

## **Nuclear Weapons, Nuclear Power, and the 21<sup>st</sup> Century Economy**

*Remarks of Andrew Lichterman, Senior Research Analyst, Western States Legal Foundation, at the workshop “deadly Connections: Challenging Nuclear Weapons, Nuclear Power, and Climate Change, September 20, 2014.*

On those occasions when people talk about global warming and nuclear weapons at the same time, the focus usually is on their effects. Burning immense quantities of fossil fuels and nuclear warfare are two ways that the human species can do enough damage to the ecosystems we depend on to threaten not only our own survival but that of most life on this planet.

But at the same time, the threats posed to humanity by global warming and nuclear weapons share common causes. Each is a predictable product of an economy and society dependent on endless material growth powered by rapidly expanding energy supplies, driven for centuries by ruthless competition among authoritarian organizations of ever increasing size.

The roots of the nuclear dilemma run deep. Our technologies have been shaped by the central role war making has played from the early days of Western modernity. No less important has been the race to control and extract the most easily available forms of concentrated energy, fossil fuels. As the historian Charles Tilly wrote, this has been true from the beginning of the development of the kind of nation-states that have come to dominate the planet,

“Power holders' pursuit of war involved them willy-nilly in the extraction of resources for war making from the populations over which they had control and in the promotion of capital accumulation by those who could help them borrow and buy. War making, extraction, and capital accumulation interacted to shape European state making.”<sup>i</sup>

The connection between the capacity to make wars and the extraction of resources, particularly fossil fuels, remains strong. The U.S. military is the largest institutional consumer of oil in the world, using over 100 million barrels per year—much of it in operations aimed at assuring the continued flow of oil to global markets.<sup>ii</sup> As Tilly put it, “War makes states...”<sup>iii</sup> And war making has played a leading role in the kinds of science and technology that the victors have chosen—the kinds of science and technology that have survived and prospered up to now.

The World Wars of the 20th century constituted leaps forward in technology and social organization in the most powerful states. The world was profoundly changed by World War II and the permanent state of war engendered by the interaction of the political changes it wrought and the technologies and institutions it spawned. The Bomb is only a leading instance of the direction and magnitude of technological change, and military industrial complexes only examples of the power and social character of the kind of organizations that have come to dominate the modern world.

These organizations extract a privileged wealth stream for their upper echelon inhabitants from the rest of an increasingly globalized economy, using particular combinations of technology, ideology, and organizational technique. Forming alliances across the boundary between the private sector and the state is one of the most common organizational techniques, giving rise to constellations of power of which military industrial complexes are only a leading

example. Today, nuclear power and high technology weapons are elements in and help to sustain a global circulation of trade and investment devoted to the production of goods and services that only a fraction of the world's population can afford to buy. Large organizations, whether "public" or "private," provide services and buy and sell mainly to each other or to "consumers" who are the upper-echelon inhabitants of those same organizations, the technocrats, bureaucrats, managers, and professionals who constitute the modern middle class.

This dynamic pushes much of the world's population towards the margin, with luxury crops, resource extraction, and now biofuels driving hundreds of millions off the land into burgeoning urban slums. Yet development efforts continue to center on centralized energy and transportation infrastructure designed to serve global supply chains for up-market consumer goods, with urban areas world-wide competing to stay or become stable nodes in the top-tier economy.

In this kind of world, weapons and military services will be a growth industry. High tech weapons and nuclear technologies provide an effective strategy for sectors of national elites and of the professional and managerial classes to carve out a secure place for themselves in an increasingly insular top tier economy. They provide privileged access to their own country's resources, capital largely without competition in capital markets, and a development context that can be shielded from foreign competition. The tools of nationalism and fears of foreign "others"—easily inflated with sophisticated propaganda techniques-- facilitate the extraction of wealth from the rest of society. National security secrecy prevents scrutiny of nuclear enterprises that whether in first generation nuclear powers or post-colonial states have been rife with technical problems, corruption, and widespread, intractable environmental impacts. In this context, the connection between nuclear power and nuclear weapons is a feature, not a bug. Nuclear technology, with its vision of near-magical, limitless power (an image its purveyors energetically promote), casts a positive aura over other big, centralized high-tech development programs that are profitable for elites, but have little or even negative value for much of the population in an ever more stratified world.<sup>iv</sup>

We need to keep this background in mind in forming our strategies. For example, one of the most common ways to try to forge cooperation between be working on climate change issues and those in the peace, disarmament, and anti-war movements is to push to replace military-industrial complex jobs with "green jobs." Let's consider this strategy against the background of the starkly stratified global economy I have sketched out.

Perhaps the most consequential fact for an individual's economic fate today is whether one has a relatively stable, long-term place within one of the organizations that constitute the top-tier of the economy. And for large organizations, the minimum requisite for a secure place in that upper tier is a strategy that allows them to minimize competition to the degree of extracting rent-like returns from the rest of society. This now is acknowledged even in the economic mainstream. Nobel prize winning economist Joseph Stiglitz writes that

"we have a political system that gives inordinate power to those at the top, and they have used that power not only to limit the extent of redistribution but also to shape the rules of the game in their favor, and to extract from the public what can only be called large 'gifts.' Economists have a name for these activities: they call them rent seeking...."<sup>v</sup>

The reigning standard for what constitutes a good investment has become the capacity to extract these kinds of returns. Organizations that have developed strategies, which enable them to do so are unlikely to abandon them easily. High tech armaments industries, including nuclear weapons establishments, are a case in point. ([The fossil fuel and nuclear power industries have their own long- entrenched strategies as well.])

There are practical difficulties in converting many kinds of military research and manufacturing facilities to civilian uses—a topic that would require a separate discussion. But the most important factor, I think, is that the organizations of the military-industrial and nuclear complexes have economic strategies dependent on combinations of technology, ideology, and organizational technique that are not easily redirected to other pursuits. They will be reluctant to abandon the favorable position they have carved out in order to compete with other powerful sets of organizations. The arms makers don't want to be competing for capital and customers with wind turbine or solar panel or rail car manufacturers in China or even lower cost emerging industrial regions.

This is so not only for investors and top managers in nuclear and military industries, but for professional and managerial workers and skilled production workers who have fairly secure positions. Workers in the arms industries, and particularly in aerospace, make significantly more than average American workers. Their relatively privileged position depends, in turn, on the successful strategies of military-industrial complex organizations for extracting wealth from both U.S. and global society. One recent study found that in the U.S., aerospace and military industry workers make about \$80,000 per year, compared to a U.S. average annual wage of \$44,000.<sup>vi</sup> On the same note, the research of two leading analysts of the economic impacts of U.S. military spending, Robert Pollin and Heidi Garrett Peltier, is frequently cited by peace and disarmament advocates because it shows that military spending produces fewer jobs per dollar than other possible expenditures of public funds, such as spending on education, health care, clean energy, or even tax cuts that lead to increased spending on personal consumption. But their research also shows that military spending generates jobs that on average pay significantly more than these categories of civilian employment.<sup>vii</sup>

Those holding secure positions in military-industrial complexes are unlikely to see alternatives that provide them with a comparably privileged path forward. Their ideological strategies and their economic power provide them with ample means for defending their place in the status quo, particularly in a society like the United States where money translates seamlessly to political power.

It should not surprise us that organized workers in top-tier enclaves like the military-industrial complex side with their employers on matters of development policy and technology choice. Consider this language from an International Association of Machinists and Aerospace Workers leaflet titled “Serving our Members, Serving our Nation: The IAM and Lockheed Martin Working Together”:

“The IAM has and continues to urge Congress to increase funding for several programs that benefit Lockheed Martin directly and indirectly in the annual Defense Appropriations bill. Over the years we have successfully lobbied jointly with Lockheed

Martin's legislative representatives to add or restore funding levels for the F-16, F-22, F-35, C-130 and the C-5."

The era in which capitalist governments pursued Keynesian economic policies is over. This is likely to make it harder to pursue programs to convert particular firms or industries in the absence of a far broader program of social transformation that could assure a secure and dignified life for displaced workers. The Keynesian period," as one observer put it, was one of "mass production and mass construction of suburban space," which generated "an economic logic that valued people as workers and consumers, though not necessarily as human beings."<sup>viii</sup> But in recent decades, we have returned to a capitalism that resembles the late-19<sup>th</sup> century in some ways more than the Keynesian mid-20<sup>th</sup>. Wealth is increasingly polarized, with most of the fruits of economic growth going to a fraction of the population at the top. Much of the population outside the top-tier organizations of the global economy is viewed as surplus, valued neither as workers or consumers. The signs of this are all around us, from land and resource grabs that drive millions off the land in the new zones of neo-imperial competition in the global South to the austerity programs being imposed on populations in the countries of the old capitalist core.

The stark polarization of this post-Keynesian world makes it harder for people who have, even just for the moment, workable strategies to remain inside the top-tier economy to embrace alternatives. They also are likely to see any genuinely different vision for a path forward as utopian, because those at the top have so much money and power to keep things more or less as they are.

Here again, I think, we need re-frame the discussion so we are talking about causes, rather than focusing only on remedying effects. We aren't likely to move things much further along by asking hi-tech arms workers whether they wouldn't rather be making solar panels or wind turbines rather than delivery systems for weapons of mass destruction. Chances are most of them would. Instead, we should start the conversation by asking-- why is it that you can't choose work that contributes to a more peaceful and ecologically sustainable world without risking your family's economic future?

In times of great disparity of wealth and power, the middle positions, and the possibilities for incremental gains via "normal" politics for those in the bottom and middle ranges of society, tend to disappear. Normal politics are in large part a complex bargaining process. In times when those on top can take whatever they want, they have little incentive to bargain. This is one marker of a true crisis, unlikely to be resolved without fundamental social change.

But the depth and interdependence of the crises we face also provides an opportunity for a new and deeper conversation about the kind of social change we need. As the labor scholar and activist Sam Gindin observed,

"The polarization of options under neoliberalism provides potentially fertile organizing ground... More radical ideas now have the potential to take on a relevance that is not just ideological; as the moderate is exposed as being impractical, what does become practical is the radical."<sup>ix</sup>

It has never been clearer that when it comes to war, global warming, and economic inequality, corporate capitalism is part of the problem, not part of the solution. It's time again to start talking clearly about the need for alternatives to capitalism.

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<sup>i</sup> Charles Tilly, "War Making and State Making as Organized Crime," in *Bringing the State Back In*, edited by Peter Evans, Dietrich Rueschemeyer, and Theda Skocpol (Cambridge: Cambridge University Press, 1985), 172.

<sup>ii</sup> U.S. Department of Defense, *Fiscal Year 2012 Operational Energy Annual Report*, 2013, pp. 3 et seq;

"The theater strategy succeeds in overcoming time and distance dilemmas by creating near-continuous presence of American forces through limited forward presence, ambitious combined exercises, and focused security assistance programs. While in the region, these forces deter aggression and create immediate capabilities to respond to crises. Power projection capabilities of America's armed forces enable deployment of larger forces able to fight and win in a major theater war. These strategic pillars are underwritten by a high state of readiness to fight and win against threats that span the conflict continuum.

While threatened, America's vital interests in the region are clear and compelling. The unrestricted flow of petroleum resources from friendly Gulf states to refineries and processing facilities around the industrialized world drives the global economic engine. That flow depends on freedom of navigation through critical maritime choke points and the security of regional friends." *U.S. Central Command Posture Statement*, 1997.

<sup>iii</sup> Charles Tilly, "War Making and State Making as Organized Crime," in *Bringing the State Back In*, edited by Peter Evans, Dietrich Rueschemeyer, and Theda Skocpol (Cambridge: Cambridge University Press, 1985), 169–191, 170.

<sup>iv</sup> For an extended version of this argument, including the strategies and alliances broader pursued by the nuclear industry in the context of the campaign for the recent U.S.-India nuclear deal, see Andrew Lichterman and M.V. Ramana, "The U.S. India Nuclear Deal: Violating Norms, Terminating Futures," in Ray Acheson, ed., *Beyond Arms Control: Challenges and Choices for Disarmament* (New York 2010: Reaching Critical Will Project of the Womens' International League for Peace and Freedom), pp.58-70, also available at <http://www.reachingcriticalwill.org/resources/books/BAC/chapter5.pdf>

<sup>v</sup> Joseph E. Stiglitz, *The Price of Inequality: How Today's Divided Society Endangers Our Future* (New York: W.W. Norton, 2012), pp.31-32.

<sup>vi</sup> Deloitte Development LLC, "The Aerospace and Defense Industry in the U.S. — A financial and economic impact study," March 2012, p.15.

<sup>vii</sup> Robert Pollin and Heidi Garrett-Peltier, "The U.S. Employment Effects Of Military and Domestic Spending Priorities," Political Economy Research Institute, University of Massachusetts, Amherst, December 2011 p.6.

<sup>viii</sup> "The Keynesian period was one of mass production and mass construction of suburban space: this brought with it The logic guiding the current phase of advanced capitalism does not value people as workers or as (mass) consumers. Thus, in the last two decades there has been a sharp growth in the numbers of people that have been "expelled" from the economy in much of the world. The active expanding of a middle class in that earlier period has been replaced by the impoverishment and shrinking of the middle class." Saskia Sassen, "Expelled: Humans in Capitalism's Deepening Crisis," *Journal of World-Systems Research*, Volume 19, Number 2, Summer 2013, 198, at 198.

<sup>ix</sup> Sam Gindin, "Rethinking Unions, Registering Socialism," in Leo Panitch, Greg Albo and Vivek Chibber, eds., *The Question of Strategy*, *Socialist Register 2013* (Merlin Press: Pontypool, Wales, 2012), p.34