

Green New Deals And Military Keynesianism

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Abstract

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The world economy today is facing the conjuncture of two simultaneous crises, i.e. the deepest recession since the end of World War Two and an unprecedented world *ecological* crisis. Does keynesianism offer viable ideas to face this combined crisis, alternative to the neoliberal policymaking that has prevailed during the last thirty years?

Historically, if viewed from a longer-term perspective, the form of keynesianism that has predominated, is ***military keynesianism***, defined as macro-economic policymaking by capitalist governments aimed at stimulating aggregate demand for goods. Thus deficit spending was already applied by the British government when it competed with other European states to gain world hegemony, in the late 17th and the 18th century. Again, whereas for a limited period of time after World War Two, a civilian type of Keynesianism has 'coexisted' with military keynesianism, especially in Western Europe, - the military form of keynesianism has clearly prevailed in the era of globalization, especially in the US.

Keynesianism offers possibilities for a shift from current policymaking, but only if its mode of application is radically different from its historical modes. An ***ecological keynesianism*** needs to fulfill both a social criterion, e.g. promotion of employment, and an ecological standard, i.e. countering capitalism's inherent tendency to destroy its natural surroundings. Three examples of an ecological keynesianism initially come to mind: the state's use of transfer and investment measures so as to accelerate the shift from reliance on fossil fuels towards reliance on renewable energy; state intervention to discourage incineration of waste and to enhance reliance on recycling; and conversion of military production facilities into units which produce for the sustenance of life on earth. The significance of these shifts can be illustrated by employing a model of social reproduction that diverges from Marx's and Keynes'. Yet while an ecological keynesianism does offer ample possibilities to address today's combined crisis, - the given policymaking needs to be understood as *transitional*. A solution to the world's ecological crisis is only possible via the transition towards a stationary state, - a zero growth economy at the world level which protects the interests of the global South.

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GREEN NEW DEALS AND MILITARY KEYNESIANISM

1.

Introduction

In this essay I will highlight the potential significance of *Green New Deals*. To start, we need to be clear as to how to define our present context. The world economy today is characterized by a *conjuncture* of two crises simultaneously. On the one hand, we are witnessing a very deep world recession, the very severest one since the end of World War Two. Since the financial crisis has spilled over into an economic recession, - rates of unemployment have skyrocketed worldwide, and the numbers of people who are hungry have increased dramatically too (1). Yet although these facts in themselves suffice to speak of an exceptional situation, - the situation today in fact is far more extraordinary than is indicated by these socio-economic data alone. For we are witnessing the unfolding at the very same time of yet another crisis, - one which seems even more consequential: a rapidly escalating world *ecological* crisis, a crisis in the relationship between the world capitalist system on the one hand, and the system's natural surroundings on the other. As various reports brought out by international research groupings and centres unequivocally bring out, the process of globalisation has caused a rapid degradation of ecosystems, massive losses of biodiversity, and, worst of all, an acceleration in the process of climate change (2). Prominent climate scientists warn that unless emissions of carbon dioxide and other greenhouse gases are brought down speedily, the world within a few decades is set to witness a climate catastrophe. Never before has the world witnessed a similar kind of conjuncture, a twofold periodic/economic and structural/ecological crisis.

It is against this background that we need to discuss the meaning and potential of *Green New Deals*. The idea of a Green New Deal in the first few months of this year has quickly gained popularity, both amongst governments of central capitalist countries and among governments of emerging capitalist countries in Asia. This reflects a certain awareness of the urgency of the current situation, of the fact that extraordinary measures are required so as to cope with the risks associated with the twofold crisis (3). Yet whereas the recognition of the urgent need to take action on the issue of climate change is laudable, - the lack of a clear demarcation in the meanings of a *Green New Deal* is all too evident. Neither does one mark much effort by policymakers to place the concept in a historical context. Nor do we notice a determination to fully break with the neoliberal policies that have been in vogue through the last thirty years. In the below essay, I propose to discuss what kind of economic measures can be bracketed under the heading of a Green New Deal. Provisionally, I would like to suggest my own definition. A *Green New Deal* consists of interventions by the state, comprising both transfer measures and public investments. These measures need to fulfil both a social and a green criterion, they need to both be suited to counter rising levels of unemployment, and to counter the structural ecological crisis, human induced climate change in particular. This suggests the primacy of a new form of keynesianism. Moreover, and contrary to the way keynesianism was conceived historically, Green New Deals should not aim at unqualified resumption of exponential growth, but instead should help steer a transition towards a stationary economy, an economy without growth. Only a Green New Deal truly conceived as *transitory* can effectively help to overcome the world *ecological* crisis existing today.

2.

The History of Keynesianism in Three Phases

Let me first offer a brief, very brief overview regarding the history of keynesianism as a form of economic policymaking. From a bird eye's view, the history of keynesian policymaking can broadly be divided into three distinct phases. *First*, there is keynesianism *avant la lettre*. That's to say: long before governments of central capitalist countries discovered keynesianism, and long before John Maynard Keynes formulated his economic theory, - 'keynesian'-style state interventions had been practiced by Great Britain and other capitalist powers. Take deficit financing for instance, - one of the main ideas Keynes put forward to promote a sufficiently high level of aggregate demand for goods. The idea that governments can take recourse to budget deficits and use their access to capital resources on the financial markets to borrow money, has its roots in the experience which rising European powers gathered in the 17th and 18th century. Thus, the government of Great Britain, the principal contender for hegemony in the European system, in the 18th century frequently resorted to deficit financing and to borrowing loans from private capital owners, so as to finance its deficits. These practices were, as the father of classical economics Adam Smith saw it, directly related to the waging of war (4). And although Keynes himself only mutedly referred to these historical antecedents of his theory and largely 'glossed over' the difference between military and civilian forms of government spending (5), - a broad overview of the history of keynesianism does need to take notice of the given antecedents.

The *second* phase of keynesian policymaking started basically after World War Two, when governments of both the United States and of Western Europe's main powers commonly embraced Keynes as 'saviour', as the economic theoretician whose prescriptions would help them overcome fluctuations in the business cycle and a recurrence of the depression of the 1930s. Contrary to keynesianism *avant la lettre*, - the keynesian measures as instituted in the 1950s and 1960s were both military-related and civilian-type measures. In the case of the United States where Keynes' disciples became very active at university level (6), the application of keynesianism occurred primarily, though not exclusively, via the government's *military* expenditures. Although immediately after World War Two, the US government tried to civilianize the economy, - from the US's Korean war onwards (1949-1952) the US (once more) relied heavily on purchases of armament systems and on other orders for the US army as *key leverage* to stimulate overall societal demand. This does not mean that military allocations through each and every business cycle after World War Two have been employed as *principal* means to draw the economy from the slump and ensure that accumulation be resumed. The case of the 1990s US business cycle for instance needs to be analysed differently: this time round production of information technology, i.e. by market actors, played the main role as stimulus for the US economy. Nevertheless, - on the whole the policy practices of US governments in the second half of the twentieth century harked back to the experience of the keynesianism *avant la lettre*. Only, the application now was biased towards construction and maintenance of the US military industrial complex (7).

The case of Western Europe's big powers and their application of keynesianism during the post-World War Two period is, of course, different. Here again, Keynes' prescriptions towards supporting demand for goods were widely followed – not only in Great Britain where Keynes had given government advice for long, but also in France, in West Germany and in Western Europe's smaller countries. Governments via taxation and social expenditures transferred financial means, from people with high incomes towards members of the working class depending on low wages. They thus supported the aggregate demand for consumer goods. They also relied consciously on public investments –

investments stimulating both the demand for capital goods and consumables. For a significantly long period of time, these and other state interventions in the economy appeared effective, or partly effective, in countering recessionary risks. Yet contrary to interventions in the US case - the interventions by Western European governments on the whole were *civilian* in kind. Taxation incomes and state borrowings were used not primarily towards buying supplies for their state armies, but in order to invest in infrastructural works, and towards building a welfare state. It is not that military keynesianism was entirely absent from the European case. For instance, there was a pronounced tendency to engage in *externalized* military keynesianism, where governments tried to generate domestic multiplier effects via exports of arms. Yet on the whole, the military form of keynesianism played 'only' a secondary role and did not drive the business cycle of European economies.

It is important towards getting clarity, to recognize that the history of keynesianism did not end when neoliberalism took over the position of keynesianism as chosen theoretical framework for policymaking in the capitalist North. In fact, we need to recognize that in the 1980s, keynesianism entered a *third* phase in its evolution, a phase during which it has not been a common official reference point, but nevertheless has continued to play a major role. This is true for the US, but to some extent it counts for Europe too. On both sides of the Atlantic, a period of farreaching deregulation was initiated in the 1980s. Banks and other financial institutions were granted an increased scope to operate, and expand their dominance over the real world of production. Yet military keynesianism stayed on. This becomes immediately evident when we look at the weight of military expenditures, and its impact, on the US economy. Both during the Reagan era of the 1980s, and during the era of Bush jr., military expenditures were employed as *principal* means to stimulate the US business cycle. Combined research data - on the annual budget of the Pentagon, on war expenditures, and on hidden allocations towards the military - bring out that in the later part of Bush jr's rule these together constituted roughly *8 percent* of the US's Gross Domestic Product (GNP) (8). No European state shows levels of military expenditures that are comparably large. Yet *externalized* military keynesianism has continued to be employed throughout the era of neoliberalism, by France, the UK and other European states, so as to generate multiplier effects. In short, keynesianism does not need to be re-invented by governments of central economies. In its *military* form it has been 'with us' throughout all three historical phases of keynesianism !

3. Historical Discourse (2): Roosevelt's New Deal

There is no scope in this paper to provide a fullscale analysis of the experience of the New Deal, i.e. the measures which President Roosevelt took in the 1930s to overcome the then depression in the US economy. Yet some brief comments are called for, since the idea of Green New Deals now being embraced by policymakers worldwide obviously refers to this historical experience, at least *implicitly*. Roosevelt's *New Deal* has not been evaluated as a period of very effective government interventions. Although a partial recovery took place between the start of the depression in 1929, and the year 1937 when the US entered a new recession, the economy by the latter date had barely recovered its 1929 strength, and unemployment levels continued to be very high upto the very start of World War Two (roughly 20%). Alvin Hansen, Keynes' discipline has presented a detailed analysis of the underlying weaknesses of the *New Deal*. His assessment is largely supported by the Marxist theoreticians Paul Baran and Paul Sweezy, although there are terminological differences (9). One of Hansen's key arguments is that the *New Deal* was largely biased in favour of interventions of a 'salvaging' character. Huge amounts of capital were spent on rebuilding the

capital structure of US banks (!), and on saving railways facing bankruptcy. Significant sums were also spent on support to the unemployed, - programs such as the gruel kitchens' program and social security for the elderly and disabled sections of the working population. These measures, which can be bracketed under the keynesian heading of *transfer* payments surely were important as form of relief. But compared to them, the government's investment programs, i.e. 'public works'-programs were modest, too modest in kind. According to Hansen's figures, outlays on public works rose to \$ 940 million per annum in 1934-1940, whereas relief expenditures averaged \$ 2.243 during these six years (10). If taken together, they could not stem the trend of a contraction in the US's GNP. No matter how laudable, - from a keynesian perspective, the civilian measures of state intervention adopted during the New Deal were simply too small to be fully effective.

Nevertheless, seen from the vantage point of history, the *New Deal* did have a positive significance. Precisely since there is a tendency to claim the label of a New Deal for government initiatives taken in today's recession, - it is important to emphasize that Roosevelt's programs were overwhelmingly *civilian* spending programs. Here, we may compare the increase in the size of transfer payments made by the US government, with the increase in 'defense' expenditures during the 1930s depression. According to Baran and Sweezy's data, transfer payments rose from 1.6 % of the US's Gross Domestic Product (GNP) in 1929, to 4.6% of GNP ten years later. Over the same decade, 'defense' expenditures rose from 0.7% to 1.4% of GNP. Of the total increase in governmental expenditures during the 1930s, - 90% was civilian, the military share was only 10% ! (11) Clearly, if these data be compared with the military-oriented spending thrift as displayed by the US's government since the beginning of World War Two and in subsequent periods, there is an enormous difference. Never since has the American government returned to the spending pattern of Roosevelt's *New Deal*. All through the Cold War and the post-Cold War period, the US government has consistently devoted sums of money towards buying armaments and other army supplies that are many times larger than under Roosevelt, as a percentage of the US's GNP. Baran and Sweezy assessed military expenditures as more than 10% of GNP for the 1950s. During first decade of the new millennium they have hovered around 8%, as stated. Whereas the macro-economic weight of military spending during the 1930s was limited, - ever since its macro-economic impact has been huge. In short, the lasting significance of Roosevelt's New Deal for contemporary debates on government interventions, is that his spending program was first and foremost a non-military, civilian spending program.

4. The Need for an Ecological Keynesianism as Radical Break with Current Keynesianism

My next task, after this summary review of the history of the keynesian policymaking, is to sketch the contrast between the keynesianism which has historically dominated - and the new keynesianism which is required today in order to counter climate change and steer a transition towards a zero growth economy. For whereas from a long-term view, the overarching view bracing the centuries from the 18th through the 20th, *military* keynesianism has reigned supreme - from the perspective of today's combined periodic/economic and structural/ecological crisis there is a decisive need for a different kind of keynesianism, i.e. *ecological* keynesianism. This transition from military to ecological keynesianism requires a radical break, - not just with history, but with the policies pursued by governments of the US and other Northern countries in the context of today's combined crisis. Against the background of the financial crisis that has erupted in 2007, the Bush jr. And Obama administrations of the US have, to some extent at least, taken recourse to *civilian* keynesian

measures. Thus, the decision taken by the Republican administration of Bush jr in 2008 to allocate some 125 Billion Dollars towards non-military spending purposes. This has been followed up by decisions of the Democratic administration of president Obama to make much larger allocations in the 2009 budget towards civilian spending. These include allocations on infrastructural improvements, such as the US railway system, and money to strengthen the US educational system, But they also include allocations for the development of alternative energy (12).

And yet one wonders about the significance of these new spending programs. Compared to for instance the Reagan government which in the 1980s applied military *at the expense of* civilian keynesianism – increasing the military budget while cutting social welfare programs - , the orientation of the Obama government is different. Both its spending on the task of saving the US banking system, and on sustaining consumer confidence, are huge. And yet there is not even a minimal effort to break with the US's history of military keynesianism. While Obama during his electoral campaign in 2008 made commitments to cut spending on armaments, - since entering office he appears to have forgotten all about these pledges. First, the Annual Industrial Capability Report for 2009 (AICR) released in April indicates that the US government intends to make full use of armament purchases towards countering the recession. The AICR enthusiastically refers to arms' procurement as a 'guaranteed market', and proudly refers to the high profit levels which military corporations are reaping in spite of the crisis (13)! Again, evidence contained in the budget proposals drafted by the Office of Management and Budget (OMB) shows that the US government intends to continue *increasing* the size of official military spending not just in 2009, but all the way through 2013 and beyond (14). Hence, one can safely conclude that the Obama government is bent on using military spending for '*pump priming*', i.e. to lift the US economy from its present slump, - *and* intends to keep taking recourse to military keynesianism towards generating multiplier effects *in the longer run*.

If keynesianism is to respond to the need of the hour, it cannot 'limp on two legs' at the same time, i.e. give primacy to military spending while relocating the development of renewables to a very secondary or marginal role. On the contrary. In as much as spending on the military is *unproductive*, we need to advocate a radical break, a radical shift from such spending in the direction of spending that is entirely *productive* in kind, meaning that it purposefully aims at promoting the sustenance of human and animal life on earth. A keynesianism which compromises, which continues to employ arms' spending towards generating multiplier effects, can't be given the label of an ecological keynesianism. Hence the need to propose keynesianism not as a form of policymaking which *accommodates*, offers a little scope towards fighting climate change. What we need is a keynesianism which constitutes a *historical break*, which uses the keynesian methodology of differential taxation and state investments, towards achieving the objective of a *double transition* – the transition towards an economy which no longer relies on fossil fuels, and the transition towards an economy which no longer accumulates on a global scale. This double transition may be achieved through a program that includes at least three elements: the shift from reliance on fossil fuels towards reliance on renewables; the shift from employment of incineration - towards recycling as central method to process waste in capitalist economies; and the shift from production of social waste, of large armament systems – towards production which helps to sustain life on planet earth. Below, I will elaborate on policymaking in each area, keeping the ultimate objective of zero growth in mind.

5.

Discourse on The Marxian/Keynesian Reproduction Model

A further discourse that needs to be held before we can fruitfully discuss the application of keynesianism towards ecological ends, relates to the issue of production departments. Like his 19th century precursor Karl Marx, John Maynard Keynes believed that the functioning of the capitalist economy can be highlighted by referring to two basic types of goods that are produced. Marx referred to the well known distinction between production of the means of production (**MP**), and production of articles of consumption (**MC**). Keynes used his own terminology, speaking rather of investments in industries producing capital goods, and of investments in industries producing for consumption. Nevertheless, towards understanding business cycles, both Marx and Keynes bracketed industrial processes into two groups of sectors. Both believed that a decline in profits in the first category of sectors often forms the onset of a periodic crisis in the capitalist system (15). To this may be added the fact that neither Marx nor Keynes viewed the military sector as one playing an independent economic role in up- and downswings of business cycles. During the era of monopoly capitalism this has increasingly become an obstacle for theorisation of the hegemonic economy. More ponderously, neither Keynes nor Marx suggested a diagram which takes account of the way capitalism relates to its natural surroundings. Neither the use of nature as 'source', nor the use of nature as 'dump' or sink can be visualized on the basis of the scheme of two Departments of Production or two groups of sectors.

The limitations underlying the reproduction schemes of historical schools of economic thought can be explained. After all, both Marx and Keynes were concerned with understanding capitalism's dynamic of booms and busts. And there is little doubt that the two theoreticians outgrew their contemporaries in *this* respect. Marx took a lead in studying fluctuations in the 19th century, recognizing that periodic crises are a regular feature of the world capitalist economy (16). Keynes went beyond the Marginalist school in designating *the state* as the institution that could best counter capitalism's volatile nature and reduce the effects of trade cycles (17). Yet no matter how valuable their insights on business cycles are, - there is no doubt that Marx' and Keynes' conceptualisation of reproduction does not suffice towards devising economic policies aimed at countering the combined crisis the world capitalist system faces today. If our aim is to develop keynesian policies which address both today's recession and the crisis that has arisen between capitalism and nature, we need to construct a scheme which does not take nature for granted, but allows us to overcome capitalism's misuse and exploitation of nature and its wealth. To this end, towards policymaking facilitating a drastic reduction in creation of waste, I propose a scheme consisting of at least *four* major Departments. Only by devising a much *expanded* reproduction scheme will it be possible to systematically discuss the policies of a Green New Deal transition, as I will endeavour to do below.

The key, then, is to move beyond capitalism as a system consisting merely in departments of *production*. From its very start, from before the onset of the 18th century Industrial Revolution, all production has been preceded by extraction of resources from nature, - resources in the form of raw materials required for the manufacturing of commodities, and in the form of fossil fuels used as sources of energy. This reality, this double dependence of capitalism on nature, for material and energy resources, may be visualized by posing the existence of a *Department of Extraction (DE)*. The size of this department is not permanent, and an internal transformation within this department and between it and other departments, are all thinkable. Yet without recognizing that all production depends on **DE** we cannot proceed. Again, although for a very long period of time, capitalist entrepreneurs have sought

to 'overlook' the fact that their processes of manufacturing generate side-effects, waste, - 'mature' capitalist economies in the late twentieth century have increasingly been characterized by existence of a department where waste is deposited and processed. This department may provisionally be identified as the *Department of Waste Processing (DWP)*. Like the department of extraction, the department of waste processing is a historical department, in this sense that it is subject to transformation and change. Again, like **DE**, **DWP** may be said to consist in several sectors, including the sector of waste incineration and the sectors where recycling is started. In any case, recognition of these two 'non-production' departments, as I will demonstrate below, facilitates the devising of ecological policymaking that draws on the experience of keynesianism.

6.

The Tasks of Keynesianism Today (1):

Steering the Transition Towards an Economy without Fossil Fuels

The overwhelmingly important task of an ecological keynesianism is to help steer the transition away from dependence on fossil fuels - towards reliance, predominantly, on renewable energy sources, such as wind, sunlight, geothermic energy and biomass. The need to bring down greenhouse gases is now being recognized even by the US government. However, there still exists a widespread tendency to under-estimate what can be achieved. Here, I would like to draw attention to two examples of government interventions. First : an attractive system developed to promote the production of renewables is the German *feed-in-tariff system* (FIT). Under this system, energy companies by law are obliged to buy electricity from the producers of renewable energy. Further, the tariffs towards purchasing renewable energy are fixed by the German government, at a level assuring that production costs are fully covered. Moreover, the tariff level is a guaranteed one, fixed for a long period of time. It is important to recognize that although adopted during the era of neoliberal policymaking, the German tariff system is basically keynesian: it is a mechanism for transfer of costs, from *producers* of renewables towards the *consumers* of electricity. The success which Germany has achieved through the given system are well know – by 2007 alternative energy reportedly covered 14.2% of German electricity (18). Yet the possibilities to apply keynesianism so as to reduce dependence on fossil fuels, are by no means limited to the German tariff system alone. In the Netherlands, a country which is well behind Germany with regard to shifts in energy policy, local government initiatives to invest in production of renewables are mushrooming (19). Thus, both transfer measures and investment policies can be applied.

Let's now try to visualise the transition from fossil fuels towards renewables via the new reproduction scheme proposed above. This is, of course, a transition which primarily affects the structure of the Department of Extraction, **DE**. There will be *contraction*, ultimately elimination of the subdepartment for extraction of fossil fuels. Given the fact that capitalism since the very start of the Industrial Revolution has depended on fossil fuels, shifting from wood as source of fuel to coal, and then to oil and natural gas (20), - the contradiction of the given subdepartment is highly significant. However, one wonders what the implications are for the second subdepartment of **DE**. Won't extraction of raw materials be *expanded*, as the need for windmills and solar panels increases worldwide? And what if corporations now primarily extracting fossil fuels, choose to *combine* reliance on fossil fuels and renewables? How much of a real transition will then be achieved ? Given the hard facts on the ever growing financial and energy costs of extraction of ores – don't we need to set further rules to prevent the world's ecological crisis from being intensified, as policymakers opt in favour of a partial shift towards renewables? Clearly, an approach which looks at the issue of energy extraction in isolation makes no sense. Once we structure our discussion around the existence

of two subdepartments or groupings of sectors under the *Department of Extraction (DE)*; once we further include the question of waste generation into an analysis of production of alternative energy – matters appear in a different light. While the need for a speedy transition stands, shifting merely from fossil fuels to renewables may not suffice.

7.

The Tasks of Keynesianism (2) : Replacing Incineration with Recycling

The second reference point for a credible ecological keynesianism, and for Green New Deals, to my understanding, is the elimination, or elimination to a large extent, of reliance on incineration of waste. Although incineration results in various forms of damaging waste, it is primarily justified on grounds that energy is generated as *by-product* of incineration. Thus, the beauty of processing residual waste in incineration ovens is supposed to consist in the fact that it helps reduce dependence on extraction or production of fresh energy sources, whether fossil fuels or otherwise. And yet, research carried out by non-governmental organisations and by official research institutes has brought out that waste incineration on balance does not help to fight climate change. If judged from the perspective of the need to reduce green house gas emissions, reliance on waste incineration is in fact a negative, a counterproductive choice. For waste incineration perpetuates the reliance on ‘virgin’ extraction of raw materials – extraction which requires the use of energy, and of increasing amounts of energy as the world gets closer to depletion of stocks of raw materials. Hence the importance of the comparison between the energy gains obtained as by-product from waste incineration and the concomitant ‘saving’ in terms of carbon dioxide emissions – and the gains in terms of reduced carbon dioxide emissions that can be obtained from increased reliance on recycling of waste. There appears to be a growing consensus that net carbon dioxide emissions are 4 to 5 times lower when materials are produced from *recycled* material (21).

This analysis has resulted in the advocacy of a shift, or a further shift, from waste incineration in the direction of the recycling of waste. Before explaining how such a shift may be implemented via keynesian policy measures, I would like to explain how the given shift may be visualised in terms of the neo-Marxian/neo-Keynesian reproduction model sketched above. At first sight, it primarily amounts to a shift in the destination of waste sent off to the *Department of Waste Processing (DWP)*, an internal relocation between two subdepartments. After all, in my scheme, both waste incineration ovens and sectors where the recycling of scrap is started, belong to this non-production department. However, if we look at things more closely, we will have to agree that the shift from incineration to recycling involves a *double* shift. For, the more raw materials are saved and re-introduced in the production process via recycling, the more reliance on ‘virgin’ extraction of raw materials can be reduced. Hence, the given shift also has implications for the functioning of capitalism’s first Department, the *Department of Extraction (DE)*. The importance of recycling thus resides in the fact that it results in contraction at two divergent locations in the capitalist economy, - i.e. both in contradiction in **DE**, and in contraction in the sector of **DWP** where incineration ovens are located. Since the significance of recycling is sometimes played down, I have consciously chosen to depict the shift from incineration towards recycling in departmental terms.

Again, one can also visualise the (further) transition from waste incineration in the direction of recycling via policy measures such as those used to promote production of renewables. Here the experience of the German *feed-in-tariff* system (FIT) as described above may be compared with the experiences which hitherto have been gathered towards discouraging

harmful forms of waste processing and disposal. There is some accumulated experience with institution of taxes on dumping waste in landfills, - taxation which has contributed to a shift away from reliance on landfills in European countries. Then, there also are a number of countries which have instituted taxes at the 'gate' of incineration ovens, - taxation that is beneficial for the recycling sectors (22). These examples of policy measures instituted in the era when neoliberalism held sway perhaps bring out the political potential, the political scope that likely exists for a further transformation away from incineration today. However, it should be realized that some of the existing and proposed taxation regimes are *halfhearted*, - for instance where they discourage deposition in landfills only, without questioning incineration; where incineration that does not result in energy as by-product is questioned, but incineration which does generate energy is left unaffected; or where incineration is taxed 'at the gate', yet the government income derived from this taxation is not channeled towards promotion of either recycling or re-use of raw materials. If the measures instituted or proposed are to be qualified as ecological keynesianism, they need to clearly be policy measures aimed at elimination of incineration of waste.

8.

The Tasks of Keynesianism (3):

Conversion as Defining Element of a Green New Deal

A third defining element of a Green New Deal and of ecological keynesianism is conversion, i.e. the conversion of military production facilities. As indicated above, if there is no resolve to break with military keynesianism, one can hardly speak of a break with keynesianism's dark history. There are here at least two major points that need to be kept in mind. First, it does not suffice to transform military into *civilian* production sites. For a Green New Deal needs to *replace* unproductive investments with investments which are clearly *productive*, - productive in the sense that they help to sustain the lives of humans and of other species on earth (23). This notably means that we cannot allow a shift in the direction of *paradoxical* capital allocations, i.e. investments in forms of manufacturing which promote human welfare, while at the same time having damaging impacts on human health and our natural environment. Take for instance the nuclear sector. It would not do, if military nuclear production sites be transformed into civilian nuclear production sites which help generate nuclear energy. For the nuclear sector is perhaps the very most paradoxical sector that exists, - given the large quantities of nuclear waste that are created as by-product of the mining of uranium, and given the highly radioactive substances that emerge from combustion in nuclear reactors and from the reprocessing of nuclear fuel elements (24). Instead of promotion of paradoxical investments, we need allocation of resources towards production resulting in little or no waste. It is noteworthy that British trade unions, in the context of the conversion debate of the 1980s, suggested that military production sites could be relocated towards production of wind turbines and other technology for alternative energy (25). Which proposition retains its actuality in the context of today's debate on climate change.

We also need to closely look at the implications of conversion for workers' employment. Each of the three shifts suggested in this paper has its implications for employment of workers, and in each case, initial evidence shows, these implications are positive. This applies in particular for employment gains from conversion of military production facilities. Supporters of military keynesianism will, of course, argue that arms' production results in favourable multiplier effects. Yet whereas it is true that a significant *investment* multiplier exists for all purchases of armaments made by capitalist states, - there are no comparably large employment benefits. For a key characteristic of the military sector is, that the organic composition of capital here is high. The percentage costs of machinery and equipment

required for manufacturing armaments is high as compared to the percentage costs of labour employed here. Hence, the benefits from conversion are high, if calculated in terms of employment prospects. If the hundreds of billions of Dollars which are presently allocated in the US towards building prototype weapons and towards procurement of new weapons, were to be allocated towards *productive* instead of unproductive investments, - many people could be employed who presently are without work. Indeed, the rationale for conversion is strong. As part of a broader strategy to promote an ecological keynesianism, the role of conversion would be to ensure that maximal results be obtained towards reducing present unemployment levels, in the US and beyond. Why not create a *one trillion* dollar fund for productive employment of members of the world's working class?

9. Keynesian Policymaking as Means of Transition towards a Zero Growth Economy

After this review of three areas in which *Green New Deals* may apply creative policies towards facing the current economic and ecological crisis, it is time to return to the theme of a stationary state which I had briefly posed in my paper on military keynesianism today (26). The discussion on a stationary state or 'circular flow' economy characterized by the circulation of commodities and money at a level that remains constant over time, runs through the whole history of economic theorizing. From Quesnay and the 18th century physiocrats through to leading 20th century economists, such as Schumpeter and Keynes' disciple Hansen, theoreticians have written about a model of a commodity economy which through consecutive cycles of production remains *stationary* (27). Interestingly, in the context of the depression of the 1930s, US economists disillusioned about the functioning of financial institutions put forward proposals aimed at reform of the banking system, suggesting that the quantity of money in circulation be rigidly fixed. One of the ideas floated went so far as to suggest that all interest bearing capital should be 'retired' (28). To my knowledge, it's only since the 1970s, that economists starting with Herman Daly and Kenneth Townsend have started advocating the idea of a transition from accumulation towards a stationary state, as an essential means to stem a further degradation of capitalism's natural environment, and face the reality of ultimate exhaustion of the earth's raw materials (29). In my view, this idea of a stationary state, of zero growth, should be fully incorporated in debates on Green New Deals. Only if ecological keynesianism is visualized as *transitory*, as a phase leading to zero growth, will it respond to the need of the hour.

There is in the context of this paper no scope for an indepth discussion on a future stationary state. Yet I would like to briefly comment on some of the ideas which Herman Daly has put forward towards the prevention of rapid depletion of the world's raw materials, in the form of his '*depletion quota system*'. Under this scheme, governments would hold a monopoly over all rights to extraction. They would raise the prices of raw materials to relatively high levels, and would auction depletion rights to the highest bidder, - to whatever corporation would offer the highest price. The resulting income from the system of auctioning would accrue to the government, would flow to the government's treasury (30). From an ecological point of view, Daly's proposal might sound attractive at first. 'Depletion quota' would enable a government to engage in the transfer of money towards environmental purposes. It could use its additional income from the auctioning of extraction rights, for social and ecological ends. And yet it appears that in order to reach a stationary state, governmental interventions and regulation of resource-use at the global level would have to proceed far beyond what Daly suggests. For one, governmental interventions would be required both at the point at which 'virgin' resources are drawn from nature, at the point of *DE*, and at the point where waste

processing takes place, at the point of *DWP*. One would need a stabilisation of the total amount of resources extracted and recycled combined. Moreover, *planned* use of limited resources should be envisaged via *rationing* and direct *allocation* of resources, rather than via the auctioning of extraction rights. Nevertheless, the international regularisation of resource-use is an essential aspect of a future stationary state world economy.

10.

A Zero Growth Economy And the Interests of the Global South

Before concluding this essay, I wish to, once more, devote special attention to the interests and the position of the global South, as the world economy makes a transition towards a regime of zero growth. First, there is of course no doubt that the global South has a keen interests in adoption of policy measures as sketched above. As reports brought out by international initiatives assessing the consequences of climate change state unequivocally, - it is countries located in the global South which are most seriously at risk. One study which argues this with force is the recent study brought out by the Global Humanitarian Forum, a thinktank founded by former UN Secretary General Kofi Annan. The study compares the number of people affected by climate change, now and in the future, in 'rich' and 'poor' countries. The populations which are most at risk according to the calculations of this study, are the populations of countries living in Subsaharan Africa, the Middle East, South Asia and the small island states of the Pacific (31). Whereas vulnerable countries of the global North have massive capital resources at hand to protect themselves, - vulnerable deltas, islands and lowlying states in the global South do not avail of comparable financial resources to counter climate change. It is here, in the global South, that hundreds of millions of impoverished, marginalized peasant women and men are threatened by the prospects of melting ice, rising sea water levels and droughts. Whereas imperialist countries which since the onset of the Industrial Revolution have been emitting greenhouse gases, are primarily responsible for today's threat of a climate catastrophe - it is countries of the South, *their* vulnerable populations, that are primarily at risk. Thus, if the primary aim of a transition to a zero growth economy is to fight climate change, - the global South has an inherent interest in making sure that it works.

And yet there is a real danger that a transition towards a zero growth economy will occur at the expense of the global South. Imagine a transition to a world economy that no longer depends on fossil fuels, yet fails to protect the specific needs of the economies of Africa, Latin America and the Middle East which now rely on exportation of oil. Imagine the institution of a regime which limits worldwide extraction of raw materials, without taking account of the fact that many countries of Subsaharan Africa presently are largely dependent on the exports of the given raw materials. Imagine a regime that *equally* obliges countries of the North and countries of the South to refrain from accumulation of wealth and capital. One of the weaknesses in most proposals which to my knowledge have been formulated towards instituting a zero growth economy in the past, is that the need for a differentiated approach has largely been overlooked. Just as the theoretical models of capitalism put forward by most schools of economic thought have historically been closed models, the theoretical models aimed at sketching a future stationary state economy too have basically been 'closed' models. They presumed a closed (read : central) capitalist economy, - rather than a hierarchical structure of central and peripheral economies. This is true not only for stationary state models constructed historically, but also for zero growth models as designed by ecologically oriented economists of the late twentieth century. If rules are to be set in the future for rationing extraction of natural resources, - these rules cannot be single, worldwide rules and

prescriptions, but will need to be differentiated prescriptions. Only such a zero growth model will do, that takes the rule of zero growth as a global starting point, while recognizing the need for two parallel transitional developments. It will need to combine a process of macro-economic *contraction* in Northern economies, with continued *expansion* of Southern economies, - in particular expansion of economies located in the marginalized continent of Africa.

11. Summary and Conclusion

In this essay I have tried to survey the potential of an ecological keynesianism as answer to today's twofold crisis, the combination of a deep recession in the world economy and an unprecedented global ecological crisis. The *first* point to be kept in mind, as we start debating the meaning and the significance of an *ecological keynesianism*, is that it needs to present a decisive break with keynesianism's past. During the period when keynesianism was the dominant economic theory on which Western governments relied, - transfer measures and public investments in Europe partly had a civilian character, no doubt. Yet from a broad historical perspective, if the whole history of keynesianism as economic *policymaking* be surveyed, *military* keynesianism has been its predominant form. It preceded the institution of civilian keynesian measures after World War Two, and it has also survived the demise of civilian keynesianism after neoliberalism triumphed. Hence, it would be extremely shortsighted if *Green New Deals* were to be conceived without addressing the urgent need for deep cuts in military spending. *Secondly*, ecological keynesianism needs to be firmly grounded in a revised view of the structure of world capitalism. Periodic crises in the world economy can largely be analysed on the basis of a reproduction model of two departments, - or on the basis of an extended view posing two production departments (**DMP** and **DMC**), the military sector and the (hegemonic) state. Yet towards formulating policies to overcome today's *ecological* crisis, these models no longer suffice. If we are to design effective policies aimed at drastically curbing the misuse of nature's limited resources, and at rapidly reducing greenhouse gas emissions, we need a reproduction scheme which, as stated, poses the existence of at least two 'non-production' departments, i.e. a *Department of Extraction* (**DE**) and a *Department of Waste Processing* (**DWP**). Only through a scheme of at least four distinct departments is it possible to clarify the internal transformations which capitalism urgently needs to undergo today.

Thirdly, in this essay I have not given an exhaustive listing of policy directions which an ecological keynesianism may take. Nor have I exhaustively discussed which economic measures may be adopted towards effectively bring down greenhouse gas emissions now. Undoubtedly, issues such as bringing down energy use by society's household consumers, or measures which target the automobile and transportation sector are worth discussing. Yet the aim of highlighting shifts in three areas, as suggested above, should be clear. None of the three policy directions stated - a wholesale shift from reliance on fossil fuels towards reliance on renewables; cancellation of waste incineration in favour of more dependence on recycling; and conversion of sites where armaments are manufactured into sites for productive use - can easily be achieved. Implementation of each will require continued efforts to ensure that the meaning of ecological keynesianism not be deluted from the start. And yet the potential to shift policymaking away from neoliberalism is huge. *Lastly*, the ultimate difference between keynesianism as historically conceived and an ecological keynesianism, is not just that governmental interventions for the first time will be geared towards social *and* environmental ends. Clearly, this already implies a redefinition of keynesianism's function in the new historical context. Beyond this, however, the *ultimate aim* of keynesianism too needs to be

redefined. Whereas John Maynard Keynes set himself as task to propose ways towards overcoming capitalism's tendency towards periodic crises and depressions at a time when the world economy was split between a 'socialist' and a capitalist camp, - today's world historic context is obviously different. Given the fact that the world's ecological crisis is set to deepen, get further aggravated in the years and decades to come, - an ecological keynesianism can only provide *short-term* answers for policymakers. The survival of humans and of other species living on planet earth, in my view can only be guaranteed via a timely transition towards a stationary state, a world economy without growth.

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