

# Towards egalitarian categories and measurements: capital, wage-labour and human beings

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## 1. Introduction

The purpose of this paper is to suggest alternative measures of well-being, which allow us to capture and measure the extent of inequality between them. We do so in a Marxist egalitarian framework, closely reading the work of Michael Lebowitz and developing from it. Construction of macroeconomic measurements has from their inception been done from the standpoints of capital and nation states.<sup>1</sup> Although the accounts are strictly defined in terms of monetary flows, in public discourse these have often been interpreted as measures of well-being, quality of life and progress of nations. As political decision-makers have become aware that such measures do not readily yield valid measures of the quality of life, particularly when compared between nations, several large projects and alternative measurements – Beyond GDP by OECD, Sarkozy's commission, Happy Planet Index, Human Development Index (HDI) and Genuine Progress Indicator (GPI) – attempted to address this.<sup>2</sup> While many of those projects do address some aspect that are useful from the standpoint we take here, GPI being perhaps the best example, their perspective remains firmly rooted in capital and its needs. Instead of the standpoint of capital, we take the standpoint of what we can broadly call the workforce, or the category of workers extended by assessing the needs of the workers reproduction and development. Similarly to the relationship between the development of economics as a discipline and capitalist political actors that drove it decisively through most of its history, the shift in the perspective we propose, from capital to workforce, is rooted in egalitarian struggles of worker groups, organizations and

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<sup>1</sup> For comprehensive history of national accounting, see (Studenski, 1958; A. Vanoli, 2005)

<sup>2</sup> There is a voluminous literature on this, for a selection of good critical overviews, see (Anielski, 1999; Cobb & Cobb, 1994; Costanza, Hart, Posner, & Talberth, 2009; Ogle, 2000; Palmieri, 2012; Stanton, 2006)

movements.<sup>3</sup> Although Marxism and Marxist economics have historically played the role of representing the interests of workers in the fields of politics and economics, such attempts were severely limited by the nature of Marx's work. As Michael Lebowitz develops in detail, In *Capital*, Marx laid out an extensive critique of the political economy, studying the logic of capital, but without ever switching the perspective of the analytical framework to that of the workforce. The object of Marx's study was a mode of production specific to a historic period as seen from the standpoint of capital. From the perspective of workforce, we are left with no concepts to account for the two important phenomena: the rise of public spending and welfare state in advanced countries; the past and the present of the actually existing socialist states. There are two historic principles that have been at the centre of egalitarian historic struggles: full development of human capacities of all, and "from each according to their ability, to each according to their needs". We call those development-egalitarian principles, whose aim is reproduction and development of human beings. To conceptually capture them and construct units of measure, or at minimum to allow us to capture their tendencies and ratios, concepts of value, wealth and productivity standardly used in economics have to be at minimum amended and broadened by additional measurements and indicators. However, given the how strongly capital-centric most of the economic concepts are, it is likely that those key concepts will have to be redefined to a significant extent. While in Marxism we have developed studies of capital and its logic of self-expansion and unequal distribution, an affirmative analytical apparatus for the reproduction and development of the workforce is lacking. Without such framework, we are unable to undertake several key theoretical steps.

First, we cannot qualitatively or quantitatively judge achievement of workers' struggles within capitalism throughout history. Let us take United Kingdom as an example. Although UK public health system has been made in the image of worker self-organization and collective approach to health care of South Wales miners, where pooled resources were allocated according to the "to each according to needs" principle, such state activities are seen as class compromises with capitalist states, typical of social-democratic political forces.<sup>4</sup> That is how we end up in the situation that public health, the largest public sector, is not being treated as victory of workers struggles and their egalitarian activities and spirit. Given that the we have not developed social-economic measurable concepts that would demonstrate the creation of new value in public health and allocation of results according to needs as contributions diametrically opposite to the capitalist mechanism of meeting needs according to the individual ability to pay (i.e. according to individual, and not society-wide collective, wealth), it is not a surprise that such services are nowadays an easy prey for expansion of the capitalist mode of production through privatizations. In a better case, national accounts traditionally show the value of public sectors to be equal to the costs, what comes out equals what comes in. With such approach, positive contribution of the

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<sup>3</sup> Simon Kuznets, one of the fathers of national accounting, has insisted throughout his work that in order to assess economic activity, the activity has to have the purpose assigned (1953). See also the 1948 debate Kuznets-Gilbert (Gilbert, Jaszi, Denison, & Schwartz, 1948; S. Kuznets, 1948), and (Kane, 2012).

<sup>4</sup> For the history of health services in Wales and history of NHS, see (Borsay, 2003; Hart, 2010).

sector to the society is considered only through outcomes.<sup>5</sup> Equally problematic, building a hospital, a school, or military equipment is all classified as Gross fixed capital formation (GFCF).<sup>6</sup> In the case when Marx's categories are applied in the context in which they have been developed in *Capital*, we get one of the most advanced Marxist studies of national accounting showing health and education sectors as pure expense, as sectors which consume the value produced elsewhere.<sup>7</sup> From our development-egalitarian perspective, investment in elements essential for reproduction and development cannot be treated equally to military investments. Nor is it enough to say that development-egalitarian elements, public services in this case, contribute to society equal to their cost of production. Instead, both government spending and its value added has to be differentiated and treated according to contribution of each sector and sector elements to fulfilment of development-egalitarian principles.

Second, Marxist economics is based on the critique of capitalist mode of production and produced from the standpoint of capital. However, without an affirmative framework, analysis of welfare state and socialist states is impossible from the perspective of workforce and development-egalitarian principles. For example, there are no categories and measures which could be used to demonstrate the growth of egalitarian relations in a socialist country when the industries are socialized and public services distributed according to needs, or indeed when public services like health and education in the UK, are introduced or being privatized. In other words, we lack analytical frameworks to show the dynamic of the equality, its increases or decreases. Consequently, the same goes for socialist states turned capitalist, where we lack ability to demonstrate the destruction of egalitarian relations. Therefore, comparative studies are resigned to using aggregate macro-economic measures designed to measure the advances in the interest of capital.<sup>8</sup>

Third, we do not have a way to integrate into one analytical framework all that workforce needs for own reproduction and development. That is why it should not come as a surprise that many left economists express solidarity with household labour and care activities, only to completely leave them out when it comes to calculating value, wealth and productive labour in society.<sup>9</sup> To address those deficiencies, we need a theoretical framework which Michael Lebowitz calls political economy of wage labour, of working class, or sometimes political economy of use-value. With those names, Lebowitz signalizes that contrary to exchange value that is the focal point for capital, workforce is interested in use-

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<sup>5</sup> OECD is attempting to measure outcomes. In the education sector, quantity is measures as number of hours that students and pupils spend being taught, adjusted for two measures of quality: measuring knowledge in various disciplines (PISA), and spending per student adjusted for purchase power parity (OECD, 2012a, Chapter 8). PISA project has its problems and critics, see (Hopmann, Brinek, & Retzl, 2007; Wuttke, 2008).

<sup>6</sup> For recent status of military spending in national accounts, see (OECD, 2013, Chapter Investments). See also classification of military equipment (IMF, 2010, p. 122).

<sup>7</sup> Shaikh and Tonak (1996), see Harvie for a detailed critique of their position (2003).

<sup>8</sup> This does not at all mean that many element of the existing macro measures (PISA, Eurostat, OECD, national accounts in general, etc) cannot be utilized - quite the contrary. To ascertain which elements to use and how, we need a detailed and thorough understanding of the genesis, history and contemporary uses of statistics, national accounts and their categories.

<sup>9</sup> These problems are usually explained away by two arguments: Marx studies only the logic of capital; Marx was not working on imagining future egalitarian social orders. Although both arguments are factually correct, the logic of their use as a defence of Marx and Marxist works misses the point.

value, benefits in use and in consumption of goods and services. Yet, what is the purpose of use and consumption and how do we measure it? From the perspective of capital and exchange value, the answer is simple: capital strives to self-expansion. Profits, interest and rent, expressed in money, are its goals. By measuring them, we can see the dynamic of capital and private property enlargement in all sectors where capital is active. From the egalitarian perspective of the reproduction and development of the workforce, we do not have accounting units, or proxies and composite indexes that would enable aggregation across the sectors where the workforce operates. Furthermore, unlike capital, we cannot easily pin down what the workers strive to. Finally, while capital operates only in some sectors and areas of human activity, workforce operates everywhere where there is human activity. However, not all such activities are productive for the reproduction and development of the workforce as a whole – military industry is an obvious candidate. So are the legal public services and increasingly private industry of incarceration.<sup>10</sup> On the opposite end of the spectrum, it is easy to agree that meeting key needs – nutrition, clothing, housing, health, education, care and security – has to be at the centre of the analytical framework. Equally important, to move towards the “from everyone according to their abilities” principle, the production of goods and services satisfying a broad set of needs has to be planned, measured and allocated according to need. To restate the question: how do we measure increased benefits to the workforce and reduced benefits to capital, when all that we have are capital-centric frameworks and units of measure? Privatizing a hospital or a university is a good example. In the first post-privatization accounting period, proponents of capital can claim that there is new value created: volume of consumed final goods and services and profits (hence, the GDP too) will grow. As a result, accumulated capital will be either saved, invested, or consumption of luxuries by capitalists will grow. Simultaneously, due to pricing of goods and service, instead of distribution according to need with no (or economically insignificant) payment by the end user, allocation will turn to the principle of individual ability to pay, i.e. according to one’s private wealth and class position, resulting in individual and aggregate reduction of equality. From our development-egalitarian perspective, the total cost of reproduction of the workforce, which necessarily includes health and education, will thus grow.<sup>11</sup> In short, the growth in volume of market distributed paid for goods and services, and the growth in profits and private wealth, will at minimum

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<sup>10</sup> From our standpoint here, the starting premise would be that prisons are destructive activities. Those who might be arguing differently are likely to base their arguments on the necessity of security and the protection of private property.

<sup>11</sup> Amongst the central arguments of the proponents of capitalism is the claim that the privatizations bring about efficiency and productivity gains. However, if we are to judge by recently published research commissioned by the UK government during the Tony Blair’s mandate, assessing the proclaimed aims and financial gains which should have followed from privatizations, economic efficiency has not increased in Britain (Parker, 2012, pp. 524–6), nor across Europe (Parker, 1998). Therefore, the criteria for success established by the heavily capital-centric economics have not been satisfied in those examples. The left, Wikls concludes, was right when they held privatization to be a political campaign with the purpose of further installations of the markets as the dominant principles of the British economy (Wilks, 2013, Chapter 6). In the wave of privatizations, portion of state corporations in the GDP has been reduced in UK from 10.5% 1979. (Wilks, 2013, p. 122) to 1.9% 2000. year (Clifton, Comín, & Díaz Fuentes, 2006, p. 743). In the same period, distribution according to need gets significantly reduced in certain sectors – see our below analysis of housing.

have an effect of increased insecurity of the workforce, while it is almost certain that the cost of reproduction of workforce will also increase. Furthermore, the possibility of democratic control over the production and distribution of those goods and services is lost once they become private – that is another loss from the perspective of development of workforce which necessitates forms of self-management and growth of worker knowledge necessary for participation in management (finance, law, management, accounting, planning). Here we see two logics in antagonistic relationship: capitalist and egalitarian one. While the consequences of privatization are assessed as positive from the standpoint of capital, from the standpoint of workforce, the whole number of changes cannot be easily conceptually understood nor account for: reduction of equality and solidarity; narrowing of the opportunities for the self-development to a smaller subset of population; services formerly free at the point of use get assigned prices, thus making the reproduction of workforce more expensive; removal of possible democracy at workplace and insights in accounting books – to name a few. In other words, when the capitalist logic conquers new spheres and territories, there is a whole set of categories, accounting practices and ways of thinking about it, a whole apparatus of rational thinking that shows the plausibility of the claims that spread of capitalism is a desirable scenario, due to the increases in well-being it brings about. The central issue this work addresses is establishing contours of and analytical apparatus which will enable us to do the same from the perspective of the egalitarian logic.

## **2. Marx's framework, first two circuits of reproduction: capital and wage labour**

Michael Lebowitz's reading of Marx has been in the making for decades, with the focus on developing categories from the standpoint of workers and human development. It's a good foundation for what we are trying to do here. However, since the basis on which we build, by following Lebowitz, is Marx's work, the question arises: why Marx? This seems especially important given that Marx did not witness the growth of welfare state and socialist states, both of whom to different extents and in different ways partly introduced the following egalitarian elements in society: socialization of the means of production, allocation according to needs, removal of profit as the aim of economic activity in some of the sectors meeting needs, introduction of planning and coordination. To start with, it is important to keep in mind that Marx was not aiming to capture the logic of particular historical forms of phases of capitalism. His goal was the internal organization of the capitalist mode of production, especially its ideal average (Heinrich, 2012, pp. 29–32; Marx, 1991, p. 970).<sup>12</sup> It follows from this that we cannot reject Marx's analysis only because it does not cover key differences of historical and geographic examples of capitalist societies – such was never his

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<sup>12</sup> For example, „The general rate of profit exists indeed only as an ideal average figure, in so far as it serves to estimate the real profit; it exists only as an average figure, as an abstraction, in so far as it is established as something which is in itself complete, definite, given. In reality, however, it exists only as the determining tendency in the movement of equalisation of the real different rates of profit, whether of individual capitals in the same sphere or of different capitals in the different spheres of production“ (Marx & Engels, 1990, p. 459). Other than this central level of analysis, we have to keep mind that in Marx, and especially among Marxists, there are other levels that we need to engage with, like analysis of concrete capitalist social formations and stages of capitalist development.

goal, quite the contrary. During the past few decades, the neoliberal phase of capitalist expansion provides more evidence across many nation states on how productive Marx work was when we consider its core intention to show the tendency of capital to self-expand, to seek profits and to do so at the expense of workers. Using his model of the capitalist mode of production, we can explain how despite the different formations capitalist societies take, the core logic of capital operates in all of them. The success in abstractly capturing the logic of capital, his egalitarian political stances and the methods of his analysis are what we consider primary reasons to take Marx's analytical framework as a starting point.<sup>13</sup> How far it can take us, given the huge shift in the standpoint from which we assess everything, is the question that can only be answered through future research.

While Lebowitz follows Marx's model across Marx entire body of work through a close reading, he leaves aside Marx's theory of value and capitalist crisis, focusing instead on what we can learn from Marx's work from the standpoint of workers. For many Marxist economists, such reading of Marx is likely to be entirely unacceptable due to the centrality of the theories of value and crisis to Marx's work. However, although our intention is not to leave those two aspects unanswered, the approach from our different standpoint dictate that categories of value, crisis, wealth and productivity take both a significantly different meaning and research path, one that cannot be developed straight away, or tackled directly. As the work progresses, establishing those categories from the standpoint we take here will be done by engaging with theories by which those categories were established from the standpoint of capital, with a primary focus on Marx's theory of value and national accounting.

It is the unity of the production and circulation processes, Lebowitz writes, capital as a whole in its totality, which Marx constructs in *Capital*. To be "seen as a whole, we recognize that capital must move through a continuing circuit, which can be expressed in several ways" (2003, p. 60). We start from the circuit of money-capital, Marx's basic model. In more detail: money (M) buys two kinds of commodities (C), means of production (mp) and labour power (Lp), in order to engage in its self-expansion, to seek profit, to seek surplus value. In the following process of production, P(k) in below diagram, new commodities containing surplus value (C') are produced. Commodities can be either the means of production, which will be used in the next round of production, or articles of consumption for mass consumption (Ac). They have to be sold in order to return to the money-capital form. Although we can observe the circuit from different starting points – we can start and end with P(k), or with commodity-capital, beginning and ending with C' – only by seeing the capital as a whole in the form of the circuit, in which reproduction of all of its elements occurs, can we understand capitalist mode of production (ibid., 61-2). The central argument in Lebowitz's reading of Marx work is the following: *Capital*, from which we derive Marx's central analytical framework, lacks the circuit of reproduction of wage labour as seen from the standpoint of workers. In Lebowitz's own words: "*the system can only be complete by positing explicitly another process of production, a second moment of*

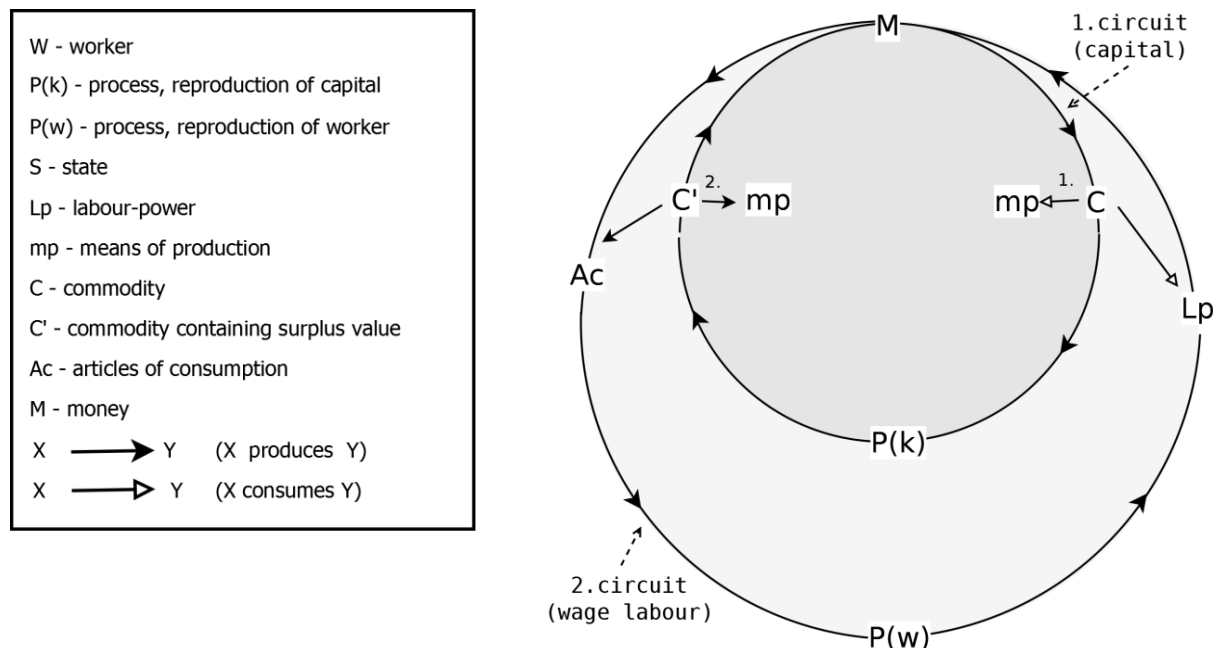
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<sup>13</sup> Contrary to methodological individualism used in neoclassical economics, "for Marxism, the parts have no prior independent existence as parts", instead they acquire properties as being part of a whole (Lebowitz, 2003, p. 53). For critiques of methodological individualism, see (Fine & Milonakis, 2008, p. 14, ; Patnaik, 2009, pp. 70–77).

*production (Pw), distinct from the process of production of capital – one in which labour-power is produced in the course of consuming articles of consumption.* Thus the circuit of capital necessarily implies a second circuit, the circuit of wage-labour” (ibid.,65).

Lebowitz’s key argument for the addition of the second circuit is that Marx’s criteria for modelling capitalist mode of production was to include all necessary conditions for the reproduction of capital. Therefore, he concludes, not only are *Capital* and its concepts one-sided, but by Marx’s own standard, the model cannot be complete without the inclusion of the reproduction of the working class (ibid.,66). To address this, Lebowitz adds the second circuit of reproduction – to an extent present in Marx’s work, but with minimal development from the standpoint of workers.<sup>14</sup> In the circuit of wage labour, workers sell their labour power for the wage, which they use to buy articles of consumption. By those purchases, they simultaneously make the reproduction of their labour power possible and they realize surplus values contained in those commodities for the capitalists as money-capital.

Figure 1. Two circuits of reproduction: capital and wage labour



Due to lack of considerations from the standpoint of workers, many theorists on the left (Andre Gortz, Claus Offe, Cornelius Castoriadis, E.P.Thompson) object that Marx got stuck in the categories of political economy which he set to criticise (ibid., 22-25). Lebowitz rejects such conclusions, but does claim that certain amount of responsibility for what he calls one-sided Marxism, for Marx’s followers continuing using and developing one-sided concepts

<sup>14</sup> For example: „Besides the productive consumption of M (money), transformed into L (labour power) and mp (means of production), the circuit contains the first link of M-L, which for the worker is L-M = C-M. Of the worker's circulation L-M-C, which includes his consumption, only the first link falls into the circuit of capital, as the result of M-L. The second act, i.e. M-C, does not fall into the circulation of the individual capital, although it proceeds from it.“ (Marx, 1992, p. 155), and „M-L is L-M or C-M from the point of view of the worker, i.e. the first phase of the circulation that mediates his individual consumption: L-M-C (means of subsistence)“ (ibid., 138).

from *Capital*, has to be attributed to Marx (ibid., 137).<sup>15</sup> Following the long discussion of one sided concepts embodied in *Capital* – reproduction of wage labour, wealth and productive labour (ibid., 124-36) – Lebowitz provides succinct summary of the why this matters politically and how it limits our understanding of wealth:

*“What Marx did in Capital was to identify and analyse the nature of capitalist wealth. He revealed that wealth from the standpoint of capital (and thus from that of the political economy of capital) was the result of the exploitation of the wage-labourer. Nevertheless, the subsequent failure of Marx’s disciples to articulate the alternative conception of wealth is equivalent to subservience to capital’s concept. The absence of an alternative class concept of wealth allows the conclusion that wealth emerges only in and through capital. To permit the unchallenged rule of the one-sided concept of wealth is tantamount to abandonment of the theoretical struggle.”(2003, p. 133)*

We try to address the problem first by modifying the existing circuits, adding the third circuit and the missing elements.

### **3. Modifications: third circuit, the state, workforce, their needs and development**

It is important to emphasise key differences from the start. In the circuit of reproduction of capital, from the perspective of capital, workers are only a component in the expansion of capital and its drive for realization of surplus value. From the standpoint of workforce needs, their reproduction and development take the central position. Analysis and especially the way our object of investigation presents itself thus differ from what we get from the standpoint of capital. This in no way means that the importance of the two circuits of reproduction is small; it means that we assess them differently, through concepts and categories by which we grasp the object of study and how we connect those together in an analytical whole. On the one hand, restructuring of concepts and categories and their relations must not be the subject of arbitrary or voluntaristic analytical decisions. On the other hand, although there are huge obstacles to develop the analytical framework discussed here – interweaving of circuits, high dependency of the third circuit on the first two circuits, relatively small amount of research into the third circuit by the relevant theoretical disciplines from the perspective of the reproduction and development of workers – we treat them as surmountable, rather than terminal problems.

Perhaps the most obvious example of the interwoven circuits from the perspective of workers is the wage as income. While wage labour is without doubt a key component for obtaining use values necessary for the process of reproduction and development of the workforce, it is in no way the only, or the sufficient one. The process includes number of various forms of unwaged labour. Hence, the category of those who exercise work – wage labourers in the circuits of capital – has to be significantly broadened. Michael Lebowitz

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<sup>15</sup> Lebowitz refers to Marx’s plan to write six books. There are differing answers offered to the question whether Marx abandoned the plan. Whatever the right answer is, consideration of the whole theoretical field *Capital* deals with is almost entirely missing from the standpoint of wage-labour (missing book). Roman Rosdolsky, Makoto Itoh and Enrique Dussel provide discussions of Marx’s books plan (Dussel, 2001, Chapter Author’s Introduction; Itoh, 1988, pp. 55–59; Rosdolsky, 1977, pp. 10–57).



highlights this in a lot of places in his work. Here we need to take it further towards a detailed development of the category, with the end goal to enable measurement and commensurability, an accounting perspective in short.<sup>16</sup> Let us start from children, youth and students. They are not only the future workforce, but a source of joy and the focal point of the development of the human race. Young people often end up doing formal unpaid work as volunteers. While doing so, the cost of living, the cost of reproduction of their labour power has to be paid for by someone, often their family. On the other side of the age span we have retired and elderly. Their importance in the reproduction of workers is twofold: informal labour arrangement in childcare, frequent source of accumulated wealth. Due to history of egalitarian demands and practices of workers movements, and collective work on reproduction within families as basic collective social units, we also have to include those who are not able to perform work, or whose special needs to be perform it are not met.

Putting together all the forms of work important for the reproduction and development of workers, we get a new category of workers, or workforce, consisting of the following sub groups: the future workforce (children, youth, students), the former workforce (pensioners, elderly), the informal workforce (household labour, care), the formal unwaged workforce (interns, volunteers) and the deprived of opportunity to work (disabled, unemployed). From the standpoint of this broader category of workers/workforce (W), our research field expands vastly. Instead of the narrow focus on market articles of consumption, we include a large variety of use-values, goods and services that workers consume in the process of their reproduction and development. An example is household labour (2003, p. 145).<sup>17</sup> We represent the process of production and consumption of such goods in our diagram as the third circuit of reproduction; process which does not have to depend on market distributed commodity. The third circuit cannot be analysed in isolation from other circuits of reproduction on whose elements it depends. The circuits are highly interwoven, household labour is difficult to imagine without modern energy supply, technologically advanced tools, and often without the capability to pay the cost of housing (mortgage on the dwelling, rent). We represent the third circuit – process of reproduction and development of workers/workforce, in which both input and output are use-value consumed by the workers themselves – with its own separate element.

*Figure 2. Third circuit of reproduction (use-values) of workers/workforce*

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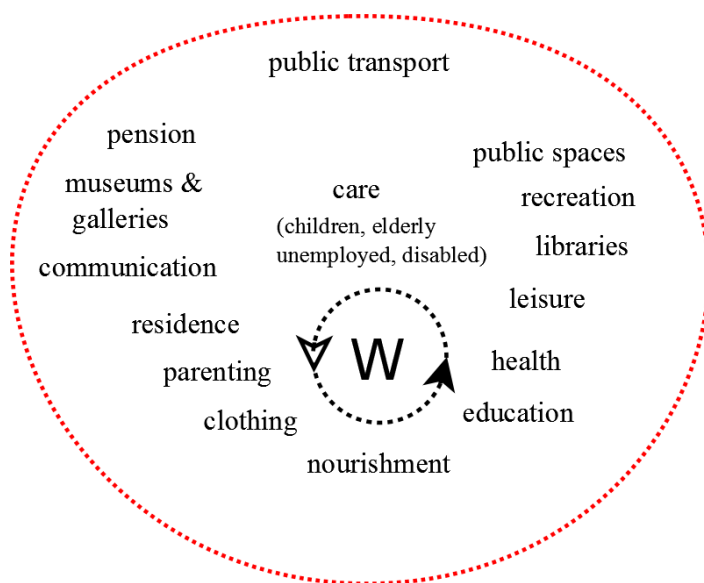
<sup>16</sup> Public sector labour also significantly contributes to the development and reproduction of the workforce. Debates around the indicators of public health and education have been a part of national accounting for a long time. Final goods and services produced (outputs) cannot tell us enough on their own, the need qualitative correction and integration with outcomes. However, outcomes are often multiple, often split into direct and indirect ones (Schreyer, 2010, fig. 2.1 4.1).

<sup>17</sup> Each of these types of labour requires own treatment. Household labour is perhaps the most demanding one, due to its volume and centrality for the reproduction. While feminist materialist literature is the obvious place for undertaking conceptual work (Costa & James, 1975; Federici, 1975; Hennessy, 1997; Vogel, 2000; Weeks, 2011), plenty of economics literature offers starting points too (Eisner, 1988; Folbre & Wagman, 1993; Ironmonger & Soupourmas, 2002; Marical, d' Ercole, Vaalavuo, & Verbist, 2008; Murphy, 1978; Waring, 1999).



To indicate in more detail workforce meeting their own needs and development, we add to the diagram the list of the elements they require. The list is tentative, it is not fully developed, nor conceptually rounded. Although the function of the list is only an initial mapping of the research field, of the terrain that has to be analytically grasped, it is necessary to construct it at this stage of research. We place the list around the workers and their third circuit of reproduction. Many elements overlap with other circuits too. A good example which can belong to all circuits is recreation, an activity which can be performed without direct involvement within the first two circuits (outdoor sport in the wild); at the publicly maintained playground whose use can be allocated according to need or some other egalitarian principle, or at private ground with the use of other commodities (equipment, trainer assistance).

*Figure 3. Elements of reproduction and development of workers from all three circuits (standpoint of workers/workforce)*



Large number of elements of the reproduction and developments of workers are partly or entirely produced and distributed through state institutions, local, regional or central ones. Elements which seem crucial from the reproduction-development worker standpoint are already present in the above figure three. That still leaves out many of the state produced elements. Given that no circuit of reproduction could function without those elements, we are adding them to diagram along with the state (S) as a separate group. The same note goes for this list of elements: it is an initial mapping of the terrain, at this stage of research both required and necessarily tentative and incomplete.

*Figure 4. Elements of the state, reproduction of capital and wage-labour (standpoint of capital)*

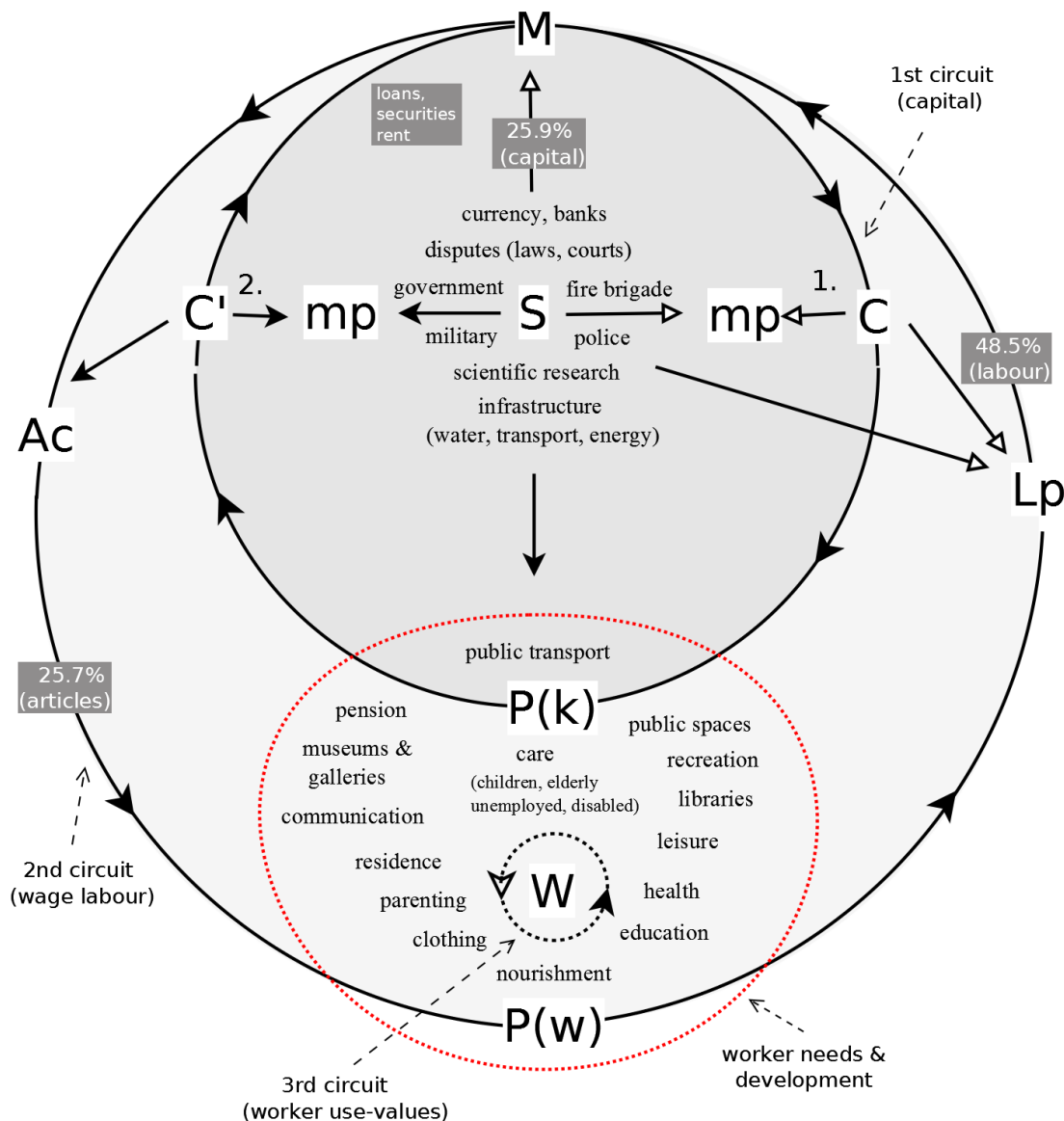
currency, banks  
disputes (laws, courts)  
government      fire brigade  
                    **S**  
military            police  
          scientific research  
          infrastructure  
          (water, transport, energy)

To reduce the possibility of misinterpreting this categorization: elements in figures three and four are for different reasons important to both capital and workforce/workers – we determined the position of each element according to which aspects of its functionalities seem to be the dominant ones, i.e. which standpoint, capital or workforce, gains more from the element. For example, workers also critically require infrastructure and other elements from the figure four. Military is perhaps the only exception where cannot see the use to workers.<sup>18</sup> Now we can look at all the circuits of reproduction together.

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<sup>18</sup> Although we reject such evaluation of military, a case can be made that it serves the protection of workers and thus improves the conditions for their reproduction and development in the following way: conquering other countries, gaining control of material resources, installing desirable political regimes and gaining sources of income. See also (Degrasse, 1983; Riddell, 1988; André Vanoli, 2006).

Figure 5. Three circuits of reproduction: capital, wage labour (standpoint of capital) and workers/workforce (their own standpoint)






We added to the diagram sources of taxes divided along Marx's key categories (articles of consumption, capital, labour power), again to help us with the initial mapping of the terrain – taxes are the main source of society wide collective funding for many of the elements from the circuits of reproduction, and as such will require a detailed treatment.<sup>19</sup> In the following table we list the changes in comparison with Lebowitz's two circuits diagram. Although the last three columns are almost entirely empty, they are placeholders, a reminder that the goal of those additions resulting from the standpoint switch is to integrate elements into the model as a whole. For example, wage labour is partially present both in Marx's  $M - C - (Lp, mp) - C' - M'$  model and in Lebowitz's wage labour – capital – wage labour model ( $WL - K - WL$ ) (2003, pp. 72–6). In Marx's circuit of capital, the form it

<sup>19</sup> Our initial categorization of taxes is using Marx's categories: capital, labour, articles of consumption. See Appendix for data sources, tables and categorization.

takes is that of labour power in the process of reproduction of capital. In Lebowitz's further development, it is the standpoint of wage labour in the second circuit, and the standpoint of the workforce for their own aims (not any more as only an element within the reproduction of capital) in the third circuit. The standpoint of wage labour and the standpoint of workforce are the starting and ending points in the second and third circuits, while the reproduction of capital is from those standpoints seen as the mediator for the reproduction of wage labour (second circuit) and the workforce, broader category of workers (third circuit).

*Table 1. Changes in circuits of reproduction and their place in models*

Changed	Type of change	Symbol	Comment	In the circuit model?		
				1. capital	2. wage labour	3. workers
worker	addition	<b>W</b>	Our analysis is conducted from the standpoint of worker, hence the necessity of its inclusion in circuits.	yes	-	-
wage-labour	expanded to worker	-	Participation in the circuit of reproduction of workers goes much wider than wage-labour.	partially	partially	-
worker needs & development	addition		Capital strives to profit, workers to fulfil needs and to develop, dependent on all three circuits.	-	-	-
state, its funding and functions	addition	<b>S</b>	Crucial for production and delivery of goods and services that play key roles for the reproduction of capital, wage-labour, and development of our broader category of workers. The state consumes labour power and means of production, produces mostly use-values and some means of production.	-	-	-
3rd circuit of reproduction	addition		Use-values -> production -> use-values; e.g. public services; friend or family member child minding; household labour in general.	-	-	-
UK tax 2012/13 projection	data		Categorised according to the Marx's categories in the circuits of reproduction. Helpful to assess the role of the state.	-	-	-

A significant justifiable objection to our circuits could be that with the introduction of workforce and their needs, by broadening the category of workers, we lose money as the accounting unit of measure, and with it the possibility of aggregation across all the activities we take into consideration. Translated in Marx's categories, we lose commensurability through the loss of abstract labour: significant sections of the work in the third circuit are not valorised in money, hence remaining concrete labour according to Marx, which means that we do not know in which relation each such concrete labour stands with the abstract labour socialized through wages and market exchange. However, as soon as Michael Lebowitz introduced use value (Uv) to demonstrate the process of reproduction of workforce in the third circuit – Uv, Lp ... P(w) ... Lp – commensurability through money is already lost. Here we follow the consequence of the two step shift in the standpoint and the changes it introduces in the analytical frameworks: we start from the standpoint of capital

(as analysed by Marx), moving to that of wage labour (still Marx, workers for capital, as the key element of the self-expansion of capital), to that of workers for themselves (Lebowitz's key point), finally arriving at the broadened category of workers (workforce) and the corresponding standpoint. The loss of aggregation is a necessary consequence of the inclusion of use values. This in no instance means that the loss is permanent. Quite the opposite, development towards reestablishment of measurement units, commensurability and an overall accounting framework is not only necessary; the very success of this extended framework critically depends on it. Nevertheless, imposing the existence of the accounting unit and aggregation as the must-have basic condition from the beginning of work is an unnecessary obstacle which hinders the gradual development of the analytical framework.

An important issue, which we cannot resolve here, but which has to be raised, is the question of the analytical level of abstraction. The key question being whether the elements we are adding belong at the same level of the abstraction as Marx's basic M-C-M model. Arguments in favour of a negative answer are strong: despite gains workers movements and their organizations (friendly societies, mutual help, unions, political parties) made in the twentieth century (public services in most advanced capitalist states, socialist states), the capitalist mode of production has significantly extended its reach to new spheres and territories. The argument that follows is that although reproduction of workers and the state are important element that capital requires, they are not part of its logic, they are its conditions.<sup>20</sup> While we can accept those arguments, the problem what to do with the elements which are omitted by such high level of abstraction remains unanswered. If we can agree with the thesis that the formation of public services, the rise of the welfare state, is of significant importance from the perspective of the workforce, especially given that those aspect of production use up a large portion of overall social wealth (see our graphs and tables below), inclusion of those elements in the model seems necessary for better understanding, accounting and insights into tendencies of those elements and their relations to other parts of the overall social reproduction and expansion through new value and wealth added. The question that arises is the following: what is the purpose of economic and economic-alike modelling? Is it to capture the logic of the dominant mode of production at its highest level of abstraction, so that the number of elements is as fewer as possible? Or, is it to simultaneously capture the most important political-economic changes and their dynamic? If we accept the answer that it is the highest level of abstraction that is the task of modelling, we know that with such approach we lose all the elements that are key for the reproduction and development of the workforce, which are the results of centuries of struggles for pooling of resources and widening of allocation according to need at the level of community (public health, education, social care, pensions, social housing). Leaving all those elements out does not seem an acceptable option. Hence, perhaps the question of whether additional elements, necessary conditions as Marx seem to have called

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<sup>20</sup> "The maintenance and reproduction of the working class remains a necessary condition for the reproduction of capital. But capitalist may safely leave this to the worker's drives for self-preservation and propagation." (Marx, 1990, p. 718). Marx uses the term 'necessary condition' in several places. It seems that he uses it to categorize elements which capital requires, but which are not part of the core logic of the capitalist mode of production.

them, ought to be added to his model of capitalist reproduction, is the wrong question to ask.

The right question is a political one. From the standpoint of workers, especially if we add the egalitarian aim of collective development of human capabilities of all, which workers practices through friendly societies, mutual aid and taking part in introduction of public services distributed according to need, the level of abstraction that is required in the analytical framework is not a matter of our assessments and judgements, it is presented to us by the political and class struggle. Following such criteria, although the core of capitalist mode of production is modelled extremely well by Marx's model at the highest level of abstraction and in its ideal average, it does not meet the requirements set by the class struggle itself. Distance of Marx's model from the object of study renders invisible precisely those elements that are from the perspective of the workers the most important ones. Since in *Capital* "examined are the essential determinants of capitalism, those elements which must remain the same regardless of all historical variations" (Heinrich, 2012, p. 31), another way to look at this is to consider Marx's objects of study to be different from the object we analyse here. In other words, although understanding of the logic of capital and refining of those insights will be necessary as long as the struggle of the workforce with capital lasts, focus and the task of the modelling whose contours we are trying to establish here, its rationale, is the analysis and understanding of the social reproduction as a whole from the perspective of what the workforce strives to and struggles for politically. In that sense, perhaps what we have in *Capital* and what we have here are best seen as two complementary research projects.

For the project we are developing here, the level of zoom that we approach our object of study with has to be the highest level of abstraction where the core elements of the class struggle from the perspective of the egalitarian development still appear. Considering that the task of each theoretical work is the abstraction from the object of analysis, maximum height of the level of abstraction is given by the last level at which the mentioned core elements still remain visible and distinguishable. When the height of the abstraction is too high, when we zoom out too far from our object of study, all the elements that remain visible are the elements of capital, which in turn limits, narrows down, possible interpretations of all the changes in the social order as the changes caused by the interest and movement of the capital and its elements. Explaining the problem of one-sided Marxism, Lebowitz phenomena of attributing all social changes to capital explains with an "inherently functionalist cast to the argument that flows from Capital", whose roots are in the absence of workers as a subject in Capital. Therefore, Lebowitz concludes, it logically follows that all achievements of workers struggles can only be attributed to capital and its activity:

*"if the workday declines, it is because capital needs workers to rest. If the real wage rises, it is because capital needs to resolve the problem of realization. If a public healthcare system is introduced, it is because capital needs healthy workers and needs to reduce its own costs; if a public school system, capital requires better-educated workers. If sectors of an economy are nationalized, it is because capital needs weak sectors to be operated by the State." (2003, pp. 137–8)*

If we apply the logic of Lebowitz's arguments to the question of the level of abstraction, it makes sense to ask ourselves whether the overly high level of abstraction of Marx's modelling of the capitalist mode of production is one of the reasons for the wide prevalence of one-sided Marxism.

#### **4. Towards developmental-egalitarian principles and categories**

We do not consider economics as a neutral science, or a neutral discipline. Its development is closely connected with the development of advanced capitalist countries and their interests.<sup>21</sup> While capital strives to profit, with money as the accounting unit by which the results of capital's activities are aggregated, the goals of our broader category of workers/workforce are a lot more difficult to establish. We use workers' movements, especially their practices, and theories working in such direction as a basis to establish egalitarian principles. The history of workers' movements is packed with struggles for pooling of resources and distribution according to need, including the socialist states (which we do not have the space to analyse here), the long development of organizations like Friendly societies, and public institutions exemplified by the Tredegar Medical Aid Society becoming the model for the established of the UK universal health coverage (Borsay, 2003; Hoffman, 1921; Mooney, 2000). We start from the full development of human capacities for all (M. A. Lebowitz, 2012, p. 144) – for easier referring; we call it the starting developmental-egalitarian principle. We derive other two principles from a socialist motto: “from each, according to their ability, to each according to their need” – Istvan Meszaros calls it “the orienting principle of socialist accountancy” (1995, p. 817). Since humans can only contribute according to abilities when many of their needs are met, we have to reverse the order of the maxim. Our first developmental-egalitarian principle is therefore “to each according to their needs”, followed by the second one, “from each according to their ability”. History of workers self-organization in the UK testifies to the importance of those principles for the reproduction and development of the workforce.<sup>22</sup> The second principle is

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<sup>21</sup> For a detailed study of the role states in the development of economics, see Fourcade, who despite occasional significant obstacles to the developed of economics by the states like Japan and France (2010, pp. 185–236, 245–253; Porter, 1996, pp. 55–71), concludes: “Whatever its forms, the institutionalization of economic knowledge into the state apparatus was the single greatest impetus propelling the transformation of economics into a highly technical, mathematically oriented discipline. In fact, public or quasi-public agencies often harbored the most mathematical types of economic research before they became well accepted within academia.” (2010, pp. 247–8). Varoufakis, Halevi and Theocarakis also provide a detailed account of the state and various agencies (2011), while Douglas Dowd rightly asks the question of interest of the ruling classes to hide the role of the state in the development of economics, in order to make it easier to present economics as a neutral, objective science behind which there are no particular political and economic interests (2004, pp. 13–22). The role of the state in economics has been especially important during the crisis, when institutional economics, like that of John Commons in the US and John Maynard Keynes in the UK, emphasised the importance of state interventions and inclusion of the state in the economic theory (Yonay, 1998, pp. 35–76). However, nowhere is the role of the state in the development of economics as strong and as undisputed as it is in the development of national accounting (Carson, 1975; Hagen, 1949; Kenessey, 1994; Studenski, 1958; A. Vanoli, 2005).

<sup>22</sup> For the history of friendly societies, see (Cordery, 2003; Gosden, 1963); for a left political perspective on their importance in the history of struggles, see (Thompson, 1963), and for the history of British public health, see (Borsay, 2003; Hart, 2006).



a lot harder to achieve, and it has often been forgotten in the history of socialist states and egalitarian movements (Lebowitz, 2010a, pp. 78–81). While economics largely assumes primacy of private ownership of the means of production, and while it treats wage labour contracts as a matter of free choice of workers, our goal is to capture the features of productive social order which influence the development of workers to contribute according to their abilities.<sup>23</sup> Given that it is highly unlikely that we can express those in monetary terms in a satisfactory manner, for quantitative and qualitative measurements, we will have to turn to composite indicators and proxy variables when data are scarce (Nardo et al., 2005). From the internal perspective of individual productive units like firms, having socialist orienting principles for the accountancy also necessarily includes measurements of various model of workers' self-management where it is possible.<sup>24</sup> Since the impact of self-management critically depends on workers' knowledge about the finance, law and management, aspects necessary to run firms, education of workers within firms is an essential element that has to be required and measured. Furthermore, workforce has to be able to get educated parallel with work – that is also another prerequisite for changing positions/roles at workplaces.<sup>25</sup> From the broader social perspectives (local, regional, state, international associations), developmental-egalitarian principles also necessarily have to include organizational possibilities and workforce capabilities to manage the core aspects of their societies for the purposes of planning and insight in business processes, which implies access to all the business labour processes, documentation and accounting books.<sup>26</sup>

*Table 2. Developmental-egalitarian principles*

	Name	Note
0	full development of human capacities of all	the goal of production, allocation and consumption
1	to each according to their needs	the orienting principle of socialist accounting
2	from each according to their ability	

<sup>23</sup> For an analysis of specific features of the labour contracts and inability of economics to qualify it with more precisions, see (Varoufakis et al., 2011, pp. 62–5).

<sup>24</sup> David Harvey uses nuclear power plants as an example of what cannot be run by workers, via direct democratic methods. For a defence of worker self-management even in such extremely complex and highly technologically advanced organizations, see (fkschulze, 2013).

<sup>25</sup> Lebowitz's short, but sharp commentary on the problems of self-management in Yugoslavia are a good reminder (Lebowitz, 2010b). Birkbeck College in London is a good example of an institution born through the historical struggles of workers, especially women, for the possibility to educate. Birkbeck has a nursery to assist parents while they attend the classes in the evening.

<sup>26</sup> Branko Horvat reminds us of Ernest Mandel's demand for opening of the books as a necessary prerequisite for workers management (1984, p. 142), while Lebowitz holds transparency of firms' conduct and opening of accounting books as a precondition for stopping tax avoidance, and hence for the distribution of the fruits of social production (2010a, p. 134). Although these are for now to a large extent capitalist-friendly movements, open data, open source, open knowledge and open government are important elements for the development of workforce insight into documentation and procedures of organizations.

For Lebowitz, not all education has the same attributes; most of it reinforces subservient position of the workforce to capital and private interests. Hence only some education should be seen as positive in our balance sheet (2010a, pp. 48–50). Here, we differ slightly. Standard education still has to be highly valued, but special priority, a much higher weighing in our composite indicators, should be given to those forms of education necessary for knowledgeable participation in self-management and direct democracy across all sectors of social reproduction. In his *Socialist Alternative*, Lebowitz defines his notion of human development concept further. He develops the socialist triangle concept, the three sides of an organic whole of the socialist social order: one, social ownerships of the means of production; two, social production organizers by workers; three, goal of productive activity is satisfaction of communal needs and purposes (2010a, pp. 105–6).

Although we cannot formulate the egalitarian mode of production in detail here, to assist us developing it, we will formulate the following thesis: all activities which on macro level and to a significant extent contribute to implementation of developmental-egalitarian principles will be considered as elements of the egalitarian mode of production. Unlike Marx's notion of the capitalist mode of production being analysed at its ideal average, for the reasons outlined above when discussing the level of abstraction, we start from the idea that the analytical framework should be able to capture both the universal, underlying logic connecting that what makes a production an egalitarian mode of production, and different social formations that occur when developmental-egalitarian principles are put in practice.

To remind ourselves, along with everything we have discussed, construction of developmental-egalitarian principles and of its analytical framework has to improve our ability to do the following: 1. qualitatively and quantitatively judge the achievement of workers' struggles within capitalist states throughout history, 2. assess the past and present socialist states in a politically productive and economically nuanced ways, 3. move closer to integration into one analytical framework all that workforce needs for own reproduction and development. We are especially concerned with use values, goods and services, which typically do not have the value expressed through a price at the point of final consumption and use. There we are facing a huge problem: whether it is a school of mainstream economics, classical political economy, or Marxist economics, key concepts, like value, productivity and wealth are nearly always analysed and constructed from the perspective of capital and private gains. It is therefore unrealistic to expect that the project partly outlined here can happen in a rush, or on a purely theoretical-conceptual level. In addition to foundational conceptual work, the development of the categories and analytical framework discussed here requires empirical inter-state and inter-regional comparative studies. This is especially the case for the role of the state and its public goods and services. Given how broadly and comprehensively capital dominates human activities nowadays, it is not surprising that nearly all economic schools do not consider use values delivered by public sectors to be of economic value – a significant exception are national accounts.

## **5. Value, wealth, productive labour**

Throughout the history of research into production, distribution/allocation and consumption of goods and services, concepts of value and wealth have gone through

significant changes. From mercantilists obsessed with foreign trade and gold, through Physiocrats who considered agriculture as the only surplus value producing sector and the only productive labour, to Adam Smith and his establishment as labour as such as the source of all value (Blaug, 1985, Chapters 1–2; Marx, 1973, pp. 103–4). Although Marx never developed these categories from the perspective of workers and equality, we find his related comments in quite a few places throughout his work. On the one hand, writes Marx, “bourgeois wealth, is always expressed ... as exchange value, where it is posited as mediator, as the mediation of the extremes of exchange value and use value themselves” (1973, p. 331), while “political economy has to do with the specific social forms of wealth, or rather of the production of wealth” (ibid., 853). On the other hand, real wealth from the perspective of workers consists in taking over their own surplus labour, measuring of necessary labour time by the needs of social individual, and growth of productive power of all individuals and disposable time (p. 708). In *Capital*, Marx devotes himself completely to the analysis of value from the standpoint of capital, which leaves his occasional affirmative insights about the future modes of production under the control of worker incomplete and open for various interpretations. Since at the time of Marx’s life productive elements like public services and socialist states did not exist, it makes sense that he did not engage widely in guessing what those might look like. However, today we have a long history of those actually existing egalitarian practices to research.<sup>27</sup> The example we deal with here is the question of surplus labour and surplus value. Namely, if workers fully assume the control over labour processes, the aim of economic activity is not any more accumulating capital, meaning that surpluses should not any more appear in the same forms in which they appear under the capitalist mode of production: as profit on capital, split as return on capital, rent, and interest (1969, pp. 85–6). The questions arise, if the goals are developmental-egalitarian, what is the value and in which forms do surpluses appear? What is production and what is consumption i.e. where does the production boundary lie and why? The analysis of the public sectors is one of the logical places to start addressing those questions.

*Table 3. Capitalist and egalitarian modes of production: production, consumption, surplus, outcome*

circuit	standpoint & mode of production	<u>Production</u>		<u>consumption</u>		<u>surplus value</u>		overall aggregate outcome
		model	Process	form	final	forma	accounting unit	
1	capital; capitalist	M - C (Lp, mp)	... P(k) ...	R'	M'	profit, rent	currencies	capital accumulation
2-3	worker; egalitarian A, no end user pay	M - C (Lp, mp)	... P(w) ...	<b>Uv'</b>	-	?	?	<i>growth of egalitarian social relations &amp; egalitarian</i>

<sup>27</sup> For histories of the growth of public spending, see (Lee, 2011; Lindert, 2004; Middleton, 1996, 2005). While there are empirical studies demonstrating through the concept of social wage that labour pays for the social benefits it receives through taxes, and while this research has to engage with those works in more detail (A. Shaikh & Tonak, 2001; A. Shaikh, 2003), it is the allocation mechanism “according to need” that we focus on.

2-3	worker; egalitarian B, end user partly pays	$M - C(Lp, mp)$	... $P(w) \dots$	<b><math>Uv'</math></b>	$M'$	?	?	<i>accumulation</i>
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We can write down the egalitarian mode of production:<sup>28</sup>

$$\begin{array}{ll} \text{Model A.} & M - C(Lp, mp) \dots P(r) \dots Uv' \\ \text{Model B.} & M - C(Lp, mp) \dots P(r) \dots Uv' - M \end{array}$$

Example of the model B is public housing, where only a portion of the cost is paid for by the end user. This raises an immediate question : can we speak of value and of surplus in the case of use-values without end user payment? The answer requires a separate research into concepts of value and surplus. Briefly, we prefer to pose the question the other way around. The key features of economic activities are that they are purposeful and expansive: more value is created than it is used up. If we cannot speak of value and surplus, how do we explain the history of workers self-organization through friendly societies? What other answer can there be other than that it created value from the perspective of workers? Or, how do we explain that public health system in the UK, the largest single annual expenditure in the British economy, has been inspired by one such organization, the Tredegar Workmen's Medical Aid Society? If there is no value and surplus in public health provision, and indeed in education, why would European states spend on average 13.5% of GDP on health and education<sup>29</sup>, employing a significant portion of the workforce to do so?<sup>30</sup> Although many historians rightly emphasise that drastic growth of public services, partly allocated according to needs, can to a significant extent be explained by political decisions to keep the workers away from the radical left ideas and political parties, that also seems to be an argument in support of our thesis on the existence of value and surpluses. Since, if public services are how capitalism was made more desirable to workers, that makes public services useful and wanted from the standpoint of workers.<sup>31</sup> Something being considered useful and wanted in the common sense meaning of the terms does not make it automatically have value in economic sense. However, our argument in favour of considering some of the public services having value from the standpoint of workers is twofold here: one, centrality of public goods and services for the reproduction and development of the workforce; two, in the states where those goods and services are not provided publicly, health and education concretely, they are provided as highly priced commodities. Whether this value is a form of economic value, or whether it escapes the boundaries of the research field that economics covers, is an additional question to consider.

<sup>28</sup> State production can be in the circuit of capital too. Good example is arms industry, which partly produces use-values for the state, partly exports its products.

<sup>29</sup> Eurostat, General government expenditure by function (COFOG), EU27, 2011 average.

<sup>30</sup> In the 3rd quarter of 2012., 19.4% of the total workforce in the UK is in the public sector (Carless, 2013). For a better presentation of 2011 data, see <http://www.guardian.co.uk/news/datablog/2011/nov/21/public-sector-employment-uk-map#data>

<sup>31</sup> For women struggles for collectivization of the part of the cost of reproduction and for egalitarian allocation in the UK and the US, see (Fousekis, 2011; Wilson, 1977).

Table 4. Capitalist &amp; egalitarian modes of production: surplus value in the form of outcomes

circuit	standpoint & mode of production	distribution-consumption		<u>surplus value</u>		overall aggregate outcome
		form	final	form	accounting unit	
1	capital; capitalist	C'	M'	profit, rent	money, currencies	capital accumulation
2-3	worker; <b>egalitarian A</b> , no end user pay	Uv'	-	<b>OUTCOMES</b>	[ <b>EDUCATION</b> ] standard: <i>increase</i> ; finance, legal & management (firms and macro) literacy: <i>increase</i> (positive weighing)	growth of egalitarian social relations & egalitarian accumulation
2-3	worker; <b>egalitarian B</b> , end user partly pays	Uv'	M		[ <b>HEALTH</b> ] injuries at work, depression: <i>decrease</i> [ <b>HOUSING</b> ] % total housing stock publicly owned: <i>increase</i> ; M: <i>decrease</i>	

In the column *accounting unit*, we give some examples of positive outcomes from the standpoint of workforce. The format is as follows: [SECTOR] indicator: *desired direction of change*. For example, [HOUSING] % total housing stock publicly owned: *increase*; M: *decrease*, has to be read: in the housing sector, first indicator is the percentage of total housing stock publicly owned, the goal is for it to grow; second indicator is end user monetary payment, the goal is for it to decrease. As we mentioned above, not all education is equally important from the developmental-egalitarian standpoint, hence the inclusion of those specially important skills with an additional positive weighing as an indicator of surplus in the value they create (2010a, p. 134). The same could be said for health, where illnesses at workplace could be treated as specially important through weighing. With the public health services and goods distributed according to need and no payment by the end user at the point of use, all three developmental-egalitarian principles are satisfied: good health is one of the key parameters for moving towards full development of human capabilities; health services and goods are in the case of the UK to a large extent distributed according to need, which contributes to everyone being in a better position to contribute to the society according to one's abilities. In the case of the same health goods and services provided through commodities on the markets with the profit as the goal, according to Marx's model of the capitalist mode of production value would have been produced. If we accept the claim that public delivery of the same use-values is not value and surplus creating, there are various possible explanations.

First option is that economic value and surplus arise only when use-values take the form of commodities, produced specifically to be exchanged on the markets in order to make a profit. In that case, economic value and its surplus would be a feature of things – commodities – particular to the capitalist mode of production, a feature not applicable to all things that satisfy needs by the delivery of use-values. Furthermore, to explain what occurs when a different sort of things – public goods and services delivered without payment by the end user at the point of delivery – meet needs by delivering use values, we would need a different understanding of value, or a different category all together.

Second option is that the category of economic value is a universal feature of things that meet needs by delivering use-values, even when the processes through which this delivery occur significantly differ. Given that public services in advanced countries today do provide a significant portion of total final goods and services, it seems that to account for the delivery of all goods and services in those advanced states consistently, we do need a single concept of value. This is not possible if we stick with the first option, since we give up the possibility of value as a measure of human activities under various simultaneously existing systems of meeting of needs. In other words, with the first option, we cannot account for the large portion of actually existing economic (public sector) and other human activities (household labour).

A possible way out of the understanding in which the capitalist mode of production is the only value creating provision of goods and services and the only way of meeting needs, is to acknowledge existence of another mode of production, in which both value and surplus occur. In national accounting, public sectors do create value, but there is no surplus, value created is equal total cost of production. The most widespread treatment among Marxist economists is to apply Marx's modelling of the capitalist mode of production to the public sector, thus seeing the sectors as activities that are spending the value produced elsewhere, and seeing its labour as unproductive. This is the above mentioned first option. Although it is consistent with Marx's work from *Capital*, it does not help us to resolve the issues raised here. Instead, it provides us with an account of human activities from the standpoint of capital, and with a view that, from the standpoint of the workforce and human beings, accounts poorly for goods and services delivered by public sectors and household labour. Other than governance and tax collection itself, state sectors during Marx's life were limited to oppressive services, like military, police, courts. As our below graph shows, looking at the UK national statistics over the last two hundred years, there was nothing vaguely similar on such a scale during Marx's lifetime. The phenomena studied here – production in state sectors and distribution according to needs – came to existence in the twentieth century. Hence, Marx could not have studied it, nor accounted for it.

## **6. Common resources & investments: perspectives of workers and capital**

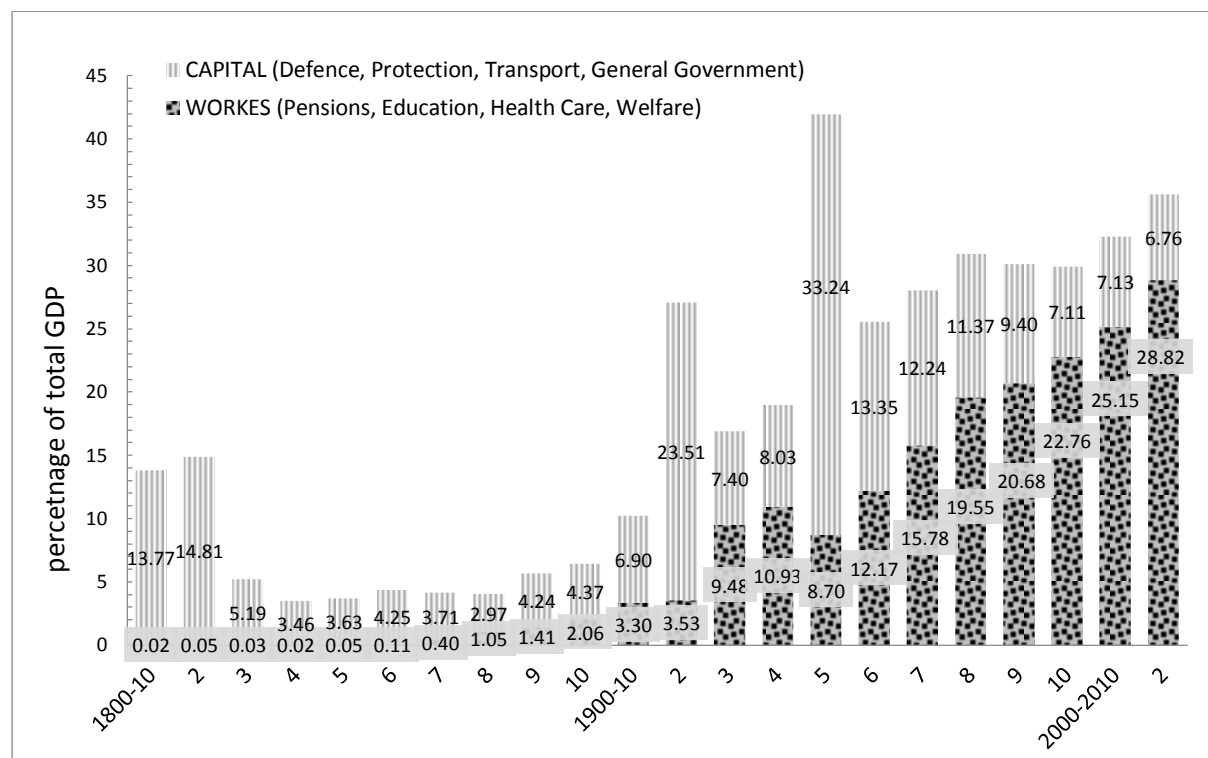
What happens when the state utilizes funds?<sup>32</sup> Is it spending as an expense, or an investment? Is it productive activity? If it is productive, how do we measure the results of its activities? Here we follow not just Lebowitz with this insistence on the standpoint, but Simon Kuznets too, who, after fathering first modern national accounts, systematically critiqued later changed national accounting for failing to explicitly define the purpose of economic activity. Hence, our answer would be: it depends on the standpoint from which we observe the economic activity and the purpose we assign to it. To understand better the character of the sectors where the funds are spent, we will look at public spending in the UK in the last two hundred years. Although data categorization is not entirely harmonized with

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<sup>32</sup> Taxes will be dealt with in future work, both conceptually and within the model. It is an important aspect without which this analytical framework cannot be complete.

the standard ESA95 national accounting of government expenditure by function<sup>33</sup>, the overlap is significant and good enough for our purpose.

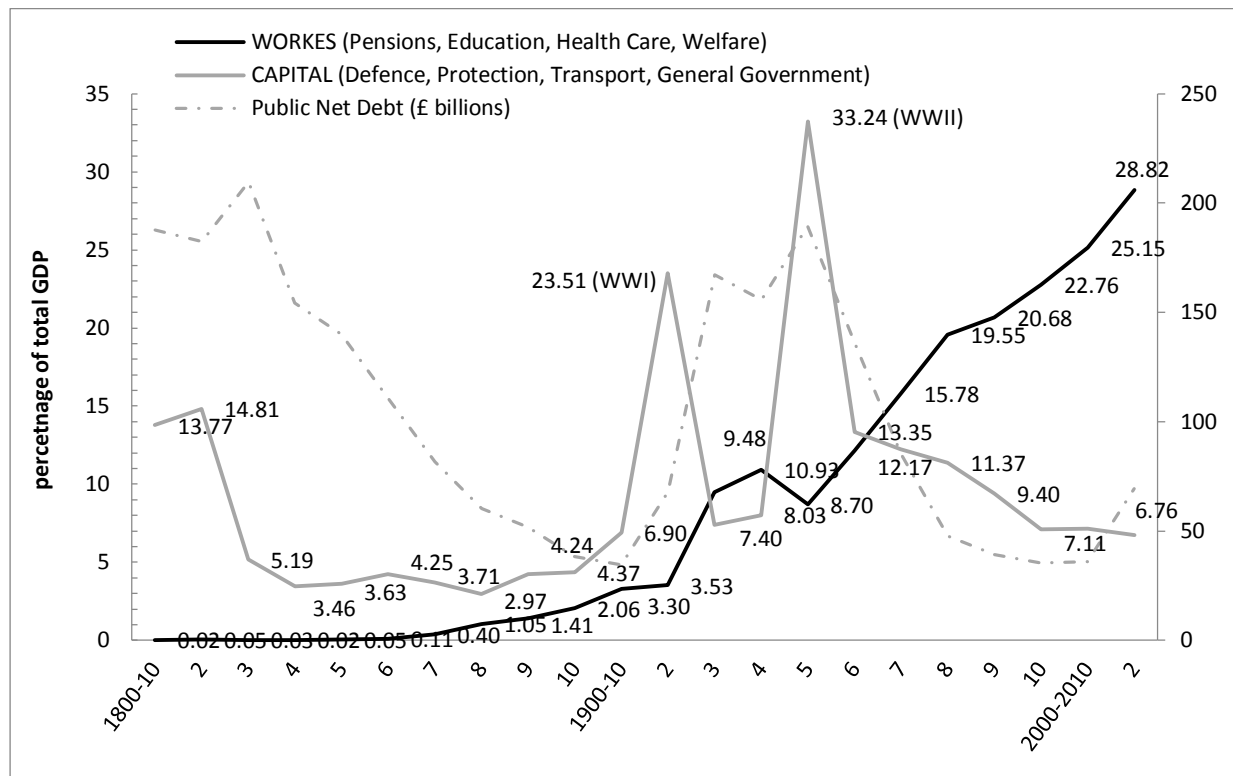
Graph 1. UK spending, decade average, 1800 - 2015 , workers + capital (cumulative)<sup>34</sup>



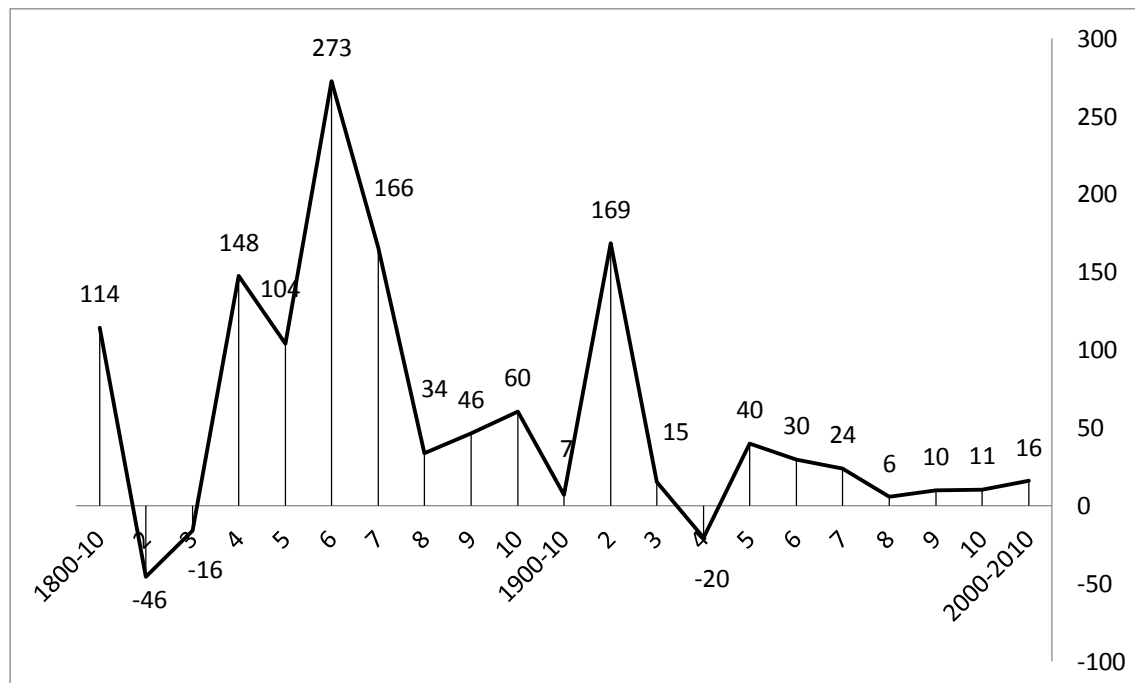
<sup>33</sup> General public services; Defence; Public order and safety; Economic affairs; Environmental protection; Housing and community amenities; Health; Recreation, culture and religion; Education; Social protection.

<sup>34</sup> Data for Graphs, 1, 2 and 3 is from <http://www.ukpublicspending.co.uk/>. For their combined sources, see <http://ukpublicspending.blogspot.co.uk/2009/04/sources-for-public-spending-data-series.html>

Graph 2. UK spending, decade average, 1800 - 2015, workers Versus capital



Graph 3. UK spending, decade average, 1800 - 2015 , workers, rate of growth (decades, percentage)



We split the categories in two sets, those desirable from the standpoint of workers (pensions, education, health care, welfare), and from the standpoint of capital (defence, protection and security, transport, general government). A few comments are required here. First, state administration, general government category here, plays an important and



constructive role from the perspective of workers too, but for now judge that its functions are much more important to capital, whose overall mode of production could not be reproduced and expanded without the state administration. Second, a smaller portion of activities from the categories we assigned to workers gets carried out by private firms, thus importing the logic of capital.<sup>35</sup> Third, we have to consider and factor in that a significant amount of funds and assets used up in delivering categories assigned to workers does not reach end users. We leave those questions open for now. We can see from graphs 1 and 2 that although the volume of investment favouring workers became the largest part of the overall public provision, it happened in the twentieth century.<sup>36</sup>

From the perspective of most economic schools, we are dealing here with public expenditure: the state spends in advance part of the newly created value from the next year by estimating the taxable revenue; at the end of the tax year it withdraws the funds it spent from circulation by collecting taxes. From the developmental-egalitarian perspective, the standpoint of the reproduction of the workers and the full development of human capabilities of all, we are dealing with productive investment in goods and services. Our starting thesis is that such production creates new value, through a mode of production that in several key aspects significantly differs from the capitalist mode of production under which domination it operates. In the production phase, costs are collectivized on the society wide level. Capital is not any more the initiator of the production, or the only manager of the division of labour, the production process is not profit driven, while the end results are not expressed in the forms of profit, rent or interest. Instead, the production process is goal driven, with the purpose of economic activity being meeting needs by delivering use values. Final products are to a significant extent allocated by practicing “everyone according to their needs” egalitarian principle. Outcomes increase the well-being of the recipients in various aspects. Due to the egalitarian allocation mechanism, focus on needs, increase in solidarity in society (visible in the UK on the example of public health) and outcomes that increase human capabilities of all (loosely speaking, the category of citizen still hinders many), we can speak of an egalitarian mode of production embedded into the dominant capitalist mode. There are plethora of valid huge questions arising when such a thesis is advanced, whether we can speak of value and surpluses and in which forms do they appear being just two of them. At minimum, our aim is here to carve those questions wide open for further research, hopefully demonstrating that they are worth asking and that the thesis put forward here are worth developing further.

The more society allocates according to needs, less the recipients depend on their ability to pay individually. Here we observe two antagonistic logic of economic activity, egalitarian and capitalist one, fighting over the spheres of reproduction. To check the situation in other countries, we looked at the Eurostat data with correct ESA95 categories, split in workers (Environmental protection; Housing and community amenities; Health;

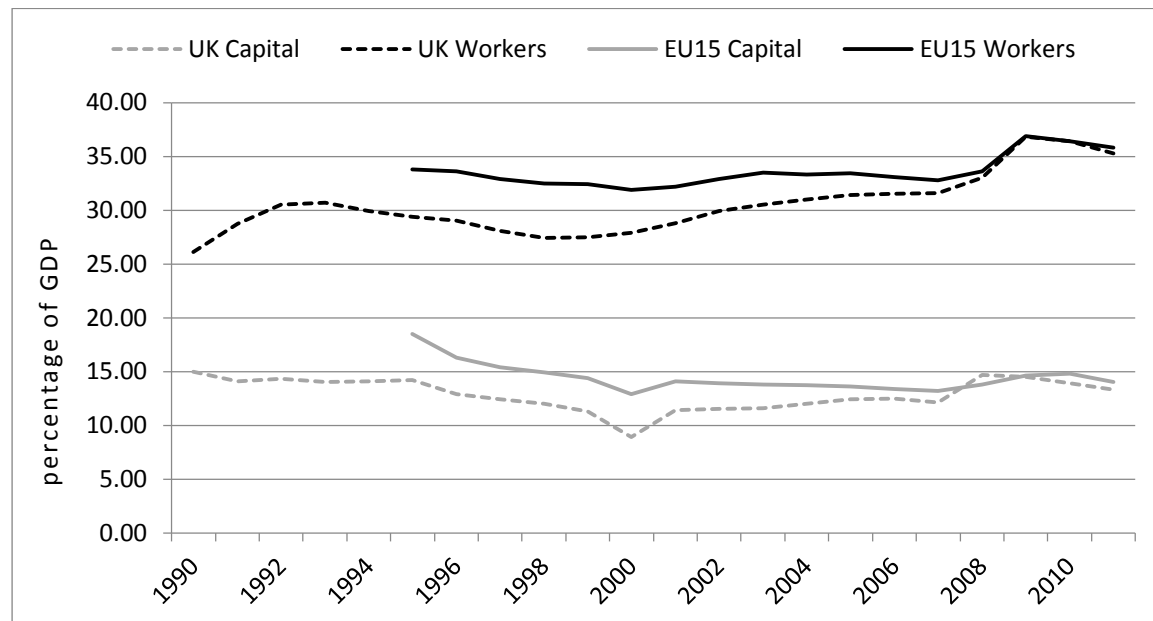
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<sup>35</sup> In the total public spending in 1995 (38.73% of GDP), public sector delivered 10.84% of public services (4.2% of the total GDP). In 2011: public spending, 45.31% GDP; private sector delivered 12.36% of public services (5.6% of the total GDP) (Author and Oxford Economics, 2008).

<sup>36</sup> The rate of growth uncovers that economic crisis and wars played an important role for the changes in government expenditure. The correlation coefficient between Public Net Debt and capital categories is 0.22, positive, but weak. While between Public Net Debt and workers categories it is -0.35, moderately negative.

Recreation, culture and religion; Education; Social protection) and capital sets (General public services; Defence; Public order and safety; Economic affairs). The results we get are very similar to what we saw in the UK.

Graph 4. Eurostat, General government expenditure by function (COFOG) [gov\_a\_exp]



Another example is Croatian national accounts for 2011, where we see drastically lower investment in workers' categories (24%) in comparison with the EU15 countries (35%).

Table 5. Croatia spending 2011, workers and capital<sup>37</sup>

		GDP 2011		333956
(millions of Kuna)		2011	% of total public spending	% of GDP
7	Total public spending	121425		36.36
701	General public services	14059	11.58	4.21
702	Defence	5008	4.12	1.50
703	Public order and safety	7827	6.45	2.34
704	Economic affairs	12954	10.67	3.88
Capital			33	11.93
705	Environment protection	641	0.53	0.19
706	Housing and community amenities	1398	1.15	0.42
707	Health care	19762	16.45	5.92
708	Recreation, culture and religion	1661	1.37	0.50
709	Education	10483	8.63	3.14
710	Welfare	47628	39.22	14.26

<sup>37</sup> Source: Annual Report of the Ministry of Finance for 2011, Table 2.5. Public spending, classification according to function, period 2009. – 2011. (2011)

<b>Workers</b>	<b>67.36</b>	<b>24.43</b>
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Let us return for a moment to the circuits of reproduction to check how do needs, most fundamental constitutive elements of the reproduction and development of capabilities of human beings overlap with the national accounting ESA95 categories. We will also look at how are needs met in terms of developmental-egalitarian principles (table 2). First column in the table 6 are needs from the circuits of reproduction, second column are forms of public financing of those needs, third column are ESA95 government expenditure by function (COFOG) categories that the need from the first column belongs to, while the last two columns are very rough estimates of the portion of the total cost of the need coming from public funds and the portion of that public funding that gets allocated according to need.

*Table 6. Workers' needs, reproduction and development and ESA95 categories*

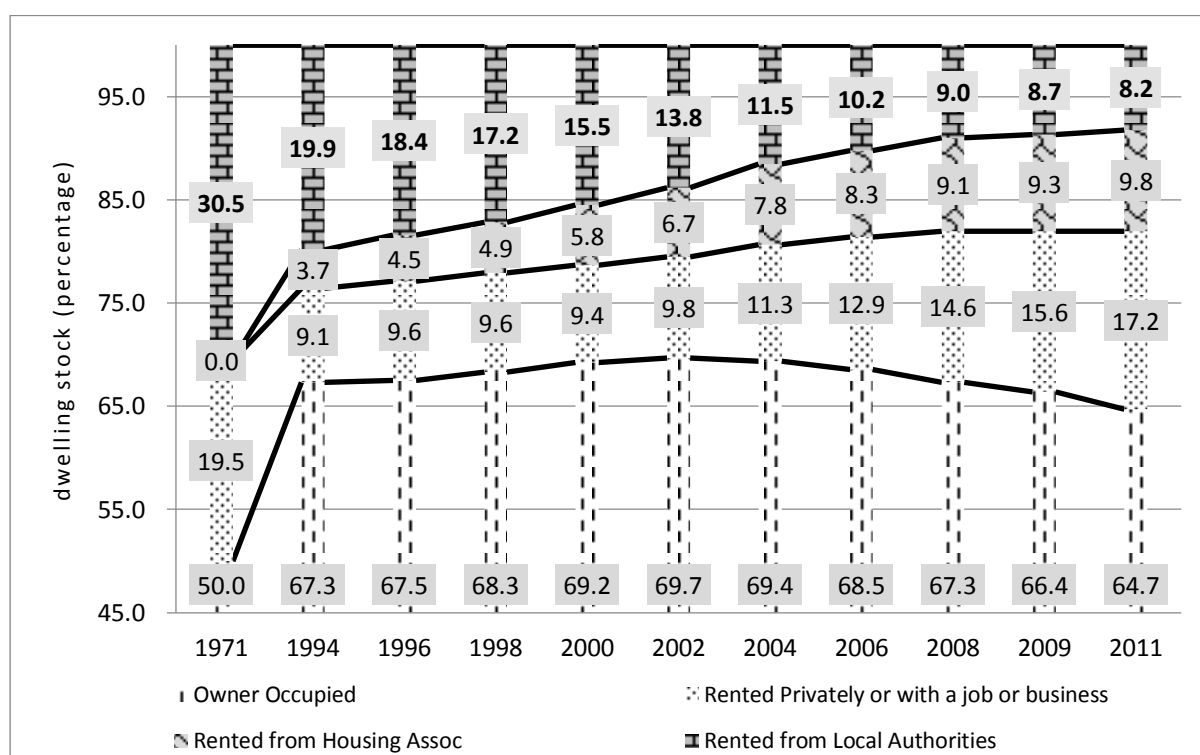
	need	public finance	General government expenditure by function (COFOG) [gov_a_exp] ESA95	publicly funded portion	portion allocated according to need
1	housing	local, state	Housing and community amenities	small	large
2	nourishment	state	Social protection	very small	medium
3	health	state	Health	very large	very large
4	clothing	-		-	-
5	parenting	state (cash)	Social protection	small	large
6	care	state (cash)	Social protection	small	medium
7	libraries	local, state	Recreation, culture and religion	very large	-
8	recreation	local, state	Recreation, culture and religion	small	-
9	public space	local, state		large	-
10	public transport	local, state	Economic affairs	large	small
11	pension	state (cash)	Social protection	large	very small
12	communication	state	Economic affairs	small	-
13	museums, galleries	local, state	Recreation, culture and religion	large	small
14	education	state	Education	large	medium
15	leisure time	-		-	-
16	energy	state	Economic affairs	small	-

We don't have the space here to enter a detailed analysis of such a broad range of needs, but few things are visible straight away. Second column indicates that a large number of needs are collectively financed, usually through a combination of local authorities and the central state funds. Last two columns are the most important ones for understanding the role of public finances in meeting a certain need, and for developing our egalitarian mode of production thesis. In a situation when publicly funded portion is large, but the portion distributed according to need is small, aggregate value is small from the developmental-

egalitarian perspective. Good example is public transport in London/UK, where although the portion of public funding of the public transport is large, distribution according to needs is relatively small: over sixty and under eighteen year olds are entitled to free use, while students have a discount. Public transport thus still leaves majority of inhabitants to use the service according to individual ability to pay regardless of their needs. Such distribution mechanism is discriminatory, especially toward the poorest, who have to give up a significant portion of their weekly budget to travel. That in turn significantly reduces their ability to develop their human capacities, and is hence against the developmental-egalitarian principles.

Housing is a sector where the changes are very visible in the UK. Aggregate data on the tenure type shows enormous structural changes in the past forty years. Given that in 1970's the portion of publicly owned housing stock distributed according to need was a significant part of the total housing stock, we are interested to find out how did those changes influence the cost of reproduction from the perspective workers individually and the workforce as whole, and what happened with the allocation.

Graph 5. UK dwelling stock (1971, 1994-2011), by tenure



We see that in 1971., 30.5% of the entire housing stock was rented from the public sector, while in the 2011. it is only 8.2%.<sup>38</sup> Unlike privately rented and privately owned dwellings through the mortgage, where allocation mechanism is according to one's ability to pay, or according to the inherited individual wealth, public housing in UK is distributed according to

<sup>38</sup> Statistics come from the British Department for Communities and Local Government, Dwelling stock (including vacants) ,Table 101: by tenure, United Kingdom (historical series)  
<https://www.gov.uk/government/statistical-data-sets/live-tables-on-dwelling-stock-including-vacants>

need, by assessing candidates on a number of criteria.<sup>39</sup> Housing is one of the most elementary needs and the largest individual cost in the reproduction. It is therefore desirable from the development-egalitarian perspective to have as large as possible portion of the total dwelling stock distributed according to need, which mostly means some sort of social ownership and allocation according to planning and assessment, and not according to markets and individual wealth. According to the statistics from 2009., national average weekly cost of renting from local authorities was £66.86, while the same cost when renting privately owned dwellings was £139.8.<sup>40</sup> In other words, when renting privately, workforce paid individually 109% more than if they rented from the local authorities, plus the allocation was not done any more according to needs and priorities.

*Table 7. Rental dwelling cost, public and private difference, 2009. (average)*

	weekly rent		difference	housing ratios	
	public	private		private	public
England	£66.86	£139.80	109%	1.09	-0.52
London	£82.38	£221.89	169%	1.69	-0.63

The negative impact on the households is by far the worst in London, where workforce paid 169% on the top of public housing rental cost. According to the OECD, housing is the largest single individual cost in the monthly budget of households, accounting in the UK on average for 23% of the gross adjusted disposable income (OECD, 2012b).

## 7. Egalitarian mode of production and the form of value

From the example of housing we see the conflict and antagonism between the workforce and capital. The question we are opening up here is the following: while capital strives to profits and self-expansions, what does the workforce strives to? We tried to answer it through the history of workers movements and egalitarian principles which were practiced through the collective approach to one of the most precious aspects of the development of human capabilities, and through the reduction of risk by pooling of resources and allocation according to need. British National Health Service, we claim, is one such example and the expression of such spirit on the grand scale. Put differently, on the macro level of economic-social activity, there's a clash between the capitalist mode of production and human development, expressed through what we called here tentatively the egalitarian mode of production. If the workforce is striving towards collective approaches, pooling of resources and distribution according to need, how do we capture such activities? Which categories and units of measure do we use to follow the dynamic of the egalitarian mode of production and the forms its takes under various social formations?

<sup>39</sup> For the role of inheritance in inequality, see the following studies: France (Piketty, 2011), Britain (Harbury & Hitchins, 2011) and the US (Bowles & Gintis, 2002).

<sup>40</sup> Source: author calculation and Cambridge Centre for Housing and Planning Research, The Guide to Local Rents (Dataspring, 2010).

Discussing it as a concept in economic sense, Robert Heilbroner defined the general problem of value as “the effort to tie the surface phenomena of economic life to some inner structure or order”. The work, he continues, has two distinct tasks: first is the “empirical investigation into the provisioning process”, and the second is on a “level of abstract inquiry – an inquiry directed not at the ‘facts’ of economic life, but at some structure or principle ‘behind’ the facts. In this second of its tasks, economics deals with empirical data only as indications – necessarily incomplete and very often misleading – with respect to the object of its investigation” (Heilbroner, 1991). For Marx, one of the main failing of the classical political economy was that it never managed, analysing commodities and their value, to discover the form through which value transforms into exchange value. Value form, Marx believes, is the most abstract and most universal form of the capitalist mode of production. However, quite the opposite to the naturalization of value conceptualized in different ways by classical political economists before Marx and neoclassical economics, Marx left us on this question with an extremely important insight: value form in capitalist mode of production is not an eternal, timeless form of social production. He warns us what is at stake here: “If we make the mistake of treating it as the eternal natural form of social production, we necessarily overlook the specificity of the value-form, and consequently of the commodity-form together with its further developments, the money form, the capital form, etc” (1990, p. 174). It is for those reasons that at this point it is worth remembering how Marx opens the first volume of Capital:

*The wealth of societies in which the capitalist mode of production prevails appears as “an immense collection of commodities”; the individual commodity appears as its elementary form. Our investigation therefore begins with the analysis of the commodity.*  
(Marx, 1990, p. 125)

Our thesis here is that through their centuries long struggles, along the dominant capitalist mode of production, workers movements and organizations have managed to install the egalitarian mode of production in certain sectors within capitalist societies. Public health, education, care programmes and public housing, all to a significant extent distributed according to the need principle, are examples and results of those struggles and tendencies – graphs 1, 2 and 3 show the historic aggregate growth of the overall social wealth assigned to public sectors’ activities. As the volume and quality of goods and services distributed according to needs grows, egalitarian social relations grow with them, and vice versa. In Marx’s words, we would open our task with the following paragraph:

*The wealth of societies in which the egalitarian mode of production penetrates, appears as “an immense collection of use values allocated according to need principle”; the use value allocated in such way appears as its elementary form. Our investigation therefore begins with the analysis of the use value distributed according to needs.*

This paraphrasing uncovers a problem. The forms in which developmental-egalitarian value manifests, be it goods, services or outcomes, are quite diverse. The elementary universal form, the way commodity appears in capitalist mode of production, may not exist in the egalitarian mode of production in a similar way. Though in antagonism and in struggle with each other, the two modes of production do not have to have the same internal structure, they do not have to mirror each other in its core elements and their relations. This does not

mean that systemic features of equality in society, their universality, the logic that propels their inner structuring, their bloodstream, do not appear in recognizable forms whose quantity and quality can be accounted for in some way. It is precisely Marx's realization that forms (money, value, capital) are specific to different modes of production that opens up the space for an investigation like ours. The political importance – of figuring out what those forms, their tendencies and possible measures may be – is in providing the past, existing and future attempts to overcome capitalism in practice with a plausible logic of their own, one that counters the plausibility of the logic of profits and private wealth as the best guarantors of well-being and cooperation.

## 8. Appendix: Classifying sources of government revenue according to Marx's categories

Table 8. Sources of government revenue, 2012–13 forecasts

[L]	<b>Income tax</b> (gross of tax credits)	26.2	[A] Articles of consumption
	Tax credits counted as negative income tax	-0.7	25.73
[L]	National insurance contributions	17.9	
[A]	Value added tax	17.2	[L] Labour
	Other indirect taxes	10.8	48.50
[A/C]	Fuel duties *	4.6	
[A]	Tobacco duties	1.7	[C] Capital
[A]	Alcohol duties	1.8	25.93
[A]	Betting and gaming duties	0.3	
[A]	Vehicle excise duty	1.0	
[A]	Air Passenger duty	0.5	Total
[C]	Landfill tax	0.2	99.46
[C]	Climate change levy	0.1	
[C]	Aggregates levy	0.1	
[A]	Customs duties	0.5	
[C]	Capital taxes	2.7	
	Capital gains tax	0.6	
	Inheritance tax	0.5	
	Stamp duty land tax	1.1	
	Stamp duty on shares	0.5	
[C]	Company Taxes	12.5	
	Corporation tax (net of tax credits)	7.4	
	Petroleum revenue tax	0.3	
	Business rates	4.4	
	Bank levy	0.4	
[L]	<b>Council tax</b> (net of Council Tax Benefit)	4.4	

[C]	Other taxes and royalties	4.7
[C]	Interests and dividends	0.8
	Gross operating surplus, rent, other	
[C]	receipts and adjustments	3.1
	total	99.6

\* Table 1D gives us disaggregated use of petroleum. We disaggregate the transport sector by determining the ratio of sectorial use of petroleum in transport in Table 2.11, and by applying it back to Table 1D.

Source: A Survey of UK Tax system, (Roantree & Browne, 2012, p. 4)

<b>Table 1D Primary and secondary fuels consumed by final users 2011</b>			
Percentage per sector for petroleum		Percentage of fuel duties	
[C]	Industry (means of production)	7	0.32
	Transport	86	
[A]	Domestic (articles of consumption)	55.31	2.54
[C]	Industry (means of production)	21.05	0.97
[C]	Services (means of production)	9.64	0.44
[A]	Domestic (articles of consumption)	4	0.18
	Others	2	0.09
	Total	99	4.55

Source: Digest of UK Energy Statistics (Office for National Statistics, 2012a, p. 23) and own calculation.

<b>Table 2.11: Transport energy consumption re-allocated to domestic, industrial and service sectors 2010</b>		
Total (Terawatt hours)		%
Industry (including energy industries)	157	24.47
Domestic	412.6	64.32
Services	71.9	11.21
All	641.5	100

Source: All ECUK data tables in terawatt hours (Office for National Statistics, 2012b) and own calculation .



## Bibliography

- Anielski, M. (1999). Measuring the sustainability of nations: the genuine progress indicator system of sustainable wellbeing accounts (p. 52). Presented at the The Fourth Biennial Conference of the Canadian Society for Ecological Economics: Ecological Sustainability of the Global Market Place, Montreal, Canada. Retrieved from <http://www.anielski.com/Documents/Sustainability%20of%20Nations.pdf>
- Blaug, M. (1985). *Economic Theory Retrospect* (4th ed.). Cambridge University Press.
- Borsay, A. (Ed.). (2003). *Medicine in Wales C.1800-2000: Public Service or Private Commodity?* (Corr. 2nd Print.). University of Wales Press.
- Bowles, S., & Gintis, H. (2002). The Inheritance of Inequality. *Journal of Economic Perspectives*, 16(3), 3–30. doi:10.1257/089533002760278686
- Carless, E. (2013). *Regional analysis of public sector employment 2012*. ONS, Labour Market Division. Retrieved from <http://www.ons.gov.uk/ons/rel/pse/public-sector-employment/regional-analysis-of-public-sector-employment--2012/art---regional-analysis-of-public-sector-employment-2012.html>
- Carson, C. (1975). The history of United States national income and product accounts: the development of an analytical tool. *Journal of the International Association for Research in Income and Wealth*, (21), 153–183.
- Clifton, J., Comín, F., & Díaz Fuentes, D. (2006). Privatizing public enterprises in the European Union 1960–2002: ideological, pragmatic, inevitable? *Journal of European Public Policy*, 13(5), 736–756. doi:10.1080/13501760600808857
- Cobb, C. W., & Cobb, J. B. (1994). *The Green National Product: A Proposal Index of Sustainable Economic Welfare*. University Press of America.
- Cordery, D. S. (2003). *British Friendly Societies, 1750-1914*. Palgrave Macmillan.
- Costa, M. D., & James, S. (1975). *The Power of Women & the Subversion of Community* (3rd ed.). Wages for Housework.
- Costanza, R., Hart, M., Posner, S., & Talberth, J. (2009). *Beyond GDP: The Need for New Measures of Progress* (No. 4) (p. 46). Boston University, Frederick S. Pardeen Center for the Study of the Long-Range Future. Retrieved from <http://www.bu.edu/pardee/publications/pardee-paper-004-beyond-gdp/>
- Dataspring. (2010). *Guide to local rents 2009 Part I: Cross Tenure Rents*. Cambridge Centre for Housing and Planning Research (CCHPR), Department of Land Economy, University of Cambridge. Retrieved from <http://www.dataspring.org.uk/outputs/detail.asp?OutputID=233>
- Degrasse, R. W. (1983). *Military Expansion, Economic Decline: The Impact of Military Spending on U.S. Economic Performance* (Expanded.). Interactive Skills Pr.
- Dowd, D. (2004). *Capitalism and Its Economics: A Critical History* (New edition.). Pluto Press.
- Dussel, E. (2001). *Towards An Unknown Marx: A Commentary on the Manuscripts of 1861-63* (1st ed.). Routledge.
- Eisner, R. (1988). Extended Accounts for National Income and Product. *Journal of Economic Literature*, 26(4), 1611–1684. doi:10.2307/2726857
- Federici, S. (1975). *Wages Against Housework*. Falling Wall Press [for] the Power of Women Collective.
- Fine, B., & Milonakis, D. (2008). *From Political Economy to Economics: Method, the Social and the Historical in the Evolution of Economic Theory* (New Ed.). Routledge.
- fkschulze. (2013, January 22). “I wouldn’t want my anarchist friends to be in charge of a nuclear power station”: David Harvey, anarchism, and tightly-coupled systems. *libcom*. Retrieved from

<http://libcom.org/library/i-wouldnt-want-my-anarchist-friends-be-charge-nuclear-power-station-david-harvey-anarchi>

- Folbre, N., & Wagman, B. (1993). Counting Housework: New Estimates of Real Product in the United States, 1800-1860. *The Journal of Economic History*, 53(2), 275–288.
- Fourcade, M. (2010). *Economists and Societies: Discipline and Profession in the United States, Britain, and France, 1890s to 1990s*. Princeton University Press.
- Fousekis, N. M. (2011). *Demanding Child Care: Women's Activism and the Politics of Welfare, 1940-1971*. University of Illinois Press.
- Gilbert, M., Jaszi, G., Denison, E. F., & Schwartz, C. F. (1948). Objectives of National Income Measurement: A Reply to Professor Kuznets. *The Review of Economics and Statistics*, 30(3), 179–195. doi:10.2307/1926747
- Gosden, P. H. J. (1963). *The Friendly. Societies in England, 1815-1875...* Manchester University Press ND.
- Hagen, E. (1949). National Accounting Systems and the European Recovery Program. *The Accounting Review*, 24(3), 248–254.
- Harbury, C., & Hitchens, D. (2011). *Inheritance and Wealth Inequality in Britain*. Routledge.
- Hart, J. T. (2006). *The Political Economy of Health Care: A Clinical Perspective*. Policy Press.
- Hart, J. T. (2010). *The Political Economy of Health Care: Where the NHS Came from and Where it Could Lead* (2nd Revised edition.). Policy Press.
- Harvie, D. (2003). *All labour is productive and unproductive* (No. 2003/2). Department of Economics and Politics, The Nottingham Trent University. Retrieved from [http://www.ntu.ac.uk/research/document\\_uploads/31292.pdf](http://www.ntu.ac.uk/research/document_uploads/31292.pdf)
- Heilbroner, R. (1991). Economics as Universal Science. *Social Research*, 58(2), 457–474.
- Heinrich, M. (2012). *An Introduction to the Three Volumes of Karl Marx's Capital*. (A. Locascio, Trans.). Monthly Review Press, U.S.
- Hennessy, R. (1997). *Materialist Feminism: A Reader in Class, Difference, and Women's Lives*. Routledge.
- Hoffman, F. L. (Frederick L. (1921). *National health insurance and the friendly societies*. Newark, N.J., Prudential press. Retrieved from <http://archive.org/details/nationalhealthi00hoffgoog>
- Hopmann, S. T., Brinek, G., & Retzl, M. (Eds.). (2007). *Pisa Zufolge Pisa - Pisa According to Pisa: Halt Pisa, Was Es Verspricht? - Does Pisa Keep, What It Promises?: Hält PISA, was es verspricht? /Does ...* Lit Verlag.
- Horvat, B. (1984). *Politicka ekonomija socijalizma EKONOMIJA SOCIJALIZMA*. GLOBUS.
- IMF. (2010). *System of National Accounts 2008*. United Nations.
- Ironmonger, D., & Soupourmas, F. (2002). *Calculating Australia's Gross Household Product: Measuring the Economic Value of the Household Economy 1970-2000* (Research paper No. 833) (p. 20). Melbourne, Australia: Department of Economics, The University of Melbourne.
- Itoh, M. (1988). *The Basic Theory of Capitalism: Forms and Substance of the Capitalist Economy*. Palgrave Macmillan.
- Kane, R. (2012). *Measures and Motivations: U.S. National Income and Product Estimates During the Great Depression and World War II* (MPRA Paper No. 44336). University Library of Munich, Germany. Retrieved from <http://ideas.repec.org/p/pramprapa/44336.html>
- Kenessey, Z. (1994). *The Accounts of Nations*. IOS Press.
- Kuznets, S. (1948). National Income: A New Version. *The Review of Economics and Statistics*, 30(3), 151–179. doi:10.2307/1926746
- Kuznets, S. S. (1953). National Income and Economic Welfare. In *Economic change: selected essays in business cycles, national income, and economic growth* (pp. 192–215). Norton.
- Lebowitz, M. (2003). *Beyond capital : Marx's political economy of the working class* (2nd ed.). Macmillan.

- Lebowitz, M. (2010a). *The Socialist Alternative*. Monthly Review Press, U.S.
- Lebowitz, M. (2010b). Sedam teških pitanja. *Slobodni Filozofski*. Retrieved from <http://www.slobodnifilozofski.com/2010/07/michael-lebowitz-7-teskih-pitanja.html>
- Lee, C. (2011). *The Growth of Public Expenditure in the United Kingdom from 1870 to 2005*. Palgrave Macmillan.
- Lindert, P. H. (2004). *Growing Public: Volume 1, The Story: Social Spending and Economic Growth since the Eighteenth Century* (2nd ed.). Cambridge University Press.
- Marical, F., d' Ercole, M. M., Vaalavuo, M., & Verbist, G. (2008). Publicly provided services and the distribution of households' economic resources. *OECD Journal: Economic Studies*, 2008(1), 1–38.
- Marx, K. (1969). *Theories of surplus value* (Vols. 1-3, Vol. 1). London: Lawrence & Wishart.
- Marx, K. (1973). *Grundrisse: Foundations of the Critique of Political Economy*. Penguin.
- Marx, K. (1990). *Capital* (Vol. 1). Penguin.
- Marx, K. (1991). *Capital 3* (Vol. 3). Penguin.
- Marx, K. (1992). *Capital 2*. (D. Fernbach, Trans.) (2nd ed.). Penguin Classics.
- Marx, K., & Engels, F. (1990). *Collected Works of Karl Marx and Friedrich Engels, Vol. 32: Concludes Theories of Surplus Value*. Intl Pub.
- Meszaros. (1995). *Beyond Capital Pb: Toward a Theory of Transition*. New York University Press.
- Middleton, R. (1996). *Government Versus the Market: The Growth of the Public Sector, Economic Management and British Economic Performance, C. 1890-1979*. Edward Elgar Publishing, Incorporated.
- Middleton, R. (2005). *The growth of government 1945-95: another British peculiarity* (p. 20). University of Bristol. Retrieved from [http://eis.bris.ac.uk/~hirm/Downloadpapers/Middleton%20\(1995\)%20The%20growth%20of%20government%201945-95%20con%20ver.pdf](http://eis.bris.ac.uk/~hirm/Downloadpapers/Middleton%20(1995)%20The%20growth%20of%20government%201945-95%20con%20ver.pdf)
- Ministarstvo financija. (2011). *Godišnje izvješće Ministarstva financija za 2011 godinu*. Ministarstvo financija, Vlada Republike Hrvatske. Retrieved from <http://www.mfin.hr/hr/godisnjaci-ministarstva>
- Mooney, G. (2000). *Class Struggle and Social Welfare*. Routledge.
- Murphy, M. (1978). The Value of Nonmarket Household Production: Opportunity Cost versus Market Cost Estimates. *Review of Income and Wealth*, 24(3), 243–55.
- Nardo, M., Saisana, M., Saltelli, A., Tarantola, S., Hoffman, A., & Giovannini, E. (2005). *Handbook on Constructing Composite Indicators: Methodology and User Guide*. Retrieved from <http://dx.doi.org/10.1787/533411815016>
- OECD. (2012a). *Eurostat-OECD Methodological Manual on Purchasing Power Parities*. OECD Publishing.
- OECD. (2012b). *OECD Better Life Index: Housing*. OECD Publishing. Retrieved from <http://www.oecdbetterlifeindex.org/topics/housing/>
- OECD. (2013). *National Accounts at a Glance 2013*. Paris: Organisation for Economic Co-operation and Development. Retrieved from [http://www.oecd-ilibrary.org/content/book/na\\_glance-2013-en](http://www.oecd-ilibrary.org/content/book/na_glance-2013-en)
- Office for National Statistics. (2012a). *Digest of UK Energy Statistics 2012* (Statistics). Department of Energy & Climate Change. Retrieved from <https://www.gov.uk/government/publications/energy-consumption-in-the-uk>
- Office for National Statistics. (2012b). *All ECUK data tables in terawatt hours* (Statistics). Department of Energy & Climate Change. Retrieved from <https://www.gov.uk/government/publications/energy-consumption-in-the-uk>
- Ogle, G. (2000). *Between Statistical Imperatives and Theoretical Obsessions: An Inquiry into the Definition and Measurement of the Economy* (PhD Thesis). Retrieved from [http://users.senet.com.au/~gregogle/PhD\\_home.html](http://users.senet.com.au/~gregogle/PhD_home.html)

- Oxford Economics. (2008). *The Public Services Industry in the UK*. Department for Business, Enterprise and Regulatory Reform. Retrieved from <http://www.bis.gov.uk/files/file46938.pdf>
- Palmieri. (2012). *GDP and beyond / complementary indicators* (No. CESE 814/2012 - ECO/301). European Commission, European Economic and Social Committee. Retrieved from <http://www.eesc.europa.eu/?i=portal.en.eco-opinions.15671>
- Parker, D. (Ed.). (1998). *Privatization in the European Union: Theory and Policy Perspectives*. Routledge.
- Parker, D. (2012). *The Official History of Privatisation, Vol. II: Popular Capitalism, 1987-97: 2*. Routledge.
- Patnaik, P. (2009). *The Value of Money* (First Edition.). Columbia University Press.
- Piketty, T. (2011). On the Long-Run Evolution of Inheritance: France 1820–2050. *The Quarterly Journal of Economics*, 126(3), 1071–1131. doi:10.1093/qje/qjr020
- Porter, T. M. (1996). *Trust in Numbers*. Princeton University Press.
- Riddell, T. (1988). The Political Economy of Military Spending. In *The Imperiled Economy, Book II: Through the Safety Net* (pp. 227–238). Monthly Review Pr.
- Roantree, B., & Browne, J. (2012). *A survey of the UK tax system*. Retrieved from <http://www.ifs.org.uk/bns/bn09.pdf>
- Rosdolsky, R. (1977). *Making of Marx's "Capital."* (P. Burgess, Trans.). Pluto Press.
- Schreyer, P. (2010). *Towards Measuring the Volume Output of Education and Health Services: A Handbook* (No. 2010/02). OECD Publishing. Retrieved from <http://dx.doi.org/10.1787/5kmd34g1zk9x-en>
- Shaikh, A. (2003). Who Pays for the "Welfare" in the Welfare State? A Multicountry Study. *Social Research*, 70(2), 531–550.
- Shaikh, A. M., & Tonak, E. A. (1996). *Measuring the Wealth of Nations: The Political Economy of National Accounts* (New Ed.). Cambridge University Press.
- Shaikh, A., & Tonak, E. A. (2001). The Rise and Fall of US Welfare State. In *Political Economy and Contemporary Capitalism: Radical Perspectives on Economic Theory and Policy* (pp. 247–256). M.E. Sharpe.
- Stanton, E. (2006). *Accounting for Inequality: A Proposed Revision of the Human Development Index* (No. 119) (p. 58). Political Economy Research Institute (PERI), University of Massachusetts Amherst.
- Studenski, P. (1958). *The Income Of Nations* (1st edition.). New York University Press.
- Thompson, E. P. (1963). *The Making of the English Working Class*. IICA.
- Vanoli, A. (2005). *A History of National Accounting*. IOS Press,US.
- Vanoli, André. (2006). Accounting for military activities in peacetime and wartime: Is war a process of economic. Presented at the 29th General Conference of The International Association for Research in Income and Wealth. Retrieved from <http://www.iariw.org/papers/2006/vanoli.pdf>
- Varoufakis, Y., Halevi, J., & Theocarakis, N. J. (2011). *Modern Political Economics: Making Sense of the Post-2008 World* (1st ed.). Routledge.
- Vogel, L. (2000). Domestic Labor Revisited. *Science & Society*, 64(2), 151–170.
- Waring, M. (1999). *Counting for Nothing: What Men Value and What Women are Worth* (2nd Revised edition.). University of Toronto Press.
- Weeks, J. (2011). Un-/Re-Productive Maternal Labor: Marxist Feminism and Chapter Fifteen of Marx's Capital. *Rethinking Marxism*, 23(1), 31–40. doi:10.1080/08935696.2011.536327
- Wilks, S. (2013). *The Political Power of the Business Corporation*. Edward Elgar Publishing Ltd.
- Wilson, E. (1977). *Women and the Welfare State* (1st ed.). Routledge.
- Wuttke, J. (2008). *OECD/PISA. A Critical Online Bibliography*. Retrieved from <http://www.messen-und-deuten.de/pisa/biblio.htm>
- Yonay, Y. P. (1998). *The Struggle over the Soul of Economics*. Princeton University Press.

