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# Investigating the Greek Unemployment from a Classical Perspective

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***Abstract:*** This paper addresses the issue of unemployment in Greek economy from a Marxist perspective. Specifically, we focus on analysing the structure of the Greek labour market with respect to the results of the memoranda and their relation to the current phase of capital accumulation. Rejecting the orthodox approaches to measuring and analysing unemployment, we first turn our focus to three indicators that are proposed by the BLS, calculating them in the case of the Greek labour market. Then, the three categories of stagnant, conjectural and latent reserve army are presented and respective unemployment rates are calculated for the Greek economy. Our conclusion is that the Marxian categories, not only capture the real dimension and size of the labour market, but they also contain information about changes in the labour force, that are not easily considered through the official indices.

***Keywords:*** Stagnant Unemployment, Conjectural Unemployment, Latent Unemployment, Reserve Army of Labour

***JEL classification:*** E24, J21, J64, J82, P16

## INTRODUCTION

In the majority of modern textbooks of introductory economics, a frequently used term is that of full employment of the factors of production, in short of capital and labour. Reality though is in a sharp contrast to these theories. No full employment of labour has been recorder in any economy that functions under the capitalist mode of production. This is highlighted *inter alia* by Shaikh (2016, ch. 14), Tsoulfidis and Tsaliki (2019, chs. 2 and 8), who mention that the full capacity output is that of full employment of capital rather than of labour. The foundation to this argument is outlaid by Marx in his analysis of unemployment; according to Marx (1977, ch. 25),

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unemployment is a structural and inherent feature of the capitalist system, an outcome of capitalist competition and the endogenous need of the system to grow. In his own words,

> it is capitalistic accumulation itself that constantly produces, and produces in the direct ratio of its own energy and extent, a relatively redundant population of labourers, i.e., a population of greater extent than suffices for the average needs of the self-expansion of capital, and therefore a surplus population. […] The labouring population therefore produces, along with the accumulation of capital produced by it, the means by which it itself is made relatively superfluous, is turned into a relative surplus population; and it does this to an always increasing extent. (Marx 1977: p. 443)

Hence, this surplus population is a direct byproduct of capitalist accumulation and constitutes a special law of the specific mode of production. Marx argues that its ever-presence is essential to the system and proves that by tracking the fluctuations of this reserve army of labour in the course of the accumulation cycle:

> The course characteristic of modern industry, viz., a decennial cycle (interrupted by smaller oscillations), of periods of average activity, production at high pressure, crisis and stagnation, depends on the constant formation, the greater or less absorption, and the re-formation of the industrial reserve army or surplus population. In their turn, the varying phases of the industrial cycle recruit the surplus population, and become one of the most energetic agents of its reproduction. (Marx 1977: p. 444)

By contrast, neoclassical theory treats unemployment as a temporary disequilibrium phenomenon resulting from the various obstacles to the operation of competition or external shocks. Even the most realist among them, who accept unemployment as inherent to the system, still consider the presence of unemployment a problem of reality rather than one of their models and perception, hence they do not discard their methods of analysis. Rather, they utilize entirely metaphysical tools and suggest a number of rigidities and obstacles in the labour market – in the form of the minimum wage, trade unionism, *etc*.– that cause a divergence from equilibrium and the emergence of unemployment. A cause of these imperfections is the inability of the wage to adapt at the appropriate levels, so that full employment can be reached (Smith, 1994). In a similar manner, the Keynesian tradition perceives unemployment as inherent, but due to the failure of market to generate sufficient effective demand (Gilpatrick, 1966; Summers, 1988; De Vroey, 2004).[1] Generally, and in spite of several attempts

to deal with disequilibrium (Richiardi, 2006), most mainstream schools of economic thought theorize the presence of unemployment as a short run disequilibrium phenomenon, one to be explained mainly as an aberration from normality.

A very good example of the neoclassical failure to perceive and cope with unemployment, both in theory and in policy, is that of the Greek economy. In the recent years (2008-2020), as the economic crisis stroke, unemployment increased dramatically reaching the record rate of 27.46% at 2013, while it was merely a 7.75% at 2008. Interestingly, these rates are far from realizing the real problem, given that they outshine all the actual levels of unemployment and under-employment, the dynamics of the labour market and the structure of the reserve labour army. As a response to these phenomenal events, policies dealing with unemployment have been proposed, based on the neoclassical approach and attempting to damp any – so called – frictions of the labour market, so that the wage becomes flexible enough to absorb as many workers as possible. However, several works have doubted the proposed policies to increase the labour market flexibility, as the outcome was an increase in unemployment and under-employment, rather than a way to achieve the desired equilibrium (Rodgers, 2007; Bernal-Verdugo, *et al.*, 2012). Destefanis and Mastromatteo (2010) and Sturn (2011) demonstrated that the proposed 'panacea' of labour market deregulation by the OECD and IMF is case-depended and proved successful only in specific cases, while Vergeer and Kleinknecth (2014) argued that higher flexibility may be the cause of the slowdown in labour productivity. Most notably, Brancaccio, De Cristofaro and Giammetti (2020) showed that 21% of the relevant literature considers this OECD-IMF consensus ambiguous and 51% of it deems it mistaken; hence, the neoclassical theories on unemployment and the policies resulting from them are brought into question. According to Catrakilidis and Tsaliki (2008), Alexiou and Tsaliki (2009) and Gymnopoulos, Kyparissidis-Kokkinidis and Poulakis (2015), the analytical abilities of the neoclassical paradigm is at best insufficient, rendering the respective theories incapable to grasp the problem and the subsequent policies unable to resolve it; this is in complete agreement to the recent persistence of high unemployment rates during and after the introduction of these policies. It is evident that with these policies applied, the Greek labour market is continuously deregulated.

In this paper, we present the structure of unemployment in Greece following Marx's analytical tools and categories of the reserve army of labour. Employment is studied in its main forms (full-time, part-time and

shiftwork), stating that different forms of employment emerge as part of the deregulation, that mask unemployment but cannot resolve the overall problem. Interestingly, the "unofficial" rate of unemployment used by the Bureau of Labour Statistics (BLS) applied in the case of the Greek economy, encapsulates much better the reality of the labour market and matches to a certain extent the Marxian explanation. In this manner, we attempt a different explanation of the peculiar labour market dynamics during the economic crisis in Greece, one that counters official analyses, yet it is founded on an empirical approximation of Marx's categories of unemployment.

## MARX'S THEORY OF UNEMPLOYMENT

In his first volume of Capital, Marx (1977, ch. 25) conceptualized unemployment as an inherent feature of the capitalistic mode of production. In the latter, competition forces capitalists to continuously reinvest their profits, in order to expand. This is summarized in Marx's writings as follows: "The expansion by fits and starts of the scale of production […] is effected by the simple process that constantly sets free a part of the labourers; by methods which lessen the number of labourers employed in proportion to the increased production. The whole form of the movement of modern industry depends, therefore, upon the constant transformation of a part of the labouring population into unemployed or half-employed hands" (Marx, 1977: p. 444). Through this process, capitalists aim to continuously raise the productive power of labour and cheapen its means of reproduction, or, in modern terms, to raise the productivity of labour and lower the unit labour costs. Even though, at first glance, this perpetual process of accumulation seems to increase employment, since the increase of accumulated capital also means an increase of its variable component, namely the wage fund, this conclusion is deceptive.

In this process of accumulation, capital does not expand only in quantity; qualitative changes in its composition also take place, such as the mechanization of labour. In other words, the ratio of constant to variable capital increases (rise in the organic composition of capital). This happens as capitalists, seeking to further increase productivity, proceed with the mechanization of the production process, that is, the increase of fixed capital by introducing new technologies that substitute "living" for "dead" labour. In other words, machines replace manpower. In the meantime, the circulating capital also increases, since the process of production is accelerated and the demand for raw materials increases as well.

The result of all the above is the relative decrease of the variable part

of capital as a percentage of the total capital, which is expressed as an increase of unemployment (Marx, 1977, ch. 25). Furthermore, Marx relates the rise of unemployment to the increasing tendency of labour supply. This incremental trend of labour supply is due to two reasons. Firstly, from a historical standpoint, the production process absorbs more and more portions of the population leading to an intertemporal increase of the labour force participation rate and thus to an increase in the supply of labour. Secondly, due to the effects of competition, business that did not succeed in introducing new technologies and sufficiently mechanizing their production is removed; in this way, the previous owners of closing businesses are included in the labour force, thus contributing to its increase. The centralization of capital, being another result of competition, also leads to an increase in the labour supply. Furthermore, the reduced demand for labour, as a consequence of the aforementioned business closure and of the mechanization of production in the remaining businesses, leads to a decrease in wages which forces portions of the population, that previously did not belong to the labour force, to seek jobs in order to sustain their standard of living. These two last factors, according to Marx, outweigh the first one eventually resulting to the reality of the reserve army of labour during all phases of capitalism – growth, stagnation and recession.

The reserve labour army further affects the labour market. Its existence causes the wage squeeze for those who work during economic downturns and allows for the constant supply of cheap labour during economic upturns (Botwinick, 1993, chs. 3 and 4). The relation between the existing real wage and the minimum real wage is practically affected by unemployment. If the labour market is loose and unemployment is low, then the labour force is in a position to raise wages relative to productivity. On the other hand, if the labour market is tight and unemployment is high, the power of labour diminishes (Shaikh, 2016, ch. 14).

Contrary to the neoclassical school of thought, the unemployed men and women are not a result of imperfect information or labour market rigidities. The existence of the reserve army of labour in every phase of the capitalist mode of production indicates that unemployment is a built-in control mechanism of the normal operation of the capitalist accumulation process (Sweezy, 1942, ch. 5; Furth, Heertje and Van Der Veen, 1978; Fine, 1998; Tsaliki, 2008) and emerges as a result of the competition of capitalists compelled to accumulate (Marx, 1977).

Essentially, in Marx's analysis of capitalism, unemployment is ever-present. However, other heterodox approaches consider unemployment as

subjected to fiscal policies; *e.g.* Okun's law, that is accepted by many heterodox economists, considers unemployment an effect of gaps between actual and potential output.[2] Hence, the application of Keynesian (anti-cyclical) policies that would attempt to bridge this gap, may support labour and strive for full employment. Although this may be true in the short-run, capital accumulation in the long-run increases labour productivity and deems labour redundant, hence unemployment is bound to rise again.

## CLASSIFYING UNEMPLOYMENT ACCORDING TO MARX

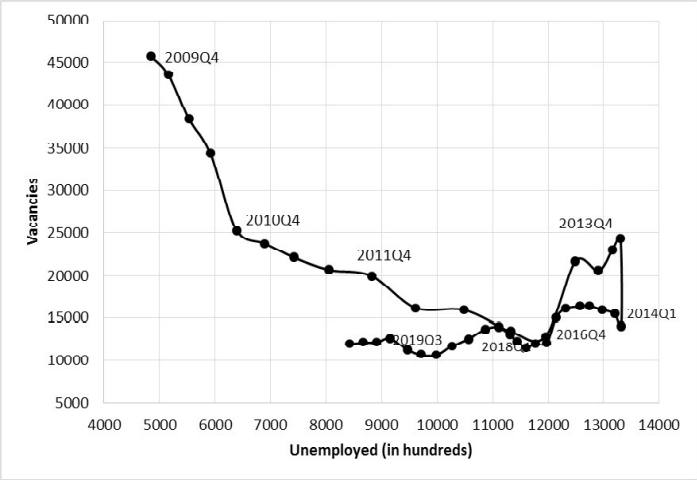
In mainstream approaches to economic theory, unemployment is classified with respect to its cause, with the latter being identified with some inefficiency of the labour market, some imperfection that drives it – temporarily– away from equilibrium. It is commonplace in the neoclassical approach, that the labour market is competitive and self-clearing, hence anyone looking for a job may find one by accepting the market-determined wage. As a result, unemployment is not expected, so long as the markets are free to attain their equilibria.

Considering the spatial dimension of an economy and the imperfect information spread, unemployment may arise due to unemployed being unaware of current vacant job positions; this class of unemployment is called frictional and is interpreted as short-term (Reder, 1969). According to Blanchard and Diamond (1989), the imbalance caused in the labour market is due to innovations outdating the old technology and respective labour skills. In this case, unemployment may rise in spite of the economic upswing and the vacant job positions, because of the unemployed incapability to fill these high-skill vacancies; this class of unemployment is labeled structural and may be persisting (Standing, 1983; Gilpatrick, 1996; Diamond, 2013). Furthermore, a drop in aggregate demand, caused by an economic recession, is reflected on a drop of economic activity and hence of demand for labour; unemployment that is caused as a result to this downturn is termed cyclical or inefficient-demand unemployment and tracks the phases of the economic cycle (Summers, 1988; De Vroey 2004; Diamond, 2013).[3] Finally, the natural rate of unemployment has also been proposed as the equilibrium rate of unemployment, in which no involuntary forces act (Friedman 1968), inflation does not accelerate (Modigliani and Papademos, 1975) and capacity utilization is at a normal rate (McElhattan, 1978).[4]

A fundamental element of this theoretical stream is the relation of unemployment and job vacancies, which is depicted in the Beveridge curve; this curve for the Greek economy from 2009:4 till 2019:4 is presented in

Figure 1. According to Blanchard and Diamond (1989), so long as the unemployed equal the vacancies, the economy is at a normal reproduction level, where only frictional unemployment is present; if the unemployed increase (a move to the bottom-right in Figure 1), then we are in an economic downswing and cyclical unemployment dominates, while a decrease of vacancies (a move to the top-left in Figure 1) indicates an economic upswing and a withdrawal of frictional unemployment; lastly, an increase in both vacancies and unemployed (a shift to the top-right in Figure 1) is an outcome of technological development and marks an increase of structural unemployment. The case for Greece, depicted in Figure 1, is that vacancies became significantly less than the unemployed after the beginning of the crisis, proving that cyclical unemployment dominated the labour market for the last decade, while little hope for a recovery is visible, due to lack of either effective demand rise or technological advances. This persistence of unemployment brings forth the question of transformation of the cyclical to structural unemployment, after the application of the memoranda policies.

**Figure 1: The Beveridge Curve for the Greek economy, 2009:4 – 2019:4.**




Marx proposed a totally different classification of unemployment, based on his completely different conceptualization of the capitalist economy. He is not interested on the specific causes of unemployment of each person, since he claims that capital accumulation is the general cause of unemployment; he is rather interested on social forms of unemployment as a state of being for the labourers. In this manner, we can talk about stagnant unemployment, the portion of unemployment that includes the irregularly

unemployed; in this category we can include the long-term unemployed, as well as those who are under-employed or at shiftwork (irregular hours, piecework, *etc.*), who are generally considered as employed:

> The [first] category of the relative surplus population, the stagnant, forms a part of the active labour army, but with extremely irregular employment. Hence it furnishes to capital an inexhaustible reservoir of disposable labour power. Its conditions of life sink below the average normal level of the working class; this makes it at once the broad basis of special branches of capitalist exploitation. It is characterised by maximum of working-time, and minimum of wages. We have learnt to know its chief form under the rubric of "domestic industry." It recruits itself constantly from the supernumerary forces of modern industry and agriculture, and specially from those decaying branches of industry where handicraft is yielding to manufacture, manufacture to machinery. Its extent grows, as with the extent and energy of accumulation, the creation of a surplus population advances. But it forms at the same time a self-reproducing and self-perpetuating element of the working class, taking a proportionally greater part in the general increase of that class than the other elements. (Marx, 1977: p. 450)

Furthermore, there is conjectural unemployment also known as the floating reserve army of labour, which includes the periodically unemployed.

> In the automatic factories, as in all the great workshops, where machinery enters as a factor, or where only the modern division of labour is carried out, large numbers of boys are employed up to the age of maturity. When this term is once reached, only a very small number continue to find employment in the same branches of industry, whilst the majority are regularly discharged. This majority forms an element of the floating surplus population, growing with the extension of those branches of industry. Part of them emigrates, following in fact capital that has emigrated. One consequence is that the female population grows more rapidly than the male, teste England. That the natural increase of the number of labourers does not satisfy the requirements of the accumulation of capital, and yet all the time is in excess of them, is a contradiction inherent to the movement of capital itself. It wants larger numbers of youthful labourers, a smaller number of adults. The contradiction is not more glaring than that other one that there is a complaint of the want of hands, while at the same time many thousands are out of work, because the division of labour chains them to a particular branch of industry. (Marx, 1977: p. 449)

In our days, as elements the floating reserve army of labour we can consider the short-term unemployed, those that belong to the previously discussed friction unemployment, the workers of seasonal jobs and those that work with fixed-time and open-ended contracts. In these we can also

include uninsured workers because of the unstable and precarious nature of their jobs.

A distinctive category is that of latent unemployment, which includes the part of the population that is marginally attached to the reserve army of labour. For Marx, this category included those parts of the population which were absorbed totally to the capitalist production and continued to survive by producing with pre-capitalist methods and organization. In Marx's own words,

> [a]s soon as capitalist production takes possession of agriculture, and in proportion to the extent to which it does so, the demand for an agricultural labouring population falls absolutely, while the accumulation of the capital employed in agriculture advances, without this repulsion being, as in non-agricultural industries, compensated by a greater attraction. Part of the agricultural population is therefore constantly on the point of passing over into an urban or manufacturing proletariat, and on the look-out for circumstances favourable to this transformation. (Manufacture is used here in the sense of all non-agricultural industries.) This source of relative surplus population is thus constantly flowing. But the constant flow towards the towns pre-supposes, in the country itself, a constant latent surplus population, the extent of which becomes evident only when its channels of outlet open to exceptional width. (Marx, 1977: p. 449)

A very good example in Marx's time would be the small land-owners that were not yet integrated into the capitalist mode of production, but rather strived in its periphery. In our days, we can still consider as main component of latent unemployment those who do not search for jobs, mostly because they are students, because of their compulsory military or community service or due to housework being their main occupation. We could also add the newcomers in the labour market, namely those that have not worked or searched jobs in the past but are currently forced to do it.

Finally, Marx refers to two additional categories: pauperdom and lumpen-proletariat defined as

> *[*T*]*he lowest sediment of the relative surplus population *[*which*]* dwells in the sphere of pauperism. Exclusive of vagabonds, criminals, prostitutes, in a word, the "dangerous" classes, this layer of society consists of three categories. First, those able to work. *[…]* Second, orphans and pauper children. These are candidates for the industrial reserve army, and are, in times of great prosperity […]. Third, the demoralised and ragged, and those unable to work, chiefly people who succumb to their incapacity for adaptation, due to the division of labour; people who have passed the normal age of the labourer; the victims of industry, whose number increases with the increase of dangerous machinery, of mines, chemical works, &c.,

the mutilated, the sickly, the widows, etc. *(Marx, 1977: p. 450)*

We will not deal with these categories, on the one hand due to limited data, on the other hand due to their small impact in relation to the true problem of unemployment and capitalist growth.

## ALTERNATIVE APPROACH TO MEASURING UNEMPLOYMENT: A CASE STUDY OF GREECE

According to the European and the Hellenic Statistical Authorities, someone is considered employed if and only if he has been working – or should have been working according to some contract – for a salary at least for an hour during the reference week; on the other hand, someone is considered an unemployed if he has not worked according to some contract and for a salary, not even for an hour during the reference week, and yet he was available to work at any time and was seeking for a job on a regular basis for the last four weeks.

In order to overcome any problems arising from the above strict definitions, the Bureau of Labour Statistics (BLS) of the United States established six different rates of unemployment, each of whom includes a greater percentage of population. Thus, aside from the official rate of unemployment, it provides five more rates, each of which incorporating a different version of the true or real unemployment rate. Using the BLS definitions, we can identify three different rates of unemployment for the case of Greece.

If $U_t$ denotes the number of unemployed and $E_t$ the number of employed in any given year the rate of unemployment is defined as:

$$u_{(3)t} = \frac{U_t}{E_t + U_t} \tag{6}$$

which BLS calls u-3 and is utilized as the official rate of unemployment. If, however, we denote by $N_t$ those who do not seek a job because they do not hope to find one, yet they are attached to the labour force, that is those who do not seek for a job but could do it at any time, we can re-calculate the rate of unemployment as:

$$u_{(5)t} = \frac{U_t + N_t}{E_t + U_t + N_t} \tag{7}$$

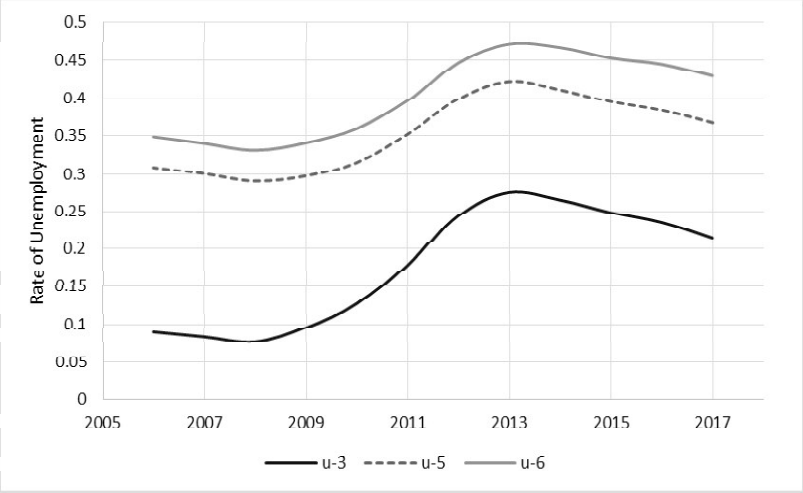
which is called u-5 and allows for a totally different perspective from that of u-3. Furthermore, if we denote with $PE_t$ the number of the unwillingly part-time employed, then we can define another more comprehensive and therefore more accurate measure of the true unemployment rate as:

$$u_{(6)t} = \frac{PE_t + U_t + N_t}{E_t + U_t + N_t} \tag{8}$$

which the BLS denotes it by u-6. The qualitative and quantitative differences of the three rates are obvious.

Using these definitions and the corresponding data provided by the Hellenic Statistical Authority (ELSTAT), we can calculate all three unemployment rates for the Greek Economy. Figure 2 presents these rates for the period 2006-2017.

**Figure 2: The u-3, u-5 and u-6 unemployment rates for the Greek economy, 2006-2017.**




A cursory consideration of Figure 2 reveals four salient features. First, all three rates seem to follow a common, almost parallel trajectory. Second, there is a notable difference between the official rate and the two alternative ones; namely, during 2006-2010, the first one is less than one third of the other two, while in the later period 2010-2017, u-3 is almost half of u-6. This wide difference is the immediate result of a large amount of economically non-active population in Greece, a problem that persists over the years; another possible explanation could be the presence of many uninsured employees in the Greek economy. Such employees are employed illegally and are therefore not counted as employees by the official statistical authorities. Third, since 2009, we observe that the u-3 rate of unemployment increases faster than the other two. Hence, one can identify the impact of the economic crisis because of the loss of jobs for many, especially the

young population, while at the same time a portion of economically non-active population begun their search for a job on a regular basis. Finally, since 2012 we observe a slight increase of u-6 relative to u-5. This increase may be attributed to the change of status of employees from full-time to part-time jobs or one may speculate that some of them were fired and re-hired as part-time employees.

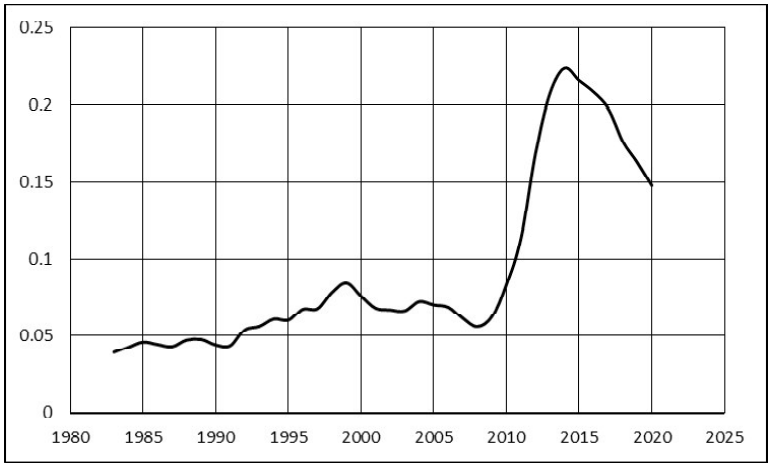
One short comment before moving to Marx's approach on the classification of unemployment, is the similarity of the latter to the definitions of unemployment used by the Bureau of Labour Statistics (BLS); according to Shin (2016), this allows for a first approximation of the magnitude of the reserve army of labour, that is usually obscured by more official statistics. It is therefore particularly interesting that the BLS understands these social issues in depth and even more accurately than the dominant models of neoclassical thought.

## THE MARXIAN CLASSIFICATION OF GREEK UNEMPLOYMENT

Marx's classification of unemployment can be operationalized by means of data provided by the ELSTAT from 1983 to 2020, which contain shot-run (below 12 months) and long-run (over 12 months) unemployed, under-employed, partially employed, as well as economically non-active parts of the population (such as household keepers, students, compulsory military or community service attendants, *etc*. – of course, excluding the retired and the children under 15 years). Combining these fragments of the economically active and inactive population of Greece, we may reach a good approximation of Marx's three main categories of unemployment, namely the stagnant, the conjectural and the latent.

Firstly, we consider stagnant unemployment, that is long-term unemployment augmented by under-employment. According to ELSTAT, someone is considered a long-term unemployed if he is over 25 years old and has been continuously unemployed for over 12 months, or is below 25 years old and has been continuously unemployed for over 6 months, while he is considered under-employed if engaged in voluntary part-time employment, even though he sought full-time employment. Adding these, we may derive an approximation of stagnant unemployment, and dividing by the active and non-active population, we reach a rate of stagnant unemployment, which is presented in Figure 3.

**Figure 3: Rate of Stagnant Unemployment in the Greek economy, 1983-2020.**



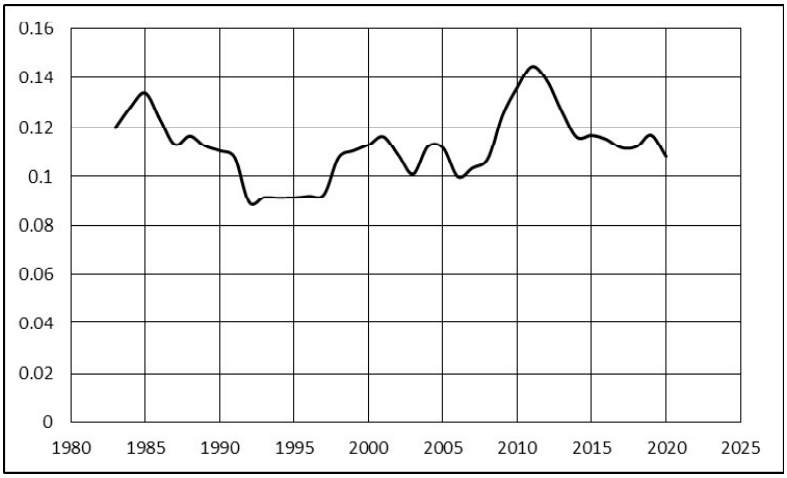

We observe that this rate almost reaches the actual unemployment rate, although it contains only the long-run and the under-unemployed; furthermore, it tracks closely the evolution of the official unemployment, which indicates a constant level of long-term unemployed and under-employed in the Greek Economy after the 1980s. Of course, we observe that the number of long-term unemployed and under-employed is rising after 2009; this may be attributed both to the downswing of the economic cycle (increasing the long-term unemployed) and to the change of status of many full-time employment contracts to part-time or to shiftwork ones (increasing the under-employed).[5] This increase of involuntary part-time employment has been observed since the '80s (*e.g.* Leppel and Clain, 1988) and received a wider attention recently, mainly due to the 2008 economic crisis (Valletta and List, 2015; Glauber, 2017); interestingly, this effect was recently proved to be of cyclical nature (Borowczyk-Martins and Lalé, 2020). The rise of temporary employment and shiftwork has also been traced (*e.g.* ter Weel, 2018).

Secondly, in Figure 4 below we display the rate of conjectural unemployment, which is derived by the addition to the short-term unemployed of all those that work with a temporary employment contract and the uninsured employed, and then dividing with the active and non-active population.

What we observe is that short-term unemployment is a relatively small percentage of the total population. This ratio remains almost constant (around 12% of the active population), denoting a consecutive flow to and from that

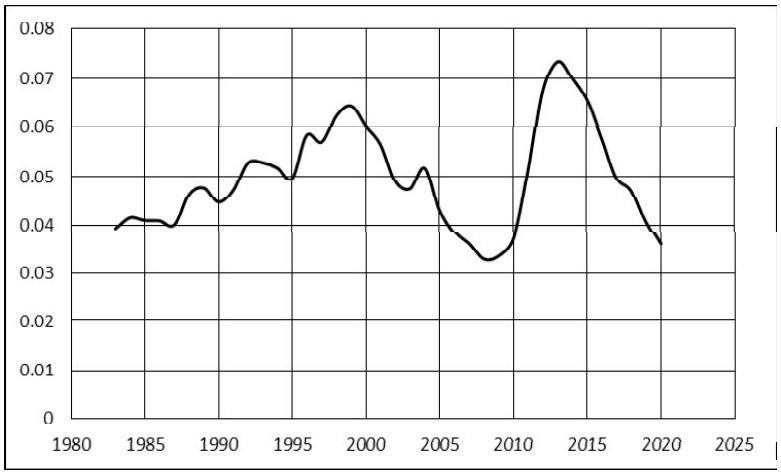
condition. In fact, during the peak of the crisis, 2012-2013, as unemployment increases rapidly, its short-term component reaches hardly 15%. However, the conjectural unemployment remained over the official unemployment rates during the 1980s and 1990s, reaching over the half of it after 2010. What is intriguing is that short-term unemployment is a persistent structural problem for the Greek economy, that varies between 200,000 and 400,000 persons. This probably happens since there is a strong seasonality in employment in Greece. A typical example of the above is employment in the tourism industry during the summer months.

**Figure 4: Rate of Conjectural Unemployment in the Greek economy, 1983-2020.**




Finally, latent unemployment is also presented in Figure 5. It includes only the economically non-active and the newcomers in the labour market, although theory suggests that it should include those employed and self-employed in the agricultural sector, workshops and small commerce that still function under pre-capitalist or very outdated techniques of production. However, this would be a rather unorthodox choice, since the agricultural sector, the workshops and the small commerce in Greece –as in most capitalist countries– cannot be considered as pre-capitalist; the majority of these employees and self-employees function under capitalist intra- and inter-industry competition, hence they should be considered dependent of the dominant mode of production.[6] Consequently, we shall consider only the economically non-active and the newcomers.

**Figure 5: Rate of Latent Unemployment in the Greek economy, 1983-2020.**




In Figure 5 we observe that latent unemployment has an upwards trend in the period 1980 through 2000 (from 4% to 6.5%), after which it shows a slight decrease till 2008 (reaching 3.5%). This decrease could be attributed to the introduction of euro as a currency in the economy, which raised the cost of living in Greece.[7] We could hypothesize that an increase of the cost of living affected latent unemployment, since more members of a typical household would need to work, in order to keep the same consumption level as before – the so-called 'added worker effect'. From 2009 to 2013, latent unemployment more than doubles in size and in 2020 returns to the same levels as in 2008. Similarly, this could be attributed to the so-called 'discouraged worker effect'; as long-term unemployed are discouraged they abandon the search for job and are removed to the economically inactive portion of the population, marginally attached to the labour force.[8]

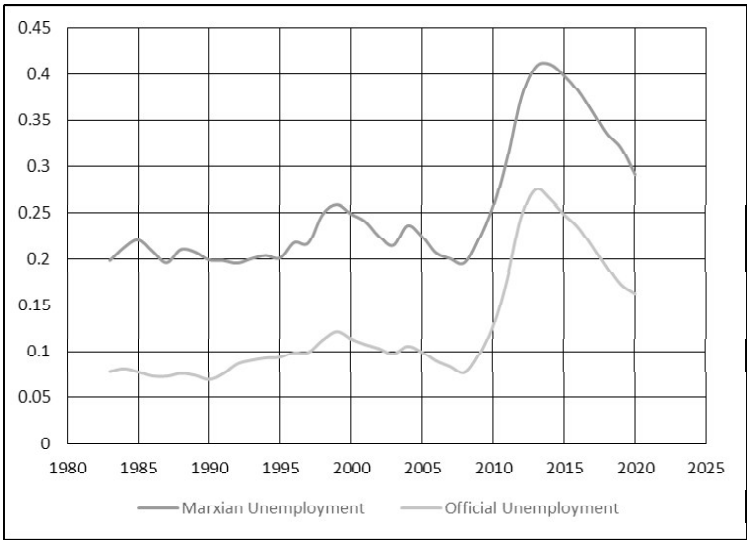
**Table 1: Full-time Employment, Part-time Employment and Shiftwork as shares of total employment in the Greek economy, 2010-2019.**

| Year | Full-time Employment | Part-time Employment | Shiftwork |
|---|---|---|---|
| 2010 | 66.90% | 26.10% | 6.90% |
| 2011 | 54.99% | 32.44% | 12.57% |
| 2012 | 58.75% | 25.42% | 15.83% |
| 2013 | 53.85% | 37.13% | 9.02% |
| 2014 | 49.50% | 36.16% | 14.34% |
| 2015 | 46.95% | 37.44% | 1.56% |
| 2016 | 45.26% | 40.10% | 1.46% |
| 2017 | 45.13% | 40.90% | 13.97% |
| 2018 | 45.66% | 41.60% | 12.74% |
| 2019 | 45.12% | 42.52% | 12.35% |

It is noteworthy that the 'discouraged worker effect' (when discouraged unemployed exit the labour market) and the 'added worker effect' (when economically inactive persons enter the labour market) were discussed as ways to explain the ups-and-downs of unemployment during the 2008 crisis (Armağan and Rengin 2019), with some research focusing on Greece (Karamessini 2012; Ioannides 2014; Karamessini and Koutentakis 2014). It is our firm belief that these two effects can be more easily traced by means of positive and negative changes in the Marxian category of latent unemployment, respectively.[9]

Last but not least, we should consider the structure of unemployment via these Marxian categories. In Figure 6, we compare the Marxian rate of unemployment, which is the sum of the three rates we calculated, with the official rate of unemployment. It is apparent that the two rates follow similar tendencies. However, the Marxian rate of unemployment is more than double in the period 1983-2008 and almost double in the period 2009-2020; hence, the two rates turns closer during the downswing of the economic cycle. Also, the changes in the Marxian rate of unemployment appear sharper, which is indicative of its ability to measure invisible motions in the labour market.

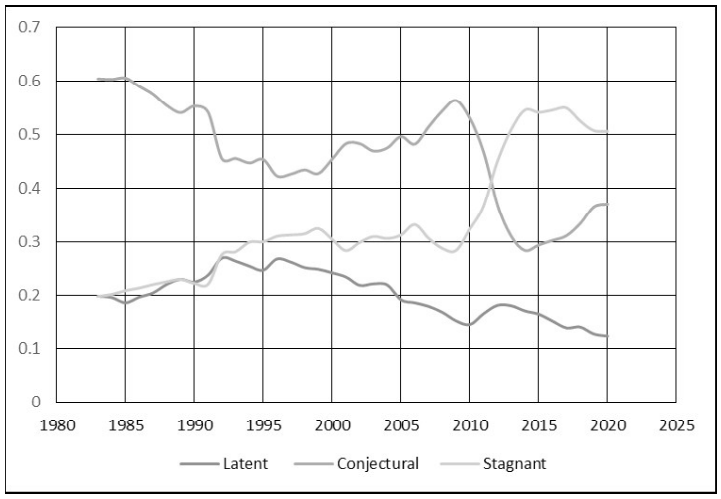
**Figure 6: Official and Marxian rates of unemployment in the Greek economy, 1983-2020.**




Following, we can observe the percentage of each category in the total Marxian rate of unemployment in Figure 7. What becomes apparent is that

stagnant and conjectural unemployment move in the opposite direction (the former rising and the latter dropping) and interchange at 2012 (the former turning higher than the latter); this indicates a transition of the Greek labour market from short- to long-term unemployment and from full to partial employment – a transition that initiated during the '90s and reached its climax after the 2008 crisis. At the same time, the latent unemployment is the smaller portion and decreases relatively from 1991 till 2020.

**Figure 7: The Marxian categories of unemployment in the Greek economy as percentages of the total unemployment, 1983-2020.**




## CONCLUSIONS

The crisis that hit Greece particularly hard took place in the wider context of the global Great Recession of 2007-09. According to classical political economy, the global as well as the Greek crisis have their deepest "roots" in declining profitability (Tsoulfidis and Tsaliki 2014). During the long recession, investments in the Greek economy performed extremely poorly. This makes perfect sense as the key determinant of investment performance is current profitability and future earnings expectations. The collapse of investment in turn, led to a reduction in output, underutilization of productive factors and therefore a dramatic increase in unemployment. In addition, unemployment in Greece has risen due to the economic policy implemented, especially in the midst of the crisis. The fiscal adjustment programs called for by the Greek governments, under the auspices of the EU, the ECB and the IMF, have exacerbated the recession and thus further reduced employment.

Given the arguments of Catrakilidis and Tsaliki (2008), Alexiou and Tsaliki (2009) and Gymnopoulos, Kyparissidis-Kokkinidis and Poulakis (2015), we have solid reasons to believe that neoclassical and neo-Keynesian explanations of unemployment are lacking theoretical foundations and empirical support, so as to be completely incapable of dealing with the problem. In that perspective, the neoliberal policies being followed, that are themselves derived from such theoretical trends, are deemed as incapable of resolving the problem. In fact, their purpose – in Greece, or other capitalist countries – is probably the opposite, to turn the balance in favour of the capitalist class, by deregulating and fragmentating the labour market, repressing syndicalism and labour rights, changing the terms and conditions of work (mainly from full to partial employment), decreasing the wage share and securing a high level of profitability, hence allowing for the system's normal reproduction. [10]

Attempting to explain the current situation of the labour market in Greece by means of Marxian political economy, we dealt with the data inability to depict Marxian categories. Thus, we proceeded by calculating our own observables. First, we calculated the unofficial rates of unemployment (u-5 and u-6) according to the BLS and had a first glance at the magnitude of the reserve labour army. Afterwards, we proposed a way to measure the three main components of the reserve army, namely the stagnant, the conjectural and the latent parts of it. What is highly indicating in the case of Greece, is that stagnant unemployment reaches over a million of people (both long-term unemployed and partially employed) during the crisis and until today; this denotes the main problem of the Greek economy and its course during the recession and the memoranda policies.

Given the specific features of the stagnant reserve army and the role it plays in capitalist development, its tripling during the crisis and its maintenance in this "unnaturally" high level indicates the specific character of the current recession and especially of the policies followed. It indicates the strong survival mechanisms of the capitalist mode of production, wherein the potential seeds to overcome the current recession are already planted. Yet, the overall situation for the Greek economy has not changed; on the contrary, we are observing the cyclical unemployment (due to the lack of demand) being transformed to structural (due to skills insufficiency), indicating a shift of Greece's productive basis. In this view, high levels of stagnant unemployment and the afore-mentioned shift from cyclical to structural unemployment denote a worsening of worker's bargaining terms, which *ipso facto* paves the way for a higher rate of exploitation. and thus,

promotes the eventuality of a virtuous cycle of capital accumulation. Of course, this eventuality transforms into a fact once a set of other, equally pivotal conditions are met – among which, we could probably call the technological and institutional basis of the Greek economy (and their effect on the organic composition of capital), the fiscal and monetary policies applied, and the overall state of the European and the world economy. Given Marx's theory of capital accumulation, we would require all these to discuss whether the Greek economy could escape the vicious cycle of a persistent recession. At the macroeconomic level, therefore, the economic hardship of Greece has not been overcome once and for all. The positive growth rates of the period 2017-2019 were anemic, reflecting the weaknesses in profitability. What we can argue is that the relaxation time for the Greek economy to achieve a 'normal' rate of unemployment *à la* Shaikh, hence to acquire a normal rate of profit, is rather large; it is our view that the structural features of Greek capitalism along with the persistence of the current recession are not in favour of a quick recovery. Hence, if a new (global) depression occurs, this transformation will be postponed later into the future.

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***Notes***

1. We should mention the different trends of the Keynesian tradition have a different perception on unemployment and the mechanism by which it is triggered. Keynes and the Post-Keynesians emphasized on the presence of involuntary unemployment that emerges if the 'free hand of the market' acts unbounded. Keynesians following the neoclassical synthesis and Neo-Keynesians emphasize on cyclical unemployment that emerges whenever there is a lack of effective demand. Finally, New Keynesians consider the case of a 'natural' rate of unemployment that does not accelerate inflation. All of these aspects share the idea that unemployment is not a mere divergence from equilibrium, but may be inherent to the capitalist economy.
2. Yet, we should note that Okun's law relates the output gap with the divergence of the unemployment rate from its 'normal' level, hence it accepts the existence of involuntary unemployment in equilibrium.
3. Another impact we need to consider is the case of diverging demand for labour throughout the year, depending on different economic activities (farming,

tourism, etc.), leading to seasonal unemployment.

4. It is worth mentioning that even orthodox economists have argued against a 'natural' rate of unemployment and pointed the theoretical and empirical weaknesses related to it (Espinosa-Vega and Russell, 1997).
5. Interestingly, this increase of part-time over full-time employment is well-observed in many OECD countries, such as Canada, Germany, Italy, Japan and the United Kingdom (https://data.oecd.org/emp/part-time-employment-rate.htm). The OECD median for part-time employment was 12.5% of the total employment back in 1976 and rose to 16.7% by 2020. Similarly, a rise in temporary employment has been observed in several OECD countries during the last decades, like France, Germany, Italy and Japan (https://data.oecd.org/emp/temporary-employment.htm). The OECD median for temporary employment rose from 9.2% of the total employment in 1980 to 11.4% in 2020.
6. One could always consider the remaining self-employees in traditional professions as pre-capitalist ones, but they are too few and data for them are hard to find.
7. One reason for this raise of the cost of living is the fact that Greece suffered from high inflation before the adoption of euro, a situation that continued afterwards (Gregoriou et al. 2011; Lopez and Papell 2012). Another reason is that the cost of living was highly dependent on imported goods (food, clothing, medicine, etc.), that became more expensive after the adoption of the 'stronger' euro.
8. Interestingly, from 2010 to 2013, most of the rise in latent unemployment is due to an increase in people studying.
9. We are grateful to one of the anonymous referees for bringing this connection to our attention.
10. It is indeed of some importance – as it was brought to our attention by an anonymous referee – to deal with the question of the objective goals of the memoranda policies and whether they were achieved. The usual interpretation is that their objective goal was to correct the structural anomalies of the Greek economy, so that higher profitability would be ensured and investment would be viable again. However, two important points should be stressed. Firstly, the memoranda policies were initially based on mistaken assumptions for the functions of the Greek economy (with the income multipliers being the best example) with catastrophic outcomes. Secondly, as Donald Tusk was commenting, the goal of many adjustments in the Greek legislation and practices was to restructure the labour market and bring it closer to the European standards. In view of these, we may indeed consider that the goals set were successful as much as the Greek labour market was indeed restructured, deregulated and fragmented, however they were deeply unsuccessful on capturing the actual causes of low profitability and lack of investments in Greece.

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