others who need to pay taxes will accept it, and so on. Second, taxes modify undesirable behavior when they are levied on unhealthy products or technologies in order to discourage people from purchasing items or engaging in certain activities. This kind of tax is *not* intended to raise revenue, but to influence behavior. Likewise, tax credits or subsidies are also intended to influence behavior.

Ecological tax reform (including subsidies, quotas, and other incentive-based regulations) fits very nicely into the functional finance framework. An ecological economist's distinction between money (accounting information not subject to the laws of physics) and real resources (which are subject to biophysical limits) is also consistent with the functional finance perspective (Daly 1996, pp. 178ff), although some "sound finance" conclusions are not consistent with functional finance.

Ecological tax reform begins from the premise that current tax and regulatory structures of most modern countries are not consistent with ecological sustainability. Current taxes tend to discourage behaviors that should be encouraged and vice versa. For example, taxes on income and employment discourage work and job formation, while low tax rates and subsidies for resource extraction and "dirty" technologies encourage pollution and resource depletion. In some cases, taxes or tax breaks may encourage the right behavior but are insufficient, or need to be coupled with complementary policies, to produce a comprehensive effect. A functional finance approach to ecological tax reform could begin with the elimination of federal payroll and income taxes and the adoption of certain property taxes. Taxes, tax credits, subsidies, quotas, licenses, low-interest loans, and other regulatory policies could penalize unsustainable behaviors and reward green ones.

This is not the place for a comprehensive outline of ecological tax reform, as functional finance and ecological tax reform are discussed in detail elsewhere (Forstater 2002, 2003). My objective is to encourage ecological tax reform, as outlined above, and to rid proposals of "sound finance" principles. Integrating functional finance and ecological tax reform would assist in the shift to a path where both full employment and ecological sustainability are possible.

Conclusion

Modern capitalism fails to provide full employment, enough high quality jobs, or ecological sustainability. These problems are not going to go away, but will likely become progressively more difficult to cope with and to solve. Unemployment and underemployment are responsible for many of our most pressing economic and social problems, while degradation of the natural environment threatens human survival itself.

A PSE program based on principles of functional finance can be designed to address these problems, and I have outlined some of the logic behind such a program. It is imperative that economists earnestly explore the possibilities for an economically and ecologically sustainable society. Now is the time to discuss and debate policies that address the critical issues concerning the environment, the workplace, and employment.

References

- Bell, Stephanie. 2000. "Can Taxes and Bonds Finance Government Spending?" *Journal of Economic Issues*. Vol. 34, No. 3, pp. 603–620.
- Bell, Stephanie, and Edward J. Nell, eds. 2003. *The State, the Market, and the Euro: Chartalism versus Metallism in the Theory of Money*. Cheltenham, U.K.: Edward Elgar.
- Callenbach, E. 1999. "Ecological 'Rules' of a Sustainable Society" in T. Inoguchi, E. Newman, and G. Paoletto, eds., *Cities and the Environment: New Approaches for Eco-Societies*. New York: United Nations University Press, pp. 17–29.
- Daly, Herman. 1996. *Beyond Growth*. Boston: Beacon Press.
- Forstater, Mathew. 1998. "Flexible Full Employment: Structural Implications of Discretionary Public Sector Employment." *Journal of Economic Issues*. Vol. 32, No. 2, pp. 557–563.
- . 1999a. "Public Employment and Economic Flexibility." *Public Policy Brief No. 50*. Annandale-on-Hudson, N.Y.: The Levy Economics Institute.
- . 1999b. "Functional Finance and Full Employment: Lessons from Lerner for Today." *Journal of Economic Issues*. Vol. 33, No. 2, pp. 475–482.
- . 2000. "Full Employment and Economic Flexibility." *Economic and Labour Relations Review*. Vol. 11, supplement, pp. 69–88.

- . 2001. “Life-Sustaining, Life-Enhancing Employment: Public Service as the Center-Piece of a Humanistic Post Keynesian Economic Policy Program.” CFEPS Working Paper No. 15, August. Kansas City: Center for Full Employment and Price Stability.
- . 2002. “Full Employment and Environmental Sustainability” in E. Carlson and W. F. Mitchell, eds., *The Urgency of Full Employment*. Sydney: Centre for Applied Economic Research, pp. 159–174.
- . 2003. “Public Employment and Environmental Sustainability.” *Journal of Post Keynesian Economics*. Vol. 25, No. 3, Spring, pp. 385–406.
- . 2004. “Green Jobs: Addressing the Critical Issues Surrounding the Environment, Workplace, and Employment.” *International Journal of Environment, Workplace, and Employment*. Vol. 1, No. 1, pp. 53–61.
- Holmberg, J., K. H. Robert, and K. E. Eriksson. 1996. “Socio-Ecological Principles for a Sustainable Society” in R. Costanza, O. Segura, and J. Martinez-Alier, eds., *Getting Down to Earth: Practical Applications of Ecological Economics*. Washington, D.C.: Island Press, pp. 17–48.
- Keynes, John Maynard. 1936. *The General Theory of Employment, Interest, and Money*. New York: Harcourt.
- Lawn, Philip A. 2001. *Toward Sustainable Development*. Boca Raton, Florida: Lewis Publishers.
- Lerner, Abba. 1943. “Functional Finance and the Federal Debt.” *Social Research*. 10, pp. 38–51.
- . 1947. “Money as a Creature of the State.” *American Economic Review*. Vol. 37, No. 2, pp. 312–317.
- . 1951. *The Economics of Employment*. New York: McGraw-Hill.
- Lowe, Adolph. 1976. *The Path of Economic Growth*. Cambridge: Cambridge University Press.
- Mitchell, William F. 2000. “The Job Guarantee in a Small Open Economy.” *Economic and Labour Relations Review*. Vol. 11, supplement, pp. 89–116.
- Nell, Edward J., and Mathew Forstater, eds. 2003. *Reinventing Functional Finance*. Cheltenham, U.K.: Edward Elgar.
- Pasinetti, Luigi L. 1981. *Structural Change and Economic Growth*. Cambridge: Cambridge University Press.
- . 1993. *Structural Economic Dynamics*. Cambridge: Cambridge University Press.
- Pollin, Robert. 2000. “The ‘Reserve Army of Labor’ and the ‘Natural Rate of Unemployment’”: Can Marx, Kalecki, Friedman, and Wall Street All Be Wrong?” in R. Baiman, H. Boushey, and D. Saunders, eds., *Political Economy and Contemporary Capitalism: Radical Perspectives on Economic Theory and Policy*. Armonk, N.Y.: M.E. Sharpe.
- Prugh, Thomas, Robert Costanza, and Herman Daly. 2000. *The Local Politics of Global Sustainability*. Washington, D.C.: Island Press.
- Schumacher, E. F. 1973. *Small Is Beautiful*. London: Blond & Briggs.
- Wray, L. Randall. 1998. *Understanding Modern Money: The Key to Full Employment and Price Stability*. Cheltenham, U.K.: Edward Elgar.

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