Inequality and the phases of capitalism

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Abstract. We live in a capitalist world characterized by economic inequality. Inequality is a real curse, but it does not have to always increase. In different phases of capitalism, it may be increasing, constant, or decreasing, depending on the dominant type of technical progress (capital-using, capital-neutral, or capital-saving), on the organizational capacity of the workers, on the competition from other countries with lower wages, and on the prevailing degree of democracy. But distribution faces an economic constraint: the expected profit rate must remain attractive to business entrepreneurs. From the mid-20th century we would expect technological progress to change from neutral to capital-saving, which would allow wages to increase at a faster rate than productivity. Indeed, this happened in the Golden Years of capitalism, but such progress stalled in the succeeding Neoliberal Years, dominated as they were by a class coalition of rentier capitalists and financiers.

Key words: capitalism, capital-saving technology, class coalition, development, economic equality.

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Inequality, both domestic and international, has existed ever since human societies were able to produce an economic surplus and evolved into "civilizations" or empires. Inequality has been a curse, because it weakens human solidarity, pitting men against men, women against women, as the strong or the clever oppress the weak or the backward in appropriating the economic surplus. In *The Spirit Level: Why Greater Equality makes Societies Stronger*, Wilkinson and Picket (2010: 19–21) relate an index of health and social problems in the OECD countries to two simple figures: (*a*) national income per head and (*b*) inequality. They demonstrate that whereas the correlation between the index and income per head is weak, that between the index and inequality is almost perfect; and they conclude that "there is a very strong tendency for the ill-health and social problems to occur less frequently in the more equal countries". No theory of justice, whether meritocratic or liberal, can justify such inequality. According to the meritocratic notion of justice, the ablest should be compensated the most. Nevertheless, in each society the poor are no less endowed with talents, or less hard-working, than the rich. In contrast, the liberal theory of justice, such as that of John Rawls (1971), justifies inequality provided that it is the price for some improvement in the standard of living of the worst-off members of society. Yet the huge differences in income and living standards among people and among countries are weakly justified by this principle. We cannot say either that the growth rates in rich countries, which are higher than those in developing countries (with the exception of some fast-growing Asian countries), are justified because they may benefit the worst-off countries, or that, within each country, the large bonuses received by financiers are justified by the modest increase in the income of the poor. Such reasoning is embodied in the classical liberal justification of capitalism, but it does not make capitalism any less unjust.

Inequality may assume many forms. Human beings are supposed to have equal rights to liberty, to respect, to their own culture, to vote and to be elected, and to material well-being; but in reality they do not have such equal rights. To each of these rights there is a corresponding inequality: inequality of liberty – although constitutions proclaim that all citizens are equal under the law, in practical terms they are not; inequality of respect – the poor are usually treated with less respect than the rich; political inequality – each citizen is entitled to one vote in democratic regimes, but their actual power to choose politicians or to influence policy varies widely; multicultural inequality – minority groups are supposed to have their cultures respected, but all societies impose some degree of integration.

According to Michael Walzer's (1984) theory of justice, we may admit inequalities within each "sphere of justice", because each sphere has a different principle of justice that is not necessarily based on straight equality. But there is a rule that should never be disregarded: no one is entitled to cross the borders of the spheres of justice. Nobody, for instance, should have more access to health care because she is richer, or more access to education because she is powerful. Yet in capitalist societies we observe that the rich usually and shamelessly cross the borders of the spheres of justice; because they are rich, they believe that are more entitled to power, or to social prestige, or to respect, or to education, or to divine grace, or even to health care – the social goods that define the other spheres of justice. This fact shows how crucial it is to reduce economic inequalities; not to eliminate them, but to limit their scope.

In this paper I discuss inequality using freely some Marxian tools to come to non-Marxian conclusions. I adopt a social democratic perspective, and I assume that progress or development is a possibility, which does not preclude periods in which society moves backwards, as it did during the Neoliberal Years of Capitalism. I first examine some data and relate inequality to the logic of capitalism. Second, I briefly discuss the role of politics or the state in promoting economic development and in reducing inequality, and I bear in mind that policymakers face an economic constraint. In the third section I discuss that fundamental economic constraint in a capitalist society (the existence of a reasonable or satisfactory rate of profit, and its relation to technical progress and with distribution), and I present a simple model relating technical progress to the profit rate and to distribution. In the fourth section I outline five phases of capitalist development differentiated by the dominant type of technical progress and distribution between profits and wages. In the fifth section, I argue that in the final phase, the Neoliberal Years, wages failed to increase as the model predicted because factors exogenous to the model intervened. In the sixth section I briefly extend the discussion to developing countries. In the conclusion I summarize the findings and briefly discuss weighted international inequality – inequality among countries.

The challenge facing social democratic parties

In discussing economic inequality we need to keep in the forefront of our minds the numbers of people that suffer from hunger (around 20 percent of the world's population) and the numbers who live on less than one dollar per day (around a billion). According to Branko Milanovic (2007: 108), inequality in 1998 as measured by the Gini coefficient was as high as 64.1. This information is relevant if we wish to reduce inequality, as are normative political theories that deal with injustice, sociological theories that tie inequality to capitalism or the class system, and economic theories, such as those I will present here, that explain inequality in capitalist societies. Socialist or critical theories of capitalism are especially relevant to tackling inequality. Yet, although I believe that it is essential to criticize inequality and the theories and ideologies that legitimize it, I doubt whether socialist and republican intellectuals,[1] however cogent their critiques, will make a great contribution to reducing it. Ideas are important in reducing social injustice, but more important is the political organization and struggle of the poor and the workers. The proletariat does not hold the key to the future, as Marx and Engels supposed, but I am persuaded that the socialist political parties, the left-wing associations, and the left-wing social movements that were unable to build an alternative economic system to capitalism have nevertheless contributed to making the world less unequal. If we take economic liberalism, socialism and developmentalism as ideologies, whereas liberalism justifies the present degree of inequality, *socialism* has contributed to reducing inequality among people within each country, and *developmentalism* – the ideology and national development strategy behind all industrial revolutions and catching-up processes – has contributed to the reduction of inequality among countries.[2]

We know that unfettered capitalism is an unjust mechanism for determining income distribution. The economic triumph of capitalism over the failed experiments to establish socialism (which degenerated into statism) derived originally from the fact that men and women are intrinsically unequal in talents and in cultural and economic heritage, coupled with the fact that capitalism *is not* troubled by such inequality. Yet this “original inequality” should not be understood in the light of the conservative tenet that societies should be unequal because human nature is unequal. Instead, we have to bear in mind, first, that original inequality includes traits that are socially created and sustained; and second, that actual inequalities are substantially greater than the inequality that has its origin in individual talents. As for capitalism’s acquiescence in inequality, this is an intrinsic characteristic of capitalist society. As Max Weber pointed out in discussing Calvinism and the Protestant Reformation, wealth was understood as a sign of divine grace. Equality is not a condition for the emergence of capitalism, whereas it is for the emergence of socialism in so far as socialism is defined as the common ownership of the means of production. Capitalism defeated real existing socialism, not because capitalism is the wonderful system advocated by liberal economists, but because markets duly regulated by the state proved to be more efficient than economic planning in coordinating the competitive sectors of large and complex national economies. Besides, the socialist project faced a major obstacle that was absent in capitalism: socialism was supposed to confront the original inequalities existing in society and to achieve a substantially less unequal distribution of wealth and income, while capitalism could happily live with rampant inequality. Socialist or statist countries never achieved economic equality, but they were substantially less unequal than capitalist countries with similar levels of income per capita. For instance, in the Soviet Union in 1990, just before its demise, the Gini coefficient was 2.81 (Alexeev 1993: 29), while in middle-income capitalist countries it was substantially higher.[3] Yet the Soviet Union was able to achieve this outcome only at the price of a state-controlled economy that proved inefficient and required an authoritarian political regime.

The immediate challenge to a social democratic party that wins elections is to reduce inequality while keeping the rate of profit attractive to capitalists – sufficient to motivate them to invest and the economy to grow. Socialist political parties soon cease to be revolutionary and become social democratic or reformist parties, because they have no real prospect of installing socialism. As Adam Przeworski (1986) argued forcefully, not only does the capitalist class retain a veto power in so far as it can suspend investment at any moment, but the socialist party is unable to persuade the workers that the expropriation of the bourgeoisie will represent a real benefit for them. As social democratic parties, they proved successful in so far as their policies made capitalism less unjust without demotivating business entrepreneurs from investing and innovating. In the case of successful developing countries – those that managed to realize their own capitalist revolution and industrialize – left-wing developmental class coalitions were able to reduce inequality in so far as they could supersede the colonial coalition of the local oligarchy of merchants, landowners, and rentier capitalists on the one hand, and foreign interests on the other. To achieve this they had to build a political coalition of public bureaucrats, organized labor and, necessarily, manufacturing businessmen.[4] This coalition was a necessary condition for fast growth; it had the power to transfer income from the oligarchy, but the fact that it included businessmen limited its ability to reduce inequality, which, in most cases, increased.

Politics, growth and progress

Capitalist societies are involved in a process of social construction aimed at economic development (the sustained increase in per capita income) and at development more broadly, or progress – the gradual achievement of the shared, historically defined political goals of modern societies: social order, individual freedom, material well-being, reasonable equality, and protection of the environment. Capitalist societies often betray their commitment to such developmental goals, as was the case with fascism. They don't attach equal importance to each goal, as we see in China in relation to individual freedom, or in the United States in relation protection of the environment and certain basic civil rights. Nevertheless, it is reasonable to affirm that modern societies aspire to achieve such political goals. Realizing them, particularly the creation of a less unjust society, depends on values – on the socialist belief that reasonable economic equality is not only a slogan but also something that civil society must fight for and that may achieve some progress. But it also depends on the political capacity of a developmental administration to recognize and cope with the economic constraints on reducing inequality and achieving economic growth. In other words, it depends on building a capable developmental state and on politics or statecraft. Ancient societies allowed no space for politics, with the classical exceptions of Athenian democracy and the Roman republic. But in modern societies, after the absolute state gave way to the liberal state and to the rule of law, politics became *possible* and indeed a reality. When the state acquired competence and became developmental and social-democratic, politics was turned into an instrument for building a better world, notwithstanding the powerful forces that fight to retain privilege. Politics is the practice of governing, it is the activity of reforming institutions and defining public policies, it is the art of persuasion and compromise to put together majorities. It is through political action that citizens organized as a civil society reform the state and change social life so as to make it less unequal. But politics is limited on the one hand by the interests of the conservatives, the rentier capitalists and the financiers, and by pressure groups and civil society organizations associated with the rich; and it is limited on the other hand by the economic and political constraints that policymakers face in capitalist societies.

Capitalism is a form of organized production and distribution determined by the requirements of profit. On the assumption that technical progress is neutral or, in other words, that the output–capital ratio is constant, reducing inequality requires that wages grow faster than the productivity of labor, which would lead to a fall in the rate of profit.[5] Yet, given the interest rate, economic growth depends on the expected profit rate. If the rate of profit does not achieve a reasonably and conventionally established satisfactory level, businessmen and business enterprises will not invest. It follows that growth will slow down, and wages will eventually fall rather than increasing faster than productivity, which is the basic condition for the reduction of inequality.

The alternative would be socialism, but historical experience has shown that this is not a realistic alternative even for the richest or most developed societies, which in principle are closer to socialism. The Scandinavian societies present the highest standards of equality in the world, but even there it is most improbable that the system of production will cease to be capitalist and become socialist in the near or even in the medium-term future. Yet these societies have shown that a less unjust form of capitalism is possible. Despite the inherent inequality of capitalism, since the Industrial Revolution economic development has become a reality; people fought for democracy and eventually obtained it and were empowered, and the liberal state turned into a social state.[6] The neoliberal years between 1979 and 2008 were an attempt to return to the 19th century by dismantling the welfare state, which eventually failed.

Critics will certainly argue that I am being optimistic, and that it is impossible to make capitalism less unjust. I respect social criticism, because self-satisfaction is always a threat to personal advancement as well as to social progress. Yet, since the capitalist revolution made the reinvestment of profits in production a condition for the survival of business enterprises, economic development has become *embedded* in the economic fabric. Despite the short-term conflicts between sustained economic growth and the other political objectives shared by modern societies (security, freedom, social justice and protection of the environment), and the periodic regressions such as occurred in the neoliberal years, there is little doubt that in the medium term these goals are correlated. Every society that completes its capitalist revolution or modernizes experiences progress or development, standards of living improve, and democracy is strengthened; but whenever the more advanced societies face major setbacks, such as the two world wars in the first half of the 20th century and during the neoliberal years, faith in progress wanes.

Three central questions must be posed in relation to inequality within the capitalist system. First, what structural economic constraints do nations face in reducing domestic inequality? Second, given such constraints, what level of freedom do they allow? Third, what can be done at the international level? This last question draws attention to the fact that inequality may increase or diminish both at the national level, among the inhabitants of a given country (who are not necessarily all citizens of it), and at the international level, among the population of the entire world. Within a nation-state there is one major institution – the state – that potentially acts as an instrument of the collective action of civil society or the nation, while at the international level there are institutions (international treaties, the United Nations) but no state. At the national level, civil society was separated from the state and eventually, in the context of democracy, was able to use the state as an instrument to reduce inequality, although only to a limited degree. At the international level, a global civil society is still being constructed and an international political system associated with the United Nations is emerging, but we are still far from setting up a global state.

The profit constraint, technical progress and distribution

The fundamental economic constraint on capitalist development is the profit rate. Usually, when economists discuss the structural constraints involved in income distribution, they base their models on a simple functional distinction between capitalists receiving profits and workers receiving wages. To focus only on wages and profits makes sense because it clarifies the relations between the two key actors in a capitalist society, namely, capitalists and workers; but as this approach either lumps the professional or techno-bureaucratic class with the workers or ignores it altogether, its purchase on reality is limited.

In his model of growth and distribution, Bresser-Pereira (1986, 2004) *inverts* the classical theory of distribution advanced by David Ricardo and Karl Marx. Instead of considering wages at the subsistence level as given and profits as the residuum, he takes the profit rate as given and the wage rate as the residuum. The classical economists' assumption in the model that the wage rate was constant proved to be historically wrong, whereas the assumption that the profit rate is given and constant in the long term is reasonable because the existing data confirm that the profit rate is relatively stable in the long run and that the wage rate grows with economic development.[7] The profit rate fluctuates widely over the business cycle but is constant in the long run because competition limits average profit rates. For that reason no economist argued that the profit rate tended to increase. On the other hand, the basic economic constraint in a capitalist economy is that the profit rate must be satisfactory or, to use Herbert Simon's (1957) expression, "satisficing", that is, sufficient to stimulate businessmen to invest. Thus, if we assume that economic growth is taking place as a consequence of capital accumulation and technical progress, the profit rate will be allowed to move below or above that satisfactory level in limited way and for only short periods. Competition that limits, and institutions that protect, the profit rate will make it fluctuate around the satisfactory level. Businessmen may seek to maximize profits, but they are satisfied and ready to invest if the expected profit rate is clearly higher than the market interest rate. Entrepreneurs aim at profits but they also struggle to expand their business enterprises, thus increasing their power. Their "animal spirits" (Keynes 1936) or their "need for achievement" (McClelland 1961) make them invest and innovate. Obviously the profit rate is not constant in the short or the medium term. Capitalist growth is cyclical, and the profit rate fluctuates with the short and the long cycle. However, it is reasonable to assert in relation to the past (the available data point in this direction), and to predict in relation to the future, that the profit rate is constant in the long run.

To understand the structural constraints on income distribution or the reduction of inequality, it is useful to use the concepts that Karl Marx adopted to formulate his thesis about the tendency of the rate of profit to fall, and to consider the historical variation of one key variable, namely the output–capital ratio or the productivity of capital. There is technical progress whenever labor productivity (which corresponds approximately to per capita income) is increasing. But, in terms of the productivity of capital, current technical progress may be capital-using, capital-neutral, or capital-saving, depending on the character of the output–capital ratio or the productivity of capital. If the output–capital ratio is decreasing, technical progress will be capital using or the productivity of capital will be falling; if it is constant, technical progress will be neutral; if the output–capital ratio is increasing, technical progress will be capital-saving or the productivity of capital will be rising.[8] When technical progress is capital-neutral, wages can rise with productivity and distribution can be constant while the profit rate is constant; when it is capital-saving, wages can rise faster than the productivity rate and distribution improve or inequality diminish while the profit rate remains constant at a satisfactory level.

Under what conditions does the productivity of capital decrease or increase? It usually falls in the first stage of industrialization, when business enterprises substitute machines for labor; it rises in the later stages of industrialization when business enterprises have already substituted machines and software for labor and now primarily substitute new and more efficient machines (machines that allow for a higher output–capital ratio) for old ones; and it is neutral when the two kinds of technical progress are balanced, one checking the other.

Economic growth occurs when the productivity or the efficiency of labor, the relation Y/L, is systematically increasing. This depends on the investment rate, which depends on the expected profit rate, R/K, and on the type of technical progress or productivity of capital, K/Y, which may be decreasing (capital-using), constant or neutral, and increasing (capital-saving). Considering this, in identity (1) we see that the rate of profit, R/K, depends on the functional distribution of income R/Y and on the productivity of capital or type of technical progress, K/Y:

$$R/K = R/Y \,/\, K/Y. \qquad (1)$$

The functional distribution, R/Y (given that $Y = W + R$), depends on the productivity of capital and on the rate of profit.

According to this simple model, that is originated from the model that Marx used to argue on the falling tendency of the rate of profit, and, just for the moment, adopting the assumptions that economic growth is occurring (that is, that income per capita or labor productivity is increasing) and that the profit rate, R/K, is constant, what will happen to wages and to income distribution or inequality?

> (1) If technical progress is neutral (or the output–capital ratio, K/Y, is constant), inequality will remain constant, and average wages or the wage rate will increase at the same rate as labor productivity.

(2) If technical progress is capital using (or the productivity of capital is falling as happened in Marx's time), either workers or capitalists will lose, and inequality will increase; if we assume that the profit rate is constant, the wage rate will have to fall; if the wage rate is at subsistence level, we will have to drop the assumption that the profit rate is constant, wages will remain at the subsistence level while the profit rate will fall, as Marx predicted.

(3) If technical progress is capital-saving (or the productivity of capital is increasing), inequality will diminish and wages will grow faster than the increase in labor productivity.

Since I assumed that the profit rate and the functional distribution of income are constant, these relations between labor productivity and wages are *necessary* relations. They don't depend on class struggle or on the bargaining power of workers. But such power from below will have consequences for our two assumptions: they may cause the profit rate to fall, or the functional distribution of income, R/Y, to to fall. Are these assumptions that the profit rate and the distribution of income are constant important to the argument? No, I made them just as an aid to economic reasoning. In fact, as I will show in the next section, the profit rate and the distribution of income were constant only in the third phase of capitalism, the long phase that I call "classical capitalism". In the other four phases they were not constant, and wages did not increase with productivity, which meant that distribution was not constant.

Phases of capitalist development

Capitalist development is better understood when we think of it in terms of phases. There is a large and old literature on the phases of capitalist development, adopting different criteria. Marxists like Paul Baran and Paul Sweezy (1966) adopted the criterion of market competition and identified a liberal phase and a monopolist phase; Daniel Bell (1973) identified industrial capitalism and post-industrial capitalism; and Giovanni Arrighi (1994: 6) divided the history of capitalism into four major systemic cycles of accumulation, namely the Genovese cycle from the 14th century to the beginning of the 16th century; the Dutch cycle from the end of the 16th century to the mid-18th century; the British century from the second part of the 18th century to the beginning of the 20th century; and the American cycle, in the 20th century. I adopt a different approach. Taking Britain as a reference (because, being the first to industrialize, in this country there was not superimposition of phases as necessarily happened to latecomer countries), and adopting as the main criteria the three types of technical progress and their relation to the profit rate and the wage rate, (that is, with the functional distribution of income), I identify five phases of capitalist development after the long primitive accumulation period which characterized mercantilist capitalism from the 16th century to the 18th century:

- first, the Industrial Revolution in the 50 years before 1800;
- second, the Marxist Phase, from 1801 to 1850;
- third, Classical Capitalism, from 1851 to 1945;
- fourth, the Golden Years from 1946 to 1972;

- a transition crisis from 1973 to 1979;
- and fifth, the Neoliberal Years of Capitalism, from 1980 to 2008.

Naturally, the years given as beginning and ending the phases are approximate; transitions from one phase to the next are not always clear and are not completed in only one year. For the reason already mentioned, I assume that the profit rate is constant throughout, with the exception of the Marxist phase, in which, since technical progress was capital-using in this phase and the wage rate was at subsistence level in the previous phase, the rate of profit had to fall. Yet, such a fall which didn't turn into an obstacle to investment and growth - because I assume that the rate of profit during the Industrial Revolution was above the minimum required by entrepreneur capitalists - was more than satisficing. Table 1 summarizes these phases and the associated technical progress, behavior of the profit rate and the wage rate, and the resulting inequality. In this table, the independent variable is technical progress, which tends to change from capital-using to capital-saving; the profit rate is assumed to be constant, except in the second phase; and the wage rate and functional inequality are dependent variables, except the wage rate in the second phase, in which it is constant only because we drop the assumed constancy of the profit rate, and in the fifth phase, in which the profit rate is constant or stagnant even though technical progress in this phase is capital-saving.

Table 1: Phases of capitalist development and inequality

Phases of capitalist development	Technical progress Y/K	Rate of profit R/K	Wage rate W/L	Inequality R/Y
1. Industrial Revolution (1750–1800)	Capital-using	Constant	Falling	Increasing
2. Marxist Phase (1801–1850)	Capital-using	Falling	Constant	Constant
3. Classical Capitalism (1851–1945)	Neutral	Constant	Increasing with productivity	Constant
Crisis (1929–1945)				
4. Golden Years of Capitalism (1946–1972)	Capital-saving	Constant	Increasing above productivity	Decreasing
Crisis (1973–1979)				
5. Neoliberal Years' *should be* variables (1980–2008)	Capital-saving	Constant	Increasing above productivity	Decreasing
Neoliberal Years' effective variables (1980–2008)	Capital-saving	Constant	Constant	Increasing

In the first phase – the Industrial Revolution – inequality increased because wages were probably falling as peasants were being turned into manufacturing workers. Technical progress was capital-using since the first period of industrialization is a process of mechanization or of substitution of machines for labor. Since technical progress was capital-using and the profit rate was constant at a high level, the wage rate necessarily had to grow more slowly than the productivity rate, or to fall, and inequality had to rise. The period of the Industrial Revolution or of mechanization is also the classical period of "proletarianization" – of the transformation of peasants into industrial workers. Strictly speaking, that this was not a period of falling "wages", because peasants were not wage earners, but it surely was a period of falling remuneration or living standards.

In the second, Marxist, phase, the mechanization process continued, which meant that technical progress remained capital-using, while the wage rate had reached subsistence level and could not be further reduced. Thus, the profit rate necessarily had to decrease, while inequality remained constant. I call this period the Marxist Phase because it corresponds to Marx's tendency of the rate of profit to fall. It happened in Britain approximately in the 50 years after the Industrial Revolution. Yet capitalist development was not endangered and investments were not paralyzed, because the profit rate fell from the exceptionally high level that prevailed during the Industrial Revolution to a level that was still attractive to business entrepreneurs. In this period, inequality was constant, while the profit rate fell and the wage rate remained constant, because wages fell below the increase in labor productivity, which compensated for the capital-using character of technical progress.

One problem that bothers critics of Marx is that it seems irrational for businessmen to adopt a new capital-using technique that will eventually reduce the rate of profit. But the critics overlook the fact that businessmen are following a rational *sequence*. First, firms substitute less costly or more efficient machines for labor, and then, step by step, they substitute less efficient machines that are still more efficient than direct labor. Thus, it is rational to the businessman to buy the new machine; if he does not, he will be driven from the market. Yet, given this pattern of substituting increasingly inefficient machines for labor, whenever a less efficient group of machines replaces labor, productivity of labor will increase, but the output–capital ratio will fall. In consequence, the average productivity of the stock of capital will decrease, and, as the wage rate remains constant at the subsistence level, the final rate of profit will fall.

Technical progress, however, would not consist of "mechanization" (the substitution of increasingly inefficient machines for labor) forever. Approximately between around 1851 and 1950, in the third, Classical Capitalism phase, technical progress changed from capital-using to capital-neutral (a constant output–capital ratio). Given also that the profit rate remained constant, wages should increase along with productivity, as did happen. Thus, inequality remained constant, while real wages were increasing.

Technical progress, however, continued to evolve when countries were already fully mechanized. Thus, in the fourth phase of capitalist development, the Golden Years of Capitalism after World War II (1946–72), technical progress became modestly capital-saving. Instead of primarily substituting machines for labor, business firms now were mainly (but not exclusively) substituting less costly or more efficient machines for old machines. That is one reason why, in that golden age of capitalism, inequality diminished in the rich countries whereas the profit rate remained constant and attractive to businessmen. The constancy of the profit rate was consistent with wages rising faster than the productivity of labor because the productivity of capital was increasing. In fact, in that period the advanced economies experienced high rates of growth and financial stability, while inequality clearly diminished.

Why the model failed in the Neoliberal Years

The 1970s, or, more precisely, the years from 1973 to 1979, were a period of crisis which was characterized by a falling profit rate.[9] Once this crisis was overcome, in the fifth phase, the Neoliberal Years from 1980 to 2008, the profit rate resumed its satisficing level, while the productivity of capital should have resumed its tendency to increase. Thus, if I assume that the profit rate remains constant, as I do in three of the other four phases, the wage rate should increase above the increase of productivity. This is what is in the "should be" row of Table 1. But what actually happened was that the wage rate remained quasi-stagnant. In this fifth phase, the productivity of capital increased at a rate of 0.6 percent a year, and the profit rate, after returning to the previous level, remained constant,[10] while the wage rate was kept practically stagnant. How can we explain this outcome? Given a relatively constant profit rate and an increasing output–capital ratio, wages should continue to increase faster than productivity and inequality should continue to fall. Instead, wages stalled and inequality increased. Why did the bright Golden Years turn into the somber Neoliberal Years?

One explanation for this perverse change is internal to the American economy and politics. In the late 1960s, the pressure of organized labor for higher wages, and especially the first OPEC oil shock of 1973 followed by a general increase in commodity prices, squeezed the profit rate, which fell sharply in the United States together with the growth rate.[11] On the other hand, these same factors caused an increase in inflation despite feeble aggregate demand; in other words, they caused "stagflation" or "inertial inflation", which happens in conditions of insufficient demand when, in particular, wages are indexed and business enterprises are led to increase prices in a phased (instead of simultaneous) way. The response to this fall in the profit rate, principally in the two more severely affected countries, namely the United States and Britain, was neoliberalism and financialization, that is, respectively, the return to radical economic liberalism and the precarization or flexibilization of labor contracts, and the development of financial innovations coupled with speculation and fraud that created fictitious wealth. The consequence was a great increase of the remuneration of rentier capitalists, who live on interest payments, rents and dividends, and of bright young professionals –financiers – who manage the wealth of the rentiers and manipulate the speculative and risky financial instruments that they invented.

After the Great Depression of the 1930s, economic liberalism was largely abandoned in favor of Keynesian and social democratic ideas, which, after World War II, in the Golden Years of Capitalism, were effective in stabilizing economies, ensuring satisfactory rates of growth, and building the welfare or social state in Europe. But in the 1970s, with the reduction in profit rates, liberalism combined with meritocratic professionalism returned in new clothes, transformed into a reactionary ideology: neoliberalism. The change was complete with the coming to power of Prime Minister Margaret Thatcher in Britain and President Ronald Reagan in the United States. In order to deal with the profit squeeze, the new administrations in the United States and Britain engaged in reducing direct and indirect wages by several means. This response overlooked the fact that the 1970s crisis was cyclical, not structural, and that wages could increases faster than productivity *without* reducing the profit rate because technical progress was capital-saving. Yet domestic factors alone cannot explain the neoliberal years and the increasing inequality that occurred during that time in rich countries. We need to take into consideration two international or global factors that made the neoliberal political coalition so aggressive: increasing competition from developing countries and increasing migration to rich countries. Exports of manufactured goods from the low- wage newly industrializing countries (NICs) increased competition and depressed wages in rich countries. Some NICs, such as

Brazil and Mexico in the 1970s and China from the early 1980s, which were able to keep their exchange rates competitive, profited from the opportunity offered by globalization, and were highly successful in exporting manufactured goods to the rich countries. At the same time, the major increase in migration to rich countries directly depressed their wage levels. This rise in immigration did not result from rich countries opening their borders – on the contrary, they even erected barriers to close them – but from pressure on the poor to emigrate in order to improve their miserable standards of living, combined with the falling costs of transport and communication. This, along with the unacknowledged interest of rich countries in employing cheap labor, explains the increase of migration into them.

The neoliberal and meritocratic domestic response to these challenges was the adoption of market-oriented institutional reforms (privatization and deregulation), flattening the existing progressive income tax system, making more “flexible” the labor contracts that made it difficult for business enterprises to lay off workers, and reducing the scope of the universal social services that characterized the welfare state. Between 1980 and 2008 the world experienced the Neoliberal Years. In the rich countries, increased competition, labor-saving technologies, and policies giving more power to business enterprises vis-à-vis workers were effective in keeping wages quasi-stagnant, whereas productivity continued to increase, although at lower rates than in the golden age.

The stagnation of wages combined with capital-saving technological progress should mean an increase in the profit rate. Indeed, it recovered from the fall that occurred in the 1970s, but thereafter it remained constant at a satisfactory level, as indicated in Table 1. To whom, then, was transferred the increased economic surplus resulting from wages becoming quasi-stagnant at a time when technical progress would have allowed wages to increase? Some of the supposedly greater economic surplus did not materialize; instead, the gains accrued largely to fast-growing middle-income countries, particularly China, which exported manufactured goods and experienced higher rates of growth. With this qualification, my hypothesis is that the rentier capitalist, including a large rentier middle class, the professional financiers and the top management of the major corporations, who form the neoliberal class coalition, reaped this economic surplus.

The neoliberal hegemony was possible only because a narrow class coalition of rentier capitalists and financiers became dominant with the “scientific” support of neoclassical economists. In this coalition, the relatively new ingredient was the strategic role of the financiers. Modern rentiers or inactive capitalists, who live on interest payments, rents and dividends, were unhappy with the low interest rates that prevailed in the Golden Years. The best explanation for that is that, as John Kenneth Galbraith argued in his 1967 classic book *The New Industrial State*, capital had become *abundant* in the world. In consequence, the real interest rates accruing to rentiers were around 2 or 3 percent a year – a little above the interest rate on US Treasury bonds. It was to “solve” this problem that the neoliberal coalition was formed. The strategy that financiers adopted to increase the gains of rentier capitalists while reaping large salaries and bonuses was financialization – an increase in *fictitious* capital at a rate three or four times that of the increase of production. This was possible not only because the more risky financial innovations were more profitable, but also because classic speculation in asset markets (principally in stock, real estate and oil) created bubbles – stock exchange bubbles, commodity bubbles, real estate bubbles – a daily phenomenon in the era of financialization and the Neoliberal Years.

Financiers did not offer this gain to rentiers for free. Since the Golden Years, the professional class and particularly the top executives of major corporations were able to substantially increase their pay – in the form not only of direct salaries but also in bonuses and stock options – in the name of meritocratic values. This was predictable because organizations had replaced family units as the basic productive unit; because professionals or executives now played a strategic role in organizations; because top executives replaced stockholders in controlling organizations and in determining their remuneration; because, in sum, the strategic factor of production had ceased to be capital and become knowledge, particularly management. In such conditions, the professional or techno-bureaucratic class, that is, the controllers of administrative, technical, and communicative knowledge, benefited. In principle, the benefits should have accrued to the workers as the productivity of labor as well as that of capital increased. In fact, they accrued mainly to top executives and to financiers, including traders. Since the 1950s, top professional executives, and since the 1980s also financiers – both parts of the professional class – gained sufficient political power to be able to capture a substantial portion of the economic surplus that was being produced by the economic system.

The professional or techno-bureaucratic class had already grown large and powerful in the 1950s, and its meritocratic ideology had become pervasive. This became still more evident in the 1980s, when salaries and bonuses increased enormously, making unrepresentative the simple profit–wage functional distribution that I have been using to measure inequality. In order to gauge the relation between salaries and wages, it would be necessary to take into consideration salaries and bonuses, or, since these data are normally not available, distribution based on deciles of income, even though these statistics underestimate income accruing to capital. In the Neoliberal Years, for instance, wages remained practically stagnant in the United States, whereas salaries – mainly high salaries – and bonuses skyrocketed, and the share of national income of the richest 2 percent increased enormously.

This distortion in favor of the professional class will not be corrected soon. So long as education does not allow for an increase in the supply of professionals sufficient to reduce their market value, top executives and financiers will continue to capture a sizable share of the economic surplus. As well as that, they will probably continue to enjoy substantial remuneration, for two additional reasons: because top executives control the management boards of the great corporations, and because, in a world where the value of the business enterprise is measured by discounting its cash flow, competent executives have a strategic weight in determining such value: a competent management can increase the value of a business enterprise, and an incompetent one can reduce it sharply, in a relatively short time span. Thus, unless democracy is deepened, and the state is able to reduce income inequality through progressive taxation and through the orientation of social expenditure toward the poor, inequality deriving from the relative shortage of highly qualified professionals and from the widespread meritocratic ideology that legitimizes large differences in incomes will probably continue to be very great: this despite the adoption of increasingly capital-saving technologies that allow for the reduction of inequality without risking that the profit rate become unattractive to business entrepreneurship. On the other hand, even when constraints related to satisfactory profit rates and to the market for professionals are relatively neutralized, ideologies legitimizing inequality will continue to limit the effectiveness of the political struggle against inequality.

I am not so sure about the gains of rentier capitalists. They benefited from the neoliberal years, although they didn't have a real function in the economy. Their share of income has no relation whatsoever to their contribution to society. But, since the 2008 global financial crisis, which was a crisis deriving of abundance of capital, of capitals looking desperately for uses, real interest rates have become negative, and their share of the national income is since then necessarily shrinking. In this way the financial crisis is performing its classic role of destroying excessive capitals..

This analysis and the associated claims are reasonably well supported by the historical data, but I didn't feel necessary to bring them to the floor. And I don't believe that my claims are "true"; they attempt to be true; they are just hypotheses that, I hope, can help us to understand capitalist development. Summing up, always having Britain as the paradigm because it was the first country to complete its Industrial Revolution, we have:

First, after the long phase of primitive accumulation, in the Industrial Revolution, approximately from 1750 to 1800, inequality increased, because technical progress was capital-using, but investment materialized because the profit rate was maintained at a high level while the wage rate or the workers' standards of living deteriorated to the subsistence level.

Second, immediately after the Industrial Revolution, in the Marxist phase (approximately 1801–50), inequality remained constant while the wage rate remained at the subsistence level, in so far as technical progress remained capital-using, but the profit rate fell.

Third, in the Classical phase, from 1850 to 1950, inequality remained constant as technical progress became capital-neutral, and it was possible to increase the wage rate in line with the increase in productivity while the profit rate remained attractive to capitalist entrepreneurs.

Fourth, in the Golden Years of capitalism, approximately from 1950 to1980, inequality fell as technical progress became moderately capital-saving, which allowed wages and salaries to increase while the profit rate remained constant.

Fifth, after 1980, in the Neoliberal Years, inequality increased even though technical progress continued to be capital-saving, which allowed the profit rate to remain constant while wages and salaries increased faster than productivity; instead, wages became quasi-stagnant because they were depressed not only by neoliberal policies but also by competition from immigrants and from fast-growing middle-income countries exporting manufactured goods. The surplus derived from capital-saving technical progress was captured by rentier capitalists and by the top branch of the professional class – particularly the richest 2 percent of the population.

In the near future, after the 2008 financial crisis, it is possible that inequality will remain constant because technical progress will continue to be capital-saving, and this may compensate for the negative effects on wages stemming from competition from developing countries exporting manufactured goods, and from immigration. As for neoliberal and meritocratic policies aiming to increase inequality, they will probably be neutralized because the political coalition promoting them was severely hit by the

2008 global financial crisis. Yet we should not be optimistic: the neoliberal coalition was hit but it did not collapse: it only lost relative power.

Developing countries

All the above relates to distribution within rich countries. What to say of developing countries? What to say about the distribution *within* developing countries and *between* them and rich countries? First, we have to distinguish poor from middle-income countries; second, among the latter we must distinguish the fast-growing from the slow-growing countries. But before that, it is necessary to remember an old, insightful, but not wholly consistent theory: the Kuznets curve. According to Simon Kuznets (1955), economic development is characterized by an inverted U curve. In the beginning of the process, income is concentrated; after some time inequality ceases to increase; and eventually inequality diminishes. Why? One explanation is the tendency of technical progress to change from capital-using to capital-saving. But Kuznets did not cite this explanation. Instead, using simple supply and demand reasoning, he argued that in the early stages of growth investment in physical capital is the main mechanism of economic development. Thus, the rich, who supposedly save and invest more, will be compensated by high profits and by an increasing share of national income. After some time, however, this tendency is exhausted as knowledge or human capital becomes increasingly strategic and wages and salaries grow faster than profits.

I believe that the two theoretical frameworks outlined above are valid explanations of the inverted U shape of the distribution. Yet there is an historical way of looking at the problem that takes into consideration either, in Marxist terms, the transition from pre-capitalist to capitalist societies or, in terms of modernization theory, the transition from traditional to modern societies. According to these two views, this transition, especially its main episode, the Industrial Revolution, is highly income-concentrating in so far as it involves the proletarianization of the peasants. Yet in Latin America and particularly in Brazil, where a mercantilist colonization combined with slavery prevailed, an egalitarian peasant society such as the one that existed in the north of the United States never emerged. Inequality was inherent in the mercantilist colonization and in the plantation system where slavery prevailed. Thus, when industrialization begins, there is an unlimited supply of labor to manufacturing industry at very low wages. This fact, combined with the existence of an industry that exports some commodities using local natural resources, creates the conditions, in a first moment, for primitive accumulation, and, in a second, for industrialization. In both moments, income is very highly concentrated. The capital accumulated in the export industry creates an opportunity for industrialization still within the framework of a highly unequal society. Industrialization will be initially oriented to the domestic market, and will keep inequality high because Arthur Lewis's (1954) "unlimited supply of labor" prevents wages from growing with the increase in labor productivity.

To consider only the economic variables, inequality in a developing country will continue to increase so long as an unlimited supply of labor or a reserve army of unemployed or underemployed workers does not become exhausted. The economic surplus produced by manufacturing will benefit not only the capitalist class but also the professional middle class. These two groups plus a layer of highly skilled workers form the modern or capitalist sector of the dual or underdeveloped economy, whereas the other workers remain in the "marginal" sector, which is no longer an untouched pre-capitalist or traditional sector but a sector functional and complementary to the process of capital accumulation and growth.

Before this marginal sector is exhausted, what can put a stop to income concentration is democratic transition. Usually, the victorious political coalition that achieved democracy relied on the participation of the working class and, more broadly, the participation of the poor. Thus, after coming to power, it is constrained to adopt income policies benefiting the poor. This is what happened in Brazil in the 1985 democratic transition. The democratic political coalition assumed political commitments to the poor that were relatively honored after the transition. Since 1985, successive administrations have adopted a variety of policies aimed at reducing inequality by making health care and basic education universal services, by increasing the minimum wage, or by adopting targeted minimum-income policies. In consequence, inequality in Brazil, measured in terms of the Gini index, although still high, fell between 2001 and 2008 from 0.594 to 0.544, while between 1999 and 2008 the minimum wage increased by 61 percent in real terms...[12]

Conclusion

To summarize, capitalist countries developed in five phases, which we defined according to the type of technical progress. In the two last phases, the Golden Years and the Neoliberal Years of Capitalism, the dominance of capital-saving technological progress (which involves substituting new for old machines rather than capital for labor) in rich countries allowed wages to increase with the productivity rate while keeping the profit rate constant at an attractive level, but in the Neoliberal Years wages became quasi-stagnant while the top professional class and rentier capitalists gained. This negative outcome derived from institutional reforms and policies associated with neoliberalism, from the increased power of the professional class and its meritocratic ideology, from competition from low wage middle-income countries, from the weakening of labor unions, and from the increased migration of poor people to the rich countries.

In making these claims I am using a model, but I am aware that the model is unable to accommodate the whole of reality, and that, given the historical facts, I have had to consider exogenous factors. Thus, my claims are far from being as unconditional as they may appear to be. They are just an attempt to understand growth and distribution in an historical and simple way – they offer a broad view of the evolution of systems of political economy, which are extremely complex. It is this complexity that makes them extremely difficult to coordinate, that requires cooperation between the state and markets to perform this job, and that makes initiatives like the neoliberal one intrinsically condemned to failure.

Developing countries are probably either in the phase of mechanization, when the productivity of capital is falling, or in the classic phase of capitalist development in which technological progress is capital-neutral and the wage rate increases with productivity. The countries that are in this latter condition could grow without increasing inequality, but they face a major obstacle: the unlimited supply of labor. Democracy, however, may force elites and politicians to adopt effective redistributive policies.

So far I have discussed distribution within countries, both rich and developing. This is what specialists working in the area of measuring inequality normally do. Yet we must also consider distribution among countries. On that matter, two things must be underlined. First, since globalization took off, the countries that have most benefited from it are not the rich countries (contrary to what their neoliberal supporters have supposed) but the middle-income countries that exported manufactured goods, mainly China. Second, this catching-up process has been effective in reducing world inequality, even though many developing countries are in a phase of economic development associated with increasing domestic inequality. This seems paradoxical, but it is not. Take, for example, the case of China: after it abandoned communism and adopted developmental capitalism in the 1980s, growth was enormous, and concentration of income equally great. Yet since 1980, and notwithstanding the domestic increase in inequality, more than 650 million people have been lifted out of poverty; and almost all the 1.4 billion Chinese have reduced the difference between their average income and that of rich countries. Obviously, this fact has contributed to some reduction in world inequality. The Gini coefficient for "weighted international inequality" (which should not be confused with the "global inequality" that ignores countries) fell from 55.7 in 1965 to 50.5 in 2000 (Milanovic 2007: 85). This happened because several developing countries, particularly a number of Asian countries, grew faster than rich countries. The improvement in domestic distribution in some of these countries may have played a role, but most probably a small one.

We know that in the short run economic growth causes income concentration, while in the long run it causes inequality to fall not only because of the character of technical progress, but also because richer countries tend to be democratic, and in democracies economic policies tend to reduce inequality. In this case, however, we observe that in the short term economic growth in poor and middle-income countries causes a reduction in international inequality independently of democracy.

In this article I have argued that policymakers in democratic states, usually those representing left-wing or social democratic political parties, are able to achieve a moderate reduction of inequality. In other words, there is some discretion for politics in this matter, despite, in the Neoliberal Years, a hegemonic policy regime accepted by conservative and social democratic parties alike.[13] The social or welfare states constructed in Western and Northern Europe after World War II are proof of this possibility. Some favorable results in developing countries are another. Two basic means are used: progressive taxation and an increase in the tax burden to finance expanded social services in the areas of education, health care, social security and social assistance. In this last area, minimum-income or basic-income programs may effectively reduce inequality. A gradually increasing minimum wage is another major redistributive policy.

Given structural economic constraints – basically the rate of profit – who is supposed to pay for these redistributive policies? We may always say that there is some scope for reducing profits, but the economy needs business entrepreneurs who are motivated to invest. Those whose incomes must be reduced in democratic societies are rentier capitalists, the top level of the professional class – the executives of multinational enterprises that also benefited from globalization – and the financiers who manage the wealth of rentier capitalists. The incomes of these three groups (particularly the first) bear no relation to their contribution to society, and economic policy should aim to tax them more heavily. In successful cases of income redistribution within the capitalist system, entrepreneurs or entrepreneurial business enterprises continued to make satisfactory profits, whereas inactive or rentier capitalists living on interest, rents and dividends lost income; Keynes, in the *General Theory* (1936), referred to the "euthanasia of the rentiers". It is time that excessively remunerated professionals likewise moderated their gains. In modern, social capitalism, in the welfare state, democratic politics is supposed to follow this path, to combat the curse of inequality. As for a reduction in the outlandish pay of top executives and financiers – this is a battle that is just beginning, which reached the public agenda in the 2008 global financial crisis. An increased and progressive tax burden on the remuneration of rentier capitalists and top professionals will not make capitalism just, but it will reduce its intrinsic injustice.

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[1] By republican intellectuals I mean intellectuals who are able to defend and promote ideas that are not in their private interest.

[2] "All industrial revolutions" because I view the mercantilist state as the first historical form of the developmental state.

[3] According with World Bank data, in 2011 the Gini coefficient for Argentina was 45.5, for Brazil 54.7, for Indonesia 34.0, for India 33.4, for Mexico 48.3, for Morocco 40.9, for South Africa 63.1 (World Bank Gini index, accessed on November 24, 2011).

[4] There is an extensive development economics literature on this topic; the founding book on developmentalism as an economic and political strategy is by Helio Jaguaribe (1968).

[5] This assertion follows from Marx's tendency of the rate of profit to fall, which was the subject of my book *Lucro, Acumulação e Crise* (1986). I use this model of growth and distribution here to discuss inequality.

[6] See on this topic principally Rueschemeyer, Stephens and Stephens (1992), Przeworski et al. (2000) and Bresser-Pereira (2012).

[7] The data on long-term variables are not fully reliable, but according to, for instance, Gérard Duménil and Dominique Lévy (2001: Fig. 1) – probably the most competent researchers of the Marxian variables – the profit rate varied in long cycles between 1869 and 1999, but around a 16% average.

[8] In predicting the stagnation of capitalism, Marx assumed that technical progress was and would continue to be capital-using, but he referred to the possibility of capital-saving technology when he listed the counter-tendencies to the tendency of the rate of profit to fall.

[9] I am adopting a periodization from 1948 to 2007 that is partially supported empirically by Thanasis Maniatis (2012), who divides that era into the Golden Years (1948–65), crisis (1966–82) and neoliberalism (1983–2007).

[10] According to Maniatis (2012: 21), the profit rate in the US was 13.9% in 1948–68, 8.8% in 1969–82, and just 8.9% in 1983–2007. (These periods are not exactly the same as those presented in previous footnote.)

[11] In reality, according to Duménil and Lévy (2002), the profit rate began to fall in the United States after World War II, but recovered in the late 1950s, only to fall again, sharply, in the 1970s. Only after 1982 would a recovery begin.

[12] Hoffmann (2009). Although the minimum wage played a role in the systematic reduction in inequality in Brazil, in a personal conversation Hoffmann remarked that this reduction began in 1995, before the minimum wage increases –.

[13] On this matter see the papers in Andre Glyn (2001), particularly that by Adam Przeworski (2001).