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Development, progress and economic growth

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Abstract. Progress was an idea of the 18th century; development, a project of the 20th century that continues into the 21st century. Progress was associated with the advance of reason, development with the fulfillment of the five political objectives that modern societies set for themselves: security, freedom, economic well-being, social justice and protection of the environment. Today we can view progress and development as equivalent. Both were products of the capitalist revolution, and of the economic development that began with it. Economic development or growth, in its turn, is the process of capital accumulation with the incorporation of technical progress that, mainly through productive sophistication and the increase of the value of labor, increases wages and improves standards of living. The five objectives that define development, as well as the three social instances existing in society change in an interdependent way.

Key words: progress, development, economic growth, productive sophistication

JEL classification: O1

Progress is an idea and an aspiration of the 18th century; development, an idea and a project of the 20th century that continues into the 21st century. In the Enlightenment the philosophers realized that the ideal of reason prevailing over tradition and religion was something that had ceased to be utopian and could be achieved; after World War II, and after two hundred years of economic development in the more advanced capitalist countries, developmental politicians and economists realized that underdeveloped countries could also develop and gradually reach the standards of living of the advanced countries provided that they were able to formulate a national development strategy. In the 19th century socialist intellectuals and workers realized that capitalism was dynamic but unjust, and called for democracy and socialism. Democracy was achieved by rich countries by the end of that century through universal suffrage; after World War II developing countries which were able to grow and complete their national and industrial revolutions also made their transitions to a consolidated although *minimal* democracy. Some socialist demands were also realized in the countries that had become democracies, and those countries going further down this road came to be called social democracies. This represented a genuine achievement of socialist ideas, but socialism as an alternative form of social and economic organization to capitalism proved to be infeasible at the present stage of world development, as the experience of the

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countries that underwent socialist revolutions eventually demonstrated. But under capitalism, progress or development or human development (equivalent expressions today) proved to be feasible. How was this possible? Why can progress and development today mean essentially the same despite their distinct origins? In the process of development, which is its essential manifestation – economic, political, social or environmental development? And does the distinction between economic development and economic growth useful, or is more appropriate to se them as equivalent, and distinguish them from development or progress.

A social construction and two definitions

For the Enlightenment philosophers, the key to progress was the advancement of reason and of science; it was the search for rational foundations for morality instead of traditional or religious foundations. This battle was essentially won. Religious fundamentalisms are still present in the modern world, but they are marginal; religion is restricted to private life; political regimes became secular, as the church was separated from the state. But the battle for development was not won jointly with the battle for progress. Reason was not sufficiently strong to subdue either the poverty of countries which didn't undergo capitalist revolutions or modernization, or the interests of the rich and the powerful everywhere. Regardless of the victory of reason over religion in political life, the battle for economic development and social justice was still to be fought.

This social construction is far from a conscious and peaceful process – first, because it is a road full of false pathways; second, because it is a process of trial and error in which agents lack the ability to foresee with any precision the consequences of their actions; and third, because it is an essentially conflictual process at the individual, group and social class levels. This conflict may assume a mild and positive form when expressed in competition, but it is often the outcome of domination, and expresses itself in exploitation and revolt. Marx emphasized the class struggle as the fundamental engine of history, but his contention was only partially true because class struggle didn't prove to be as *decisive* as he expected – it was unable to achieve the transition from capitalism to socialism. On the other hand, class coalitions involving compromise and cooperation between segments of social classes proved effective in generating development. In the distant past, the mercantilist alliance between the court nobility and the high bourgeoisie against the landed or feudal aristocracy was the first example of a developmental class coalition; after World War II, the Fordist association of business entrepreneurs, workers and public bureaucracy was another example; recently, the association of rentier capitalists (the upper and middle classes) and the financiers who manage their wealth has amounted to a neoliberal, reactionary class coalition. Whereas developmental class coalitions proved to be effective in producing fast economic growth, class struggle proved effective in achieving democracy and reducing political and economic inequality.

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The history of mankind since the industrialization that completed the capitalist revolution has been the history of this complex and conflictual but *rational* social construction, in which social agents sought the appropriate means to achieve their value-determined objectives. Rational, first, because, since the industrial revolution, this search has identified profit as the objective of economic activity and the accumulation of capital incorporating technical progress as the adequate means to achieve it; and second, because, since the organizational revolution (when production came to be controlled by professional managers rather than families), it also involved rationalization or bureaucratization aimed at increasing the administrative effectiveness and efficiency of productive organizations and of the state.

It was by means of this rational process of social construction that progress or development (terms which today we can treat as synonyms) has been taking place since the capitalist revolution. How to *define* progress and development? In his classical work on the theme, J.B. Bury (1920: Introduction) defined progress thus: "This idea means that civilization has moved, is moving and will move in the desirable direction." Development, in its turn, is the historical process through which national societies achieve their political objectives of security, freedom, material improvement, reduction of social injustice, and protection of the environment. Progress and development are historical phenomena that date from the capitalist revolution in each country. Unlike development, progress doesn't have the nation-state as its reference because, although the historical process of development was born together with the idea of progress, development emerged after World War II as a challenge for the latecomer countries. But progress and development are similar concepts. The "desirable direction" that Bury refers to in defining progress amounts to those political objectives whose gradual and difficult attainment constitutes development. Thus, the two concepts are equivalent, even though the historical conditions from which they emerged were different: progress was defined in the Enlightenment as a universal objective, whereas development, after World War II, was defined as a national objective.

Another way of defining development as well as progress is in terms of the progressive guarantee of the four historically defined human rights: civil rights, political rights, social rights, and finally republican rights, which require that the *res publica*, the public patrimony (including the natural environment) is utilized for public purposes in light of the public interest. These human rights have a close relation with historically determined political objectives. Political theorists often locate the origins of progress in Greco–Roman civilization, but this makes little sense. Ancient thought viewed history as a cyclical process. The Greek ideal was Aristotle's "good life" to be achieved collectively in the polis; the Roman ideal was similar: the achievement of the republic. Greek democracy and the Roman republic were major political achievements, but they were not consistent with the economic and social conditions of the time, and were soon abandoned. Christians saw the realization of the city of God in heaven. For the Greeks, the good life and the public interest were to be achieved here and now, while for Christians the objective was salvation. In both cases the idea of progress was

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absent, since the idea of development is historical: it involves a permanent trade-off between the present and the future, between the achievements of agreed objectives here and now and those to be achieved in the not-too-distant future, but that may involve more than one generation.

Development achieved

Such advance is neither linear nor predetermined. Regression is always possible, as we saw in Germany with Nazism, and in the United States after the September 11, 2001 terrorist attack. But, unlike ancient civilizations, which underwent periods of prosperity followed by decay and extinction, our capitalist civilization does not seem fated for decay, but for permanent change and renovation. The hegemonic country may change: it was Britain in the 19th century; since the beginning of the 20th century it has been the United States; and in the future it may possibly be China. But when this eventually happens the world will not go back to the old Chinese civilization but will continue with the capitalist civilization. Only vestiges remain of Chinese civilization; China is today a capitalist society. The capitalist civilization is not one among many civilizations, as were the Chinese, the Egyptian, the Persian, and the Maya civilizations. Its origins began with Greco–Roman civilization, which changed first into Christian and then into Western civilization, and today, after the capitalist revolution, has become a *universal* civilization. Only one major civilization is resisting it, namely Arab civilization; but, although Arab civilization will retain some of its characteristics, above all its religion, as did the other civilizations, I am persuaded that its integration into capitalist civilization is only a matter of time.

The question since the beginning of the 20th century is whether there has indeed been any progress or development. There was little doubt about that in the 19th century, but the irrationality and major regression represented by the two world wars, fascism and Nazism led leading intellectuals to doubt or even to deny that progress had occurred. Critical theory, as expounded in Horkheimer and Adorno's *Dialectic of Enlightenment* (1944), dramatically rejected the ideal of progress. I will not discuss this empirical question, but I will offer two arguments. First, the continuous spread of capitalism, in so far as peripheral nations struggle to emulate the culture of the more advanced countries, demonstrates that progress is something that people strongly seek. After World War II, it became clear that the world was divided into developed and underdeveloped countries. Developed countries enjoyed higher standards of living, had made their transition to democracy, and offered limited but effective protection for labor. First, they industrialized; second, they turned democratic; third, they reduced, although modestly, economic inequalities by increasing wages with productivity and by establishing a large welfare state; fourth, in the last quarter of the 20th century, despite the neoliberal hegemony and the increase of inequality, developed countries began to protect systematically the environment. Since World War II, the peoples in the underdeveloped countries who were able to organize themselves as autonomous nations followed in the footsteps of the developed countries; some also industrialized and improved their standards of living.

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A second, related, argument is that in the last three hundred years, people gradually realized that they were able to set political objectives for themselves and use their state as an *instrument* to achieve them. Taking the more developed countries as a reference, they adopted, first, the goals of security and individual liberty to be assured by the liberal state; second, economic well-being to be achieved by the developmental state; third, social justice to be achieved by the welfare or social state, and, possibly, by the socialist state; and finally, protection of the environment to be achieved by the republican state – a state able to protect itself and the public patrimony from constant attempts to capture it. These are political objectives, which were adopted collectively by the exercise of *politics*, whose main instrument of collective action was *the state*, that is, the legal system and the organization that guarantees it. Within this framework people in modern societies are in one way or another engaged in a social construction; they are every day building their nation, their civil society and their state. They are seeking human development or progress. And, in the long term, they are having some success in their endeavors. Taking an interval of 50 years as a parameter, we can ask ourselves whether, in each period, the countries that were able to complete their capitalist revolutions advanced in terms of security, individual freedom, economic well-being, economic equality, and protection of the environment. And our answer will probably be that, with one or two exceptions in country terms, the social construction that characterized this three- hundred-year period produced progress or development. The improvement in the quality of life brought by steam and internal combustion engines, electricity, water supply to homes, sewage systems, vaccines antibiotics and curative medicine makes people not want to return to the past. Conservatives may honor the past more than progressives do, but they are happy with the material progress achieved, and use it as an ideological weapon to justify the ruling order.

The key role of economic development

In this social construction economic development or economic growth plays a key role. We have known since Marx that the economic infrastructure and the political superstructure, or, as I prefer to say, the economic instance, the institutional *sensu stricto* or normative instance, and the ideological or cultural *instance* of society, which are interdependent and change together, although in a contradictory or dialectic way. Marx saw the economic instance as the determining mover of society, but, after his and Engels's time, men increased their knowledge of how society changes, at the same time as they empowered the main institution that regulates or coordinates modern societies: the state. The consequence of this double improvement – more knowledge and a more capable state – made history less determined by the economy, and increased men's control over their destiny. It is essentially for this reason that I say that men and women are involved in a social construction in modern societies, they are engaged in promoting progress or development.

Economic growth, which is also the outcome of a social construction, remains today the key cause of development or progress. Why? A first, more simple

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answer to this question is that men and women spend most of their time working to achieve greater economic security and better standards of living; they spend much less time fighting for political, social, and environmental goals that have essentially been achieved.

A second argument is that all the other main political objectives that modern societies set for themselves depend on the existence of an economic *surplus* which, in ancient times, was the outcome of pure imperial extortion, since technical progress was inexistent and there was not the increase of the economic surplus, whereas, since the capitalist revolution, it has assumed the character of profit to be achieved in the market, thus being the outcome of economic development. Primitive societies didn't produce an economic surplus, and for that reason there was no domination; all lived at the subsistence level. The moment that modest technological progress – the discovery of agriculture in the hydrographic basins – allowed for the production of a surplus, domination appeared, as a small group appropriated this surplus by military force and the legitimization of religion. Within this historical framework, domination and exploitation depended essentially on the military and religious power of the dominant group. Things changed with the emergence of capitalism. Now, the appropriation of the economic surplus ceased to depend on the use of sheer force but was achieved as a result of market exchanges. Such a major change could be completed only when a country underwent its industrial and capitalist revolution. At a later moment, with the second industrial revolution and the organizational revolution, capitalism changed into a techno-bureaucratic system, in which the appropriation of the economic surplus continued to depend on the ownership of capital, but now depended also on knowledge and continued to be achieved in the market. With the capitalist revolution, domination and exploitation continued to play their roles, but the appropriation of the economic surplus did not require the direct use of violence. Profits, high salaries and bonuses were realized in the market through the exchange of equivalent values. This is not the moment to discuss the political struggles that took place, and continue to take place, over this unfair form of income distribution according to ownership of capital and knowledge. I want just to remark that the belief that distributing income according to knowledge is fair is only meritocratic ideology.

What I want to signal by bringing the concept of economic surplus to the fore is the key role of the production of the economic surplus in the achievement of the other four political objectives in the capitalist civilization in which we live. They all depend on economic growth and the production of a surplus. First, security: the more developed a country is, the more capable will be the state and the more secure will society be. With the exception of the United States, where the level of imprisonment is extremely high, rich societies are also secure societies. The same is true in relation to individual freedom, which liberalism claims is asserted against the state, but which actually depends on an effective police force and an effective justice system that only a capable state can provide. The same is true also of social justice, though again with the exception of the United States: developed countries have achieved greater equality and a more developed welfare state than poor countries. And the same is true in relation to the

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protection of the environment. Rich countries used to exploit nature more than poor countries did, but today they show that they are able to protect it in a substantially more effective form than poor countries. In all these four cases the assurance, respectively, of civil rights (security and freedom), social rights (social justice) and republican rights (the public patrimony including the natural patrimony) depends on the existence of a capable and legitimate state able to tax the private sector. The protection of rights is so expensive that only rich countries are able to reasonably guarantee them. Liberals used to argue that only social rights were expensive, but Holmes and Sunstein (1999) have demonstrated that this is simply not true – security and liberties are equally expensive. And I would also include the protection of the environment. Thus, besides assuring a decent standard of living for all, even in countries that manifest high economic inequality, economic development is essential for the achievement of the other political objectives or human rights in so far as only a developed country is able to generate the tax revenues required to meet the cost of citizens' rights.

In development or progress, the role of economic growth is strategic, first of all because economic activity oriented to the production of a surplus became rational only with capitalism. Before that, the eventual surplus was consumed mostly in the form of temples, fortresses, and preparations for war. Since capitalism prevailed, the economic surplus has been used primarily in investment, in increasing the productive capacity of the country. The second reason the role of economic growth is strategic is that the achievement of the major political objectives that men have set for themselves in modernity (security, individual freedom, economic well-being, social justice and protection of the environment) depends on economic development.

Economic development or economic growth

Given the strategic role of *economic* development in creating the economic surplus that development or progress requires, we must ask ourselves what economic development or economic growth *is*. Economic development is a historical economic phenomenon that can be understood only in historical perspective. It is a process of capital accumulation incorporating technical progress that increases the standard of living of the population. It is a historical process that arrives when a country undergoes its national and industrial revolution, and, in this way, completes its capitalist revolution. Understanding economic growth is helped by adopting structural, Schumpeterian, Keynesian, and new-developmental perspectives. A *structural* perspective, because economic development involves change in the three instances of society – direct change in the economic instance, and indirect change in the normative and the cultural instances. A *Schumpeterian* perspective, because the role of the innovative business entrepreneur is as important as the role of the state in causing economic growth. A *Keynesian* perspective, because it is not enough to analyze economic development on the supply side. For sure, countries grow only if they educate their people, promote science and technology, practice some industrial policy, and invest in infrastructure; but, except for the last of these, in

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national societies that seek growth, these activities are daily endeavors of millions of people. Besides investing in infrastructure, government is supposed to create investment opportunities for business enterprises by adopting macroeconomic policies to sustain *demand.* And, finally, a *new-developmental* perspective, because in developing countries sufficient aggregate demand is not enough to motivate business enterprises to invest; it is also necessary that competent business enterprises have *access* to demand, something that is not guaranteed because they face a tendency to the cyclical and chronic overvaluation of the exchange rate.[1] Unlike in developed countries, in developing countries well-educated people, innovative entrepreneurs, efficient business enterprises and sustained demand are not sufficient conditions for investment and growth. Given the tendency to the cyclical and chronic overvaluation of their exchange rates, economic policies are also required to neutralize such a tendency and to ensure that the national currency floats around its *competitive* equilibrium – the "industrial equilibrium" – which is the one that connects the competent business enterprises to demand.

Economic development starts only when a people becomes a *nation* and achieves its national and industrial revolution, in short, its capitalist revolution. It is only from then on that the systematic improvement in people's standard of living takes place. Only after the capitalist revolution is it possible to discuss economic development in the strict sense of the term, because only from this moment on does technical progress occur in a fast and *self-sustained* way, insofar as the reinvestment of profits with the incorporation of increasingly efficient and sophisticated technologies becomes a necessary condition for the survival of the business enterprise (Celso Furtado 1961: chap. 3).

From this perspective, the historical agent par excellence of economic development is the nation – it is the national society that, sharing a common destiny, is able to control a territory and build a state that will be its chief instrument of collective action. The determining condition for accelerated economic development is that this nation has enough autonomy and cohesion to formulate, through its state, a national development strategy – an ensemble of institutions and agreements that create profitable investment opportunities for competent business enterprises. There is no example in history of true economic development under colonial rule, or without some national development strategy. In the development process, the three social classes existing in modern societies – the capitalist class, the wage-earning working class, and the salaried professional or techno-bureaucratic class – have contributions to make. Entrepreneurs invest and innovate; the elected and non-elected public bureaucracy govern the country promoting economic development; the growing private professional class performs a double role of promoting knowledge and of managing business enterprises transformed into large organizations; the workers are directly in charge of production. The public and private techno-bureaucracies, besides their key role in the process of organizing production and in the generation of creative ideas that are so important in the modern world, contribute directly to increasing levels of per capita income, to the extent that their salaries reflect the high value-added per capita embedded in their work.

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The same happens, although to a lower degree, to the wage-earners, who, by incorporating growing human capital, see their wages grow.

Catching up

After World War II, and particularly after the integration of China into the global economy, an old forecast was confirmed: "catching up", or the attainment of the income levels of the rich countries by a growing number of developing countries, particularly by Asian countries. To understand this process of catching up we must distinguish the countries of *original* development from the *latecomers'* development. Countries of original development are those that achieved their primitive accumulation and their industrial revolution without having to face industrial or modern imperialism. Those countries include Britain, followed by France, Belgium, the Netherlands and the United States, and a little later Germany, Italy, the Scandinavian countries and three countries colonized by Britain besides the United States: Canada, Australia and New Zealand. All these countries initially adopted a developmental strategy in order to achieve their industrial revolutions. They include four countries that belonged to the British Empire because no mercantile slave exploitation was involved in their colonization, as happened in Latin American countries. In the North of the United States the colonial settlers reproduced the type of advanced society that existed in Britain, rather than organizing plantations to export tropical goods or devoting themselves to mining.[2]

Germany and the Scandinavian countries, whose development took place in the second half of the 19th century, are included in this category, although Alexander Gerschenkron (1962) identified them with "late development". He stressed that these countries resorted to a greater degree of state intervention because they needed to face the industrial imperialism of Britain and France, which tried to "kick away their ladder".[3] The economic development of rich countries has been studied by a great number of analysts, by economists such as Adam Smith, Karl Marx and Joseph Schumpeter, as well as by celebrated historians such as Fernand Braudel, Paul Bairoch and David Landes.

Japan was the first latecomer to confront industrial imperialism by undergoing achieving a nationalist revolution (the 1868 Meiji Restoration) and catching up. Three other Asian countries, South Korea, Taiwan and Singapore, followed, and are today rich countries. Brazil, Mexico and Turkey, which began their national revolutions before World War II, grew more modestly after 1980, and are today middle-income countries. The same is true of China, India, Malaysia, Indonesia and Thailand, but since they are growing faster than the Latin American middle-income countries and are clearly catching up, they are likely to reach the level of income of the rich countries relatively soon.

Developing countries have two advantages in competing with rich countries – cheap labor and the possibility of copying or buying technologies at relatively low cost. But these advantages are realized only when a people builds a nation and a state and undergoes its industrial revolution. After this major step – the

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capitalist revolution – for which there are no simple recipes, the country will be able to catch up. Besides taking care of supply-side problems, particularly education and investment in infrastructure, this country will need to neutralize the tendency to the cyclical and chronic overvaluation of the exchange rate that is present in developing countries. Such neutralization, to be achieved by an exchange rate policy, is a necessary condition for catching up, because it guarantees to the country's competent manufacturing firms, whether already existing or to be created in the future, the necessary *access* to demand – to the domestic and foreign markets. Under this condition, the country will be able to take advantage of the opportunity presented by globalization (the opening of markets since the last quarter of the 20th century) to export to rich countries manufactured goods with increasing technological content or value-added per capita, and to catch up.

Developmental state

The capitalist state was initially a developmental state. In the countries that industrialized first, this developmentalism took on the form of the mercantilist state. In the other backward countries, both those at the core of capitalism such as Germany or Italy and those on its periphery (periphery, because they had to face the imperialism of the countries that first achieved their industrial revolutions, such as Britain and France), such as Japan or Brazil, the state was explicitly a *developmental* state. These countries' national and industrial revolutions were conducted according to a developmental strategy.

If we take Britain and France as a reference for the countries that developed first, between 1830 and 1929, the state became liberal, substantially reducing its intervention in the economy. After many intermediary financial crises, which revealed the fragility of these liberal arrangements, this period of unregulated or laissez-faire capitalism ended with a huge financial crisis followed by the Great Depression. After it, in the context of a major effort to regulate capitalism, whose preeminent initiatives were the creation of central banks and the Bretton Woods agreement regulating international finance, the now democratic state once again became developmental and also became a *social* state: democratic, because, after the guarantee of civil rights, universal suffrage or political rights had been guaranteed since the turn to the 20th century;[4] developmental, because now, in the Golden Years of Capitalism, the state intervened moderately in the economy by regulating markets and by promoting development; and social, because it proved possible to reduce inequalities through progressive taxation and major social services providing for more efficient and more egalitarian collective consumption.

Within this framework, the strategic role falls both to the entrepreneurs, who invest and innovate, and to the state and its bureaucracy of politicians and senior civil servants, who are responsible for framing with society the required institutions, beginning with the most important one – the national development strategy. From this perspective, the *state* is the constitutional and legal system and the sovereign organization which guarantees it, including by the use of force;

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it is the institution of modern societies that guarantees human rights and legitimizes, or denies legitimacy to, other institutions; and it is civil society's as well the nation's instrument of collective action par excellence in the achievement of political goals.

In this respect, one of the roles of the state is to regulate the specific coordinating mechanism of capitalist economies – the market. There is no sense in the opposition that neoliberals posit between the state and the market. Instead, we must understand the historical relationships between the two institutions. In the early phases of economic development – in the process of the original accumulation of capital, the formation of the nation-state and the industrial revolution – the state is without exception a direct agent of economic development. In some cases, it has been virtually the sole agent, as in Russia and China in the mid-20th century, in the name of a socialist revolution, and in Japan in the early 20th century, in the name merely of a conservative catching up strategy. Once the industrial revolution is over, the state gradually withdraws from productive activities and transforms them into private business enterprises, except in the case of the monopolistic or quasi-monopolistic sector, in which it retains, or should retain, a leading role, given that the market is unable to coordinate the respective business enterprises.[5] This makes sense from an economic point of view because, in the competitive industries of the economy, the market performs the economic coordination of the factors of production more efficiently and offers more room for innovation than the state, whereas in monopolistic industries – in infrastructure and the basic input industries – the market is non-existent, and the logical alternative is partial state ownership and planning of investment. It is the role of the state to correct market failures, and to actively manage aggregate demand. The need to manage aggregate demand was demonstrated by Keynes when he criticized Say's Law in the first chapter of the *General Theory*. In developing countries, it falls to the state, additionally, to guarantee to competent business enterprises existing in the country *access* to demand, because they can confront the problem of the overvaluation of the exchange rate, which denies them access to both local and international markets. The definition of this tendency and the issue of how to neutralize it are the two main concerns of the new developmental school of thought and its developmental macroeconomics.

Development and "productive sophistication"

In defining economic growth I have been relating economic development to industrial revolution or to industrialization. Neoclassical economists reject this association. To them the market and, more specifically, the law of comparative advantage of international trade will take care of identifying those industries that the country will develop, or, in other words, how an economy "maximizes" the use of its productive resources by being governed by the market. As Gabriel Palma uses to say in an irreverent but apposite way, for these economists there is no difference between potato chips and microchips.

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We will not repeat here the entire reasoning developed by structuralist economists on this subject. The Singer–Prebisch theory, according to which commodity-exporting countries suffer from a structural tendency to the deterioration in the terms of trade, demonstrated that the "law of comparative advantage" makes no sense. It is mere abstract economic reasoning, rather than a law corroborated by countries' historical experience in their international trade relations. It is short-term reasoning that ignores changes in comparative advantage in the medium term, and is therefore more than useless – it is detrimental to understanding the process of economic development. We know from reading Friedrich List (1846), British economists used such law in a pathetic attempt to persuade the Germans not to industrialize…

Capital accumulation with the incorporation of technical progress causes economic growth because it increases the productivity of labor and allows wages and the population's living standards to increase. If in a given country we are able to identify the persistent presence of those four variables (capital accumulation, technical progress, productivity increase and improvement in average standards of living), we are in the presence of a process of economic development.

When we say that economic growth involves industrialization, we are saying that it involves the transfer of labor from low to high value-added per capita. But today, when the production of some services involves sophisticated technology and highly educated personnel, it is more appropriate to say that economic development involves "productive technological *sophistication*". This is not an original approach. It has been known for centuries. It was already known in the far-distant year of 1336, when the English king Edward III prohibited exports of raw wool; he wanted the production of wool to be completed by the production of fabric in order to increase the value added by English workers.

The increase in the productivity of labor and the increase in value added per capita are equivalent expressions. Why do they grow and economic development materializes? We may answer this question by using the elements of the definition of economic development: productivity increases because of capital accumulation and technical progress. This is a correct but incomplete answer. It tells us that productivity increases because business enterprises make investments which economize on labor. A second way for productivity to increase and save labor is through the *transfer* of labor from industries with low value added per capita, which use unsophisticated technology and pay low wages, to industries with high value added per capita, which pay higher wages. This second way to increase productivity is most likely the more effective of the two. For developing countries, which are not at the frontier of technological knowledge, the second way to increase productivity is obviously more relevant. Technical progress based on the transfer of labor to new goods and services (new, that is, for that national economy) usually contributes more to productivity increase than labor-saving investments in existing lines of production.

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A third way to explain the increase of productivity that is inherent in economic growth, which is consistent with the former explanations, is to see economic development as the process of increasing income per capita due to the increase of the *value* of wages and salaries. For sure, in the short and medium terms wages and salaries may grow less than productivity, but in the long term, after the country achieves the "Lewis point" and its supply of labor is no longer unlimited, wages and salaries will grow at the same rate as productivity. This happens essentially because the value of wages and salaries is increasing, because workers' cost of reproduction is increasing, because their level of education is rising and because their conception of a satisfactory standard of living is becoming more sophisticated.

In the process of economic growth the assumption is that technological progress is taking place and that it is endogenous to it. The pace of innovation is largely determined by the pace of capital accumulation, since most technological innovations are "incorporated" into recently produced machines and equipment. This approach was shared by all structuralist economists, particularly by Ragnar Nurkse and Celso Furtado. Nicholas Kaldor (1978) formalized this idea through his "technical progress function", which establishes the existence of a structural relationship between the rate of output growth per worker and the rate of capital growth per worker. According to Kaldor, it is impossible to distinguish the portion of productivity growth that results from the incorporation of new technologies from the portion that results from an increase in capital per worker. This is because most of the technological innovations that increase labor productivity demand the utilization of a greater volume of capital per worker as they are incorporated into new machines and equipment. In so far as this increased sophistication requires more educated personnel, the value of wages and salaries increases as economic development takes place.

Necessary and unnecessary distinctions

In the economic literature economic development and economic growth are normally used as synonyms. Yet, some economists distinguish economic development (which would involve structural change) from economic growth (which would not). I believe that, given the previous discussion, such a distinction makes little sense. The cases where there is growth of income per capita without structural change are the *exception* rather than the rule. The countries in which this distinction could possibly make sense are those that export oil and other minerals, and fail to neutralize their Dutch disease. But even these countries experience some structural change and some increase in standards of living. The fact that in its initial stage economic growth is often accompanied by income concentration and destruction of the natural environment shows that economic development or economic growth may, in the short run, be inimical to development without adjectives; it does not show that economic development hasn't taken place.

What makes sense is not the distinction between economic development and economic growth, but the distinction between economic growth (or economic

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development) on the one hand, and development or progress on the other. Economic growth may sometimes be unjust, may sometimes be offensive to nature; development by definition cannot, because for the achievement of development it is not enough to improve living standards; it is necessary also to observe some advance in the other four political objectives. It is true that the five objectives are not fully compatible; they often conflict. This is particularly true in relation to economic growth, which in the long term is a necessary condition for achieving the other objectives, but in the short term often conflicts with them. That is why *compromise* – the fundamental principle of politics – is inevitable.

Would it be possible to measure development or progress? I don't think so. Economic growth is usually measured by adopting the increase of income per capita as parameter, but even such measurement is often contested. What to say of measuring development without adjectives? Acknowledging the limitations of such a measure, the United Nations, with the participation of Amartya Sen, developed some time ago the concept of "human development", which measures progress by adopting two social parameters besides the growth of income per capita, namely life expectancy and education; but, as was predictable, given the close relationship between the three instances of society, the three variables proved to be closely correlated – what means that United Nations' index is not a real gauge of development or progress. More recently, in 2008, on the initiative of the French government, the Commission on the Measurement of Economic Performance and Social Progress (or the Stiglitz-Sen-Fitoussi Commission) was created. It presented its final report in the following year, but it did not arrive to operational conclusion.[6]

Conclusion

Armed with this definition of economic development or economic growth, let us return to its relation to development or progress – to the achievement of the five main political objectives that modernity has set for itself. I argued in this paper that the historical process of development began with the Enlightenment's idea of progress and the advancement of science, while the historical process of economic growth began with the industrial revolution and the advancement of technology, and was characterized by increasing living standards. Thus, both were the outcome of the capitalist revolution. After the first countries (Britain, France, Belgian), each other country that was able to modernize or complete its capitalist revolution also experience growth and progress.

I defined economic growth as the increase in standards of living caused by capital accumulation with the incorporation of technical progress, and development as the advance of modern societies toward its five self-defined political objectives: security, freedom, economic well-being, social justice and protection of the environment. Thus, we can distinguish forms of development: economic, political, social and environmental development. I argued that the first

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form of development, the economic, was the more strategic, but they are all interdependent, and it is impossible to say which is the most important.

In antiquity, philosophers and historians believed in long cycles of the growth and decline of civilizations, not in development. They had no good reason to think otherwise; science and technology were not progressing, standards of living were not improving. But they were aware that in periods of expansion of a given civilization the role of the economy was central. Bury (1920: I–1) observes that according to Thucydides, the ancient Greek historian, the key to the historical progress of civilization was "the increase of wealth".

In my definition of development I didn't include the achievement of *happiness*, because this is not a political objective – it is not something that can be achieved collectively. Happiness is a state of mind; it is contentment with ourselves that comes and goes incessantly throughout our lives. Researchers have being trying to measure happiness, but if it is difficult to measure economic growth, let alone progress, what to say of happiness? Yet one thing that emerges from such research is that poor people tend to be less happy or more unhappy, but once their basic needs are satisfied, happiness loses any relationship with economic development. This makes sense. Like personal realization, happiness is an individual achievement that requires certain basic material conditions to be met, but not great wealth. Such a finding supports the moral condemnation of consumerism, but, given the difficulty of distributing income evenly, much more economic development will be required to enable everyone to achieve the reasonable minimum of living conditions, and more moral progress will be required for men and women to change their values and discover other forms of personal realization than becoming wealthy and powerful.

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[1] I first proposed and analyzed the tendency to cyclical and chronic overvaluation of the exchange rate in Bresser-Pereira (2009); in Bresser-Pereira, Oreiro and Marconi (2014) forthcoming, we discuss the issue of access to demand.

[2] This distinction between colonization by settlement and colonization by mercantile slave exploitation, drawn in order to explain the backwardness of the countries that adopted the second type of colonization, was classically expounded by Caio Prado Jr. in the first three chapters of his *História Econômica do Brasil [Economic history of Brazil]* (1945).

[3] The expression "kick away the ladder" was originally used by Friedrich List (1846) to describe Britain's behavior when it tried to persuade the Germans not to industrialize, by using the arguments of the classical liberal economics. This argument has been resurrected with great competence and relevance by Ha-Joon Chang (2002) to describe rich countries' present behavior towards developing countries.

[4] The transition to democracy in the first developed countries took place at the turn of the 20th century, when the popular classes won universal suffrage. Some of these countries had completed their capitalist revolutions (the condition for consolidated democracy) almost a hundred years before, but liberal or bourgeois resistance to it eventually waned as it became increasingly clear that an elected socialist majority would not expropriate the rich. See Przeworski (1985) and Bresser-Pereira (2012).

[5] Japanese industrialization in the late 19th century was undertaken almost completely by the state; it was followed around 1910, however, by a fast and radical process of privatization. As for Russia and China, their revolutions, which pretended to be socialist, were in fact national and industrial revolutions; paradoxically, they were part of the capitalist revolution.

[6] Joseph Stiglitz, Amartya Sen and Jean-Paul Fitoussi. For the final report and on the debates on the day it was officially presented, see http://www.stiglitz-sen-fitoussi.fr.

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