

KEYWORDS

Economic policy
 Economic systems
 Structural adjustment
 Value
 Markets
 Prices
 Inflation
 Political aspects
 Economic aspects
 Economic dependence
 Neoliberalism
 Economic development
 Latin America

Latin American structuralism and economic theory

Armando Di Filippo

This essay suggests that there is a body of Latin American structuralist economic theory which possesses distinctive characteristics while having a family resemblance to other institutionalist schools of thought, and which is based on an original approach to economic value. The founders of structuralism conceived a systemic, multidimensional and dynamic approach. They applied it to the study of improvements in, and the social distribution of, labour productivity generated in the central economies and the effects of these on the societies of the periphery. This outlook challenges the notion of markets as self-regulating systems that return to stable equilibrium positions, presenting them rather as a quantitative expression of the national or international power status of contracting parties. Different development styles and processes progressively alter the power structure of social systems and these changes are reflected in the dynamic of relative market prices.

Armando Di Filippo
 Argentinean economist
 Professor at the Institute of
 International Studies,
 University of Chile, and at the
 Universidad Alberto Hurtado
 Adviser to the Executive Secretariat
 of ECLAC

✉ armando.difilippo@gmail.com

I

Latin American structuralism: economic theory and political economy

At the heart of any economic theory about the capitalist system is the study of economic values, the market and prices. These are the leitmotiv and central focus of this essay. The broader context for these reflections is the process of structural change that has developed in capitalist societies as a consequence of the successive technological revolutions which have expanded the productive power of human labour. Accordingly, the analysis carried out here does not deal with market prices under conditions of stable equilibrium, but with the changes in the structure of markets and prices that accompany development. This essay offers a reading of some pioneers of Latin American structuralist economics, and we believe that their key writings contain a theory of economic value, the market and prices that is radically different from the one established in academia.

Unlike static theories, which tend to isolate and “compartmentalize” the activities of the market in the formation of the price system, Latin American structuralist economics sets out from a systemic,¹ multidimensional and historically dynamic view of human societies.

To begin with, two basic limitations of this study need to be clarified.

First, it does not examine the institutional thinking of the Economic Commission for Latin America and the Caribbean (ECLAC). To avoid misunderstandings, this essay will distinguish between the idea of political economy and that of economic theory. We conceive of political economy as a discipline intended to

support the legislator and statesman (Smith, 2007, p. 275), while economic theory includes, first, a value-rich underlying approach and, second, the theory as such. It is a system of hypotheses about the behaviour of reality that can be verified with the help of the scientific method.²

This notion of political economy (which differs from that of the other classical economists and Marx, who make it a synonym for economic science) is very well suited to showing the kind of tasks that have to be performed by an intergovernmental body like ECLAC. For example, in his studies on the evolution of the institution’s thinking, Bielschowsky (1998 and 2009) refers to the action strategies and key ideas proposed to Latin American governments. According to Adam Smith’s characterization, this belongs to the realm of political economy and only tacitly or tangentially to structuralist economic theory.

Secondly, and for the same reasons, this paper does not analyse neo-structuralist thinking about economic values, markets and prices. As Bielschowsky (2009) observes in relation to the structuralist period of ECLAC thinking, “the texts published in the first 30 years studied in this article were mostly authored by the leading ECLAC intellectuals of that period, while those chosen to represent the institution’s thinking over the three most recent decades tend to be its official documents” (Bielschowsky, 2009, p. 172). These documents reveal an outlook heavily influenced by the political demands of member governments.³ Examining the personal theoretical contributions of the neo-structuralist authors is not an impossible task, but it is beyond the scope of the writer of this essay.

□ The opinions expressed in this paper are the exclusive responsibility of the author and commit no other person or institution.

¹ Following the Argentinean philosopher Mario Bunge, we understand by system any complex thing whose parts are bonded by various stable ties constituting its structure. A concrete system (as opposed to a theoretical system) exists objectively and has a physical basis, so that the central feature of any system of this kind is that it is in a permanent process of change. A given human society can be envisaged as an intrinsically dynamic concrete social system composed of individuals (or associations and organizations formed of individuals), with the ties that constitute its structure being the technical and social rules actually operating there (Bunge, 1998, p. 310-311).

² This essay will not examine the theoretical and epistemological links between Latin American structuralism and other institutionalist schools of thought. Osvaldo Sunkel (1989) is essential reading for those interested in comparing Latin American structuralism with United States institutionalism. See also Mallorquín (2006).

³ Thus, Bielschowsky goes on to say: “The neo-structuralist formulation made it possible to build bridges with those Latin American and Caribbean governments that had persevered with the reforms [a reference to “the liberalization guided by the Washington Consensus”], without abandoning the original structuralist analytical edifice,

II

Structuralist economic theory between two fires

Of the two great schools of economic thought in the twentieth century, one followed the marginalist and the other the Marxist-Ricardian theory of economic value. Against both of them and their orthodox and influential proponents arose a heterodoxy that would include many scientists from the United States institutionalist school and others imbued with the ideas of the Keynesian revolution. In the post-war period, decolonization and European reconstruction led to concern about development and underdevelopment. From different standpoints, all these currents of thought challenged academically established theories of economic value. Structuralist economic theory formed part of that heterodoxy.

The market and price theory of Latin American structuralism has been challenged from two sides. These challenges have come, on the one hand, from Marxist theorists and, on the other, from neoclassical marginalists arguing from the paradigm of perfect competition or, more broadly, from the static logic of marginal calculus applied to “free” markets. For Marxists, market prices are an expression of social labour embodied in the products traded (see box 1), while for neoclassical economists they are a manifestation of marginal utility and the scarcity of goods (see box 2). The approach taken by Latin American structuralism to economic value and the price formation process has never fitted neatly into either of these theoretical approaches.

III

A synthesis of structuralist market and price theory

The theoretical view of prices and the market in the Latin American structuralist school, sometimes implicit and sometimes explicit, is that at any given time the existence of the market reflects the power positions of social actors in relation to the different spheres of each society. Consequently, market prices can be understood as a measure of power positions and of the specific strategies and tactics of contracting parties, while the variations they undergo over time reveal the changes progressively arising in this situation. This thesis does not deny that prices also measure utility and scarcity, or that they are connected to the work

embodied in the goods traded, but what underlies these measurements is that, in the final analysis, the power positions and the strategies and tactics of contracting parties are still what determine prices. In the marketplace, power is calculated by units of purchasing power in general, i.e., monetary units divided by price indices. What is adopted here is the broadest conception of prices, encompassing those of production inputs, final goods and services and, above all, the primary factors of production, which constitute the remuneration for their owners. Also included, of course, is the price of money—both international exchange rates and interest rates set locally and internationally.⁴

while insisting on the urgent need to implement policies for radical social and economic change to overcome underdevelopment, going beyond the functioning of the free market. For some, this meant surrendering to neoliberalism, but for others it was an alternative that would make it possible to continue influencing the region's destinies from ECLAC's traditional theoretical and methodological perspective. A reading of the key texts published in the decades of 1990 and 2000 strengthen the latter interpretation” (Bielschowsky, 2009, p. 177).

⁴ Here we should recall the thinking of Polanyi (2001), who argues that natural resources, human labour and money cannot be included in an ordinary theory of markets since they are not by nature goods and are not produced as such. In this context, we might add that it is largely price formation for these basic factors that introduces the institutional conditions affecting the structure of the market and prices on the aggregate supply side. None of the prices for

Box 1

MARX'S THEORY OF VALUE AND ITS STRUCTURAL UNDERPINNINGS

The view of the social process upheld by Marx (1967) is evidently historical, structural and multidimensional and includes a core analysis of property institutions (production relationships). His theory of economic value is one-dimensional, however. Under conditions of stable equilibrium, prices equate to value, which for Marx is a measure of the working time that is socially necessary given the average technical conditions in a particular period. His theory of value is not designed to record the effects of major institutional changes directly, except when these affect average technical conditions. The stability of the equilibrium presupposed by this theory implicitly requires that all the factors (environmental, political and cultural) underlying this equilibrium be immobile. The theory of value adopted by Marx is a Ricardian transplant unconnected with the historical dialectic characterizing his overall view of society.

When Marx introduced his notion of production prices associated with the equalization of rates of profit in all markets (in volume III of *Capital*, published by Engels), he established the combination of a market-driven mechanism (intersectoral mobility of capital) and a valorization process that depends on the sphere of production. Since production prices are also abstractions, however, these are really values that, in Marx's sense, should not properly be called prices since they are not calculated as monetary units paid in specific markets (Di Filippo, 1981a and 1981b).

Production prices as conceived by Marx come under a logic similar to the classical concept of natural prices, implying a stable equilibrium towards which markets tend. For Adam Smith (2007, chapter 7), this framework of stability largely depends on the general conditions of society, while for Marx it is based in a more limited way on average technical conditions. Furthermore, Adam Smith, like Robert Malthus, understands the value of goods as the amount of human labour required to buy them and not the labour embodied in their production. Consequently, the former takes direct account of social market relationships in the very formulation of his theory of value. The idea of effective demand, introduced by Adam Smith himself, continued by Malthus and elaborated in depth by Keynes, assumes the involvement of the market in setting the value of goods. The concept of effective demand is the bridge whereby Latin American structuralism links the functional and personal distribution of income to the pricing of final goods.

Another fundamental difference between Marxism and Latin American structuralism lies in their philosophies of history. The starting point or ultimate cause of Marx's historical approach is the economic structure. This is the basic underpinning of the labour theory of value, which is assumed to be valid only under the average technical conditions and production (property) relationships of a given historical period. Against this background, cultural and political aspects are seen as superstructural epiphenomena of this central fact.

For the Latin American structuralists, on the other hand, as for the institutionalists, the cultural system is the central fact. Technical progress, which is now the basis of capitalist societies, originated as a manifestation of cultural creativity, an issue that has been examined in some depth by Celso Furtado and will be returned to later on.

Source: prepared by the author on the basis of K. Marx, *Capital*, New York, International Publishers, 1967; A. Di Filippo, "Desarrollo y desigualdad social en la América Latina", *Lecturas*, No. 44, Mexico City, Fondo de Cultura Económica, 1981 and "La tesis del excedente y la realización de la plusvalía en Marx" (appendix citing authorship), *Capitalismo periférico: crisis y transformación*, R. Prebisch, Mexico City, Fondo de Cultura Económica, 1981; and A. Smith, *The Wealth of Nations*, Petersfield, Harriman House, 2007.

Box 2

THE EPISTEMOLOGICAL FOUNDATIONS OF NEOCLASSICAL THEORIES OF VALUE AND GROWTH

It is necessary to make the same distinction here as was touched upon at the beginning of this article between economic theory (and the preanalytical cognitive outlook associated with it) and political economy. The theoretical outlook of neoclassical economics gives a central place to the dogma of self-regulating markets, which means that neoclassical economic theory is based essentially on microeconomic logic and assumes a long-run macroeconomy and full employment, ignoring the issue of effective demand. Neoclassical political economy as applied to globalized capitalism is what this essay will call neoliberalism, of which the criteria and principles of the Washington Consensus are an example. Consequently, not all the excesses of neoliberalism ought to be attributed to the neoclassical theoretical outlook.

It must be realized that political economy in the Smithian sense was meant for statesmen in a national economy, but the neoclassical political economy we here call “neoliberalism” was a specific strategy of transnational firms that tried (for a time successfully) to change the ground rules of the global economy (Washington Consensus) to favour their microeconomic policies. Lastly, as we shall see further on, some neoclassical economists use the term “new political economy” in a manner wholly incompatible with what this essay understands by political economy.

Marginal analysis, developed by Marshall for a partial equilibrium approach and by Walras for general equilibrium, was heavily based on mathematical formalization using differential and integral calculus. Thus, taking an epistemological approach and following the fathers of classical mechanics of the late eighteenth century, the early neoclassical economists sought to establish the natural laws of economics. Marginal analysis was a crucial instrument for the original neoclassical formulations relating to theories of consumption and production, to determine the stable equilibrium points of microeconomic markets and uphold their theories of functional income distribution based on equality of marginal productivity and factor remuneration. Personal income distribution and the concept of the subsistence wage have always been excluded from core neoclassical economic theory.

Unlike the classical economists and Marx, whose basic economic categories were tied to historically identifiable actors (rentier landowners, wage workers, industrial entrepreneurs, etc.), neoclassical theory completely depersonalized economic categories and turned them into abstract, ahistorical variables.

Subsequently, however, and especially since the end of the Second World War, undeniable historical evidence has been brought to light in the most widely circulated neoclassical academic texts. Both game theory and existing studies of imperfect markets (monopoly, oligopoly, monopolistic competition) entailed a limited but explicit recognition of the power asymmetries affecting market prices. These theories and studies were incorporated into the reference works most commonly employed in Western academia.

Academic centres gradually consolidated a “conservative institutionalism” or “new neoclassical institutionalism” that was invariably based on defence of the market and private property as basic microeconomic underpinnings of the social order (Von Hayek, Nozick and North, among others) but that abandoned or at least softened the concern with retaining the premises of welfare and perfect competition theory. The frictions arising in markets with imperfect information were recognized, with acceptance for example of externalities and transaction costs (Ronald Coase, Kenneth Arrow, Douglass North, Oliver Williamson, Stiglitz and others).

What is now known as “new neoclassical economics” is not political economy in the sense accepted by the present essay but is in fact an expanded and enhanced version of neoclassical economic theory as relating to the different forms of micro-rationality (rational choice) and its effects in the economic, political and cultural spheres. The only difference is that some members of this school have tried to “export” it to other social disciplines. For example, Olson (1965) considered the problem of the “free rider” and introduced the idea of targeted regulation, based on rewards or punishments, to confer social rationality on this behaviour. Becker (1964) tried to extend the principles of instrumental or strategic rationality to the sphere of interpersonal, family and amorous relationships, among other things.

The neoclassical economists also recognized and allowed for the role of the State in the sphere of regulation and the role of government in that of public policies (fiscal, monetary and so on) under the influence of the Keynesian revolution, but effective demand theory continued to be relegated to the short term and to the study of economic cycles.

By introducing an essentially logical or theoretical notion of time, meanwhile, they defined the “long run” as the stage in economic growth processes where full employment and self-regulating markets operate (dynamic of potential equilibrium output). This brings us on to the evolution of neoclassical economic growth theory.

(Continues overleaf)

Box 2 (concluded)

In 1956, as a first polemical response to the neo-Keynesian views of growth theory that had originated in Cambridge, United Kingdom, Solow prepared an alternative theoretical proposal based on the main premises of neoclassical theory: a static approach rooted in perfect competition, remuneration of primary factors in accordance with their marginal productivity, a tendency for the model to reach stable equilibrium positions, production functions based on factor substitution, etc. In particular, technical progress, absent from the original foundations of neoclassical theory, was treated by Solow as an exogenous variable affecting overall productivity. For his purposes he used a macroeconomic production function of decreasing returns to each production factor and constant returns to scale for the whole group. In this way he was able to preserve the characteristic distribution theory of this school, which links factor remuneration to the relevant marginal productivity under conditions of perfect competition.

From the standpoint of price theory, neoclassical growth theory, in Solow's version, simply ignores the problem. In his Prize Lecture after receiving the Nobel Prize for Economics, he observed: "The idea is to imagine that the economy is populated by a single immortal consumer, or a number of identical immortal consumers. (...) [S]he, or the dynasty, is supposed to solve an infinite-time utility-maximization problem. (...) [A]ny kind of market failure is ruled out from the beginning, by assumption. There are no strategic complementarities, no coordination failures, no prisoners' dilemmas. (...) Inseparable from this habit of thought is the automatic presumption that observed paths are equilibrium paths. So we are asked to regard the construction I have just described as a model of the actual capitalist world" (Solow, 1988).

Once again, as in the post-war period, the historical evidence made this neoclassical theory of growth unsustainable, leading to the recognition of new theoretical premises. Following on from the original neoclassical theory, what then began to gain ground was the idea of endogenous growth, led by Romer (1986 and 1990) and Lucas (1988).

Endogenous growth theory abandons the notion of constant returns to scale and accepts that of growing returns to scale for all production factors represented in the production function. Economies of scale were widely recognized in earlier economic thought; ECLAC, for example, had used the concept in the 1960s to advocate Latin American integration with a view to stimulating industrial development.

From this new perspective, Grossman and Helpman (1991) suggested that the unpatentable basic technological knowledge which was one of the general products of science manifested itself on the one hand as a public good (technical standards or instructions are not exhausted by use but remain available for others) and on the other as a private good via research and development (R&D). This entails huge fixed costs that can only be recovered by operating on the scale of major transnational corporations in global markets.

Neoclassical theory was thus modified from its original Walrasian and Marshallian premises as a result of three interdependent historical factors. First, there was the recognition of the asymmetries of economic power that arise between firms interacting in "imperfect" markets (monopoly, oligopoly, monopolistic competition and the use of game theory). Second, there was the emergence of information and communication technologies (ICTs), which have provided the principal historical examples of increasing returns to scale in knowledge production under conditions of technological monopoly—one need only think of Microsoft and the successive versions of the Windows software. Third, there is the huge influence of lobbying by transnational corporations to institutionalize their positions of power by designing new ground rules for global capitalism (World Trade Organization, International Monetary Fund), particularly since the so-called Washington Consensus.

Endogenous growth theory, expressed in the use of production functions, has not yielded good empirical estimates. The alternatives explored, like adding, redefining or removing variables in aggregate production functions, have not been successful. For example, the data available have not borne out the specific prediction of relative or absolute convergence of living standards proposed, or assumed, in the early neoclassical approaches. Estimates are becoming ever more devoid of theory, while the "theories" are becoming increasingly disconnected from the information handled (Martin and Sunley, 1998).

Source: prepared by the author on the basis of M. Olson, *The Logic of Collective Action*, Cambridge, Massachusetts, Harvard University Press, 1965; G. Becker, *Human Capital*, New York, Columbia University Press, 1964; R. Solow, "Growth theory and after", *American Economic Review*, vol. 78, No. 3, Nashville, Tennessee, American Economic Association, 1988; J. Katz, "Structural reforms, productivity and technological change in Latin America", *Libros de la CEPAL* series, No. 64 (LC/G.2129-P), Santiago, Chile. United Nations publication, Sales No. E.01.II.G.22, 2001; P. Romer, "Endogenous technological change", *Journal of Political Economy*, vol. 98, No. 5, Chicago, University of Chicago Press, 1990, and "Increasing returns and long run growth", *Journal of Political Economy*, vol. 94, No. 5, Chicago, University of Chicago Press, 1986; and R. Lucas, "On the mechanics of economic development", *Journal of Monetary Economics*, No. 22, Amsterdam, Elsevier, 1988.

In the more specifically distributive sphere, the structuralists consider three basic structural influences. First, they associate functional income distribution with the institutional and industrial power status of those who own the primary factors of production (the notion of distribution surplus that we touch on later comes into play here), and secondly, they include personal or family income distribution, derived from the above, which directly affects the composition of aggregate demand for consumer goods and personal saving and investment behaviour.⁵ In the third place, they stress the role of the State as the “maker of official rules” and that of the government (conceptually different from the State) as a strategic economic actor in advanced capitalist societies. In particular, the original distribution of income is modified in the short term by the redistributive effects of fiscal policy (on both the tax and spending sides). In the long run, government actions affect the distribution of fundamental public goods such as health care, education and justice.

Where values, markets and prices are concerned, the most distinctive theoretical feature of Latin American structuralism is its multidimensional character. The power positions that directly or indirectly affect prices and the market are the places occupied by actors (individuals or groupings) in the economic,

political, biológico-environmental and cultural structure of human societies. The economic structure determines the situation of individuals in production and ownership regimes, and the political structure determines the place occupied by actors (including the government itself) in the regimes that regulate citizens’ rights, freedoms and obligations, including access to the legislative, executive and judicial powers of the State. The biológico-environmental structure, meanwhile, establishes the situation of actors in the regimes that regulate access to the “natural biophysical environment and its successive artificial transformations, as likewise its spatial extent” (Sunkel, 1980), while the cultural structure determines the place occupied by actors in the regimes that regulate information, communication and knowledge systems. However, there are also informal structures that fix the type of symbols or codes used, starting with language, and the kind of values, be they substantive (ultimate goals such as truth, good, beauty and justice) or instrumental (utility, effectiveness, efficiency), that legitimize social behaviour and delimit the mechanisms whereby cultural stratifications are produced.

The power thus held by individuals and organizations is considered to be institutionalized or structured if it is incorporated into the reciprocal expectations of normal conduct in social interactions, obviously including market transactions. These structural positions, which we have characterized schematically, set all kinds of limits to the exercise of human freedom and ultimately determine both the quantity of labour and the utility and scarcity of the goods traded.⁶

The concept of institutionalized (or structured) power can be used to overcome or transcend the holism-individualism dilemma underlying many epistemological debates. According to the holistic outlook, human behaviour largely depends on social structures, while from an individualistic perspective it is actors or agents (natural or legal persons) who determine the dynamic of historical change by their decisions and behaviour. Considered from one side only, the first approach may lead to deterministic

these strategic factors derives from a specific production process; they are generated rather by the structural conditions that sustain the power of actors, alterations to these or changes in the power tactics and strategies adopted. From the standpoint of demand, furthermore, there are also structural situations, strategies and tactics that determine the transition from functional distribution to family or personal distribution of income.

⁵ For those who like graphic representations, the position and slope of the demand curve in the chart of coordinates for any consumption good will depend directly on the level of incomes and on their personal and family distribution. It is enough to know the consumption basket of each income stratum to make an approximate calculation of the number of people who will be able to afford a particular good as its price falls. When we examine movements along the demand curve as a consequence of shifts in the supply curve or function, we find that when the price of a particular good falls (downward shift in the supply curve), this good comes to form part of the composition of spending by the lower income strata and demand for it increases, whereas when prices rise for the good concerned (upward shift in the supply function), the opposite happens. Thus, from the demand perspective both the utility and the scarcity of goods depend on the purchasing power of those creating the demand for them. Seen in this graphic way, changes in personal income distribution entail a shift in the demand function. Lastly, the composition of aggregate demand as a whole largely depends on the level and distribution of personal and family income. In this case too, changes in the distribution entail an alteration in the composition of aggregate demand.

⁶ In the ECLAC tradition, the multidimensional idea of power and institutions derives substantially from the work of José Medina Echavarría (1963 and 1973). The so-called Latin American school of development (Di Filippo, 2007), whose economic facet is expressed in Latin American structuralism, has its firmest basis in Medina’s studies.

conclusions and the second to voluntaristic ones, but neither of the two exhausts the scope for analysis of a social system. Consequently, in an exhaustive application of the systemic view of human societies it is necessary to pass from the actors to the power structure and then from the power structure to the actors (Bunge, 1998).

This systemic incorporation of the concept of power into explanations of market mechanisms is reminiscent of the conditions Thomas Kuhn (1969) sees as necessary for the structure of scientific revolutions when new, emerging theories expand the worldview of existing theories and incorporate them into a new explanatory paradigm.

IV

Philosophical underpinnings of the structuralist outlook: creativity, development and power

The concept of creativity, understood as the use of human freedom to intervene in the usual order of human social processes and irreversibly recreate them, is at the root of the structuralist view of the economy and was developed in particular depth by Celso Furtado (1978).

Aristotle anticipated the impact of technology on the structure of human societies over two millennia ago. Information and communication technologies (ICTs) seem to have begun to turn his predictions into reality: “For if every instrument could accomplish its own work, obeying or anticipating the will of others, like the statues of Daedalus, or the tripods of Hephaestus, which, says the poet, ‘of their own accord entered the assembly of the Gods’; if, in like manner, the shuttle would weave and the plectrum touch the lyre without a hand to guide them, chief workmen would not want servants, nor masters slaves” (Aristotle, 2009, p. 15).⁷

The importance of technical progress and the way it ties in with the social structure is quite well summarized in this “prophetic” passage, which is particularly applicable to the current advent of ICTs.

The most direct connection between Aristotle’s epistemological outlook and that of the Latin American structuralist school is identified by Furtado himself as he delves into the depths of Aristotle’s causal approach.

Furtado says: “The concepts of *structure* (form) and *process* (causality) are fundamental ingredients in cognitive work. Our view of the world is underpinned by them. The structural approach reduces the cognitive horizon because it remains on the plane of morphological description and excludes the notion of causality. At the same time, the analytical approach leads to a localized determinism and conceals the qualitative aspect. Aristotle sought to integrate these two concepts using the principle of *finality*. The methodology of the social sciences has sought to attain this integration using the notion of *creativity*, understood as the human faculty of interfering with causal determinism and enriching any social process with new elements. When some degree of preponderance is attained, or when the action of several of these elements converges, innovative acts lead to structural discontinuity. The innovative faculty (creativity), for which there is ample evidence on the sociological plane, thus acquires a status on the logical plane” (Furtado, 1978).

It is worth clarifying the links between this paragraph of Furtado’s and the famous four causes (or four explanations) of Aristotelian epistemology to which it implicitly refers. For Aristotle, what Furtado calls structure is associated with the idea of form or formal cause. In turn, the notion of process, as used by contemporary science in the realm of physics and nature, corresponds to the concept of efficient cause understood as the dynamic that generates and transforms structure. According to Furtado, when this process takes place in the social sphere and also entails a structural change (a “trans-formation” or modification of the Aristotelian form), its origin is to be sought in human creativity. The idea of creativity

⁷ Daedalus was a legendary artist, architect and inventor. Hephaestus was the blacksmith and craftsman god par excellence, creating extraordinary work such as Achilles’ shield. The tripods he made ran on self-propelling wheels.

tied to human freedom here replaces the idea of final cause which was fundamental to Aristotle's teleology. Again, what Furtado terms an analytical approach leading to a localized determinism concerns the components of the structure, considered statically and in isolation, and comes close to the analysis and decomposition of matter (the material cause, in Aristotelian language). However, this concept does allow for change, understood as a transition from potential (what the material can become) to the act (when the material becomes in reality what it only was potentially), while localized determinism does not necessarily incorporate this dynamic outlook (Bunge, 1961, pp. 44 and 45).

The static notion of equality of conditions (*ceteribus paribus*) characteristic of the method of neoclassical microeconomics, which still dominates Western economic thinking, is one of the most prototypical examples of the analytical approach leading to the localized determinism to which Furtado critically refers. These considerations serve to highlight the limiting, one-dimensional character of this analytical perspective.

Furtado's concept of creativity chimes with the "Aristotelian prophesy" that, if the progress of technology allowed it, "the shuttle would weave and the plectrum touch the lyre without a hand to guide them, chief workmen would not want servants, nor masters slaves". Without a doubt, technical progress, which Furtado sees as one of the two ways whereby human creativity is realized, has been the great transformer of the causal process underpinning social structures and has gradually been approaching (now more than ever with ICTs) that vision formulated over 2,000 years ago by the illustrious Greek philosopher.

The relationship established by Furtado between the concepts of creativity and development is summarized in the following words: "In its twofold aspect as a force that generates a new surplus and an impulse that creates new cultural values, this process,

by liberating human energies, constitutes the ultimate source of what we understand by development. The marvellous array of cultures that have arisen upon the earth bears witness to the astonishing inventive potential of mankind. If we know anything about the process of cultural creativity, it is precisely that man's potential is bottomless" (Furtado, 1978, my italics).

Thus, Furtado goes back to Aristotle to introduce his own philosophical concept of creativity, in which the Aristotelian "final cause" is no longer dictated by the nature of things but by the (creative) use of human freedom. In other words, technical progress as it operates in today's world is the great dynamizer of capitalist societies. For better or for worse, it is also a phenomenon whose ultimate cultural roots lie within Western civilization.

The most important feature of this creative process is the ability to confer power upon those who control it scientifically, in the contemporary sense of the word "science" as derived from the tradition established by Galileo, Newton and Bacon, among others.

Furtado goes on: "The intention signalled by Marx in one of his theses about Feuerbach – the philosophers have interpreted the world, now the time has come to transform it – has been abundantly accomplished. The *demarcation* line between what is and is not science, in Popper's happy expression, is laid down by the testing to which theories are subjected. Knowledge has tended increasingly to be of the type that enhances our ability to foresee, to act. The fabulous wealth of resources now *invested* in science and its applications is justified by that *effectiveness*. And the central goal of this is, *hélas*, military power and accumulation" (Furtado, 1978).

This linkage between cultural power, technological power, military power and economic power is the foundation of the centre-periphery outlook of structuralist economic theory as applied to the evolution of the capitalist system and its specific peripheral characteristics.

V

The epistemological foundations of Latin American structuralist economics

The concept of a system, on the one hand, and the idea of power, on the other, form part of the theoretical approach to development that gave rise to Latin American structuralism and underlie its theoretical understanding of economic value, prices and the market. While this systemic language and the idea of power it incorporates are present, implicitly or explicitly, in all the formulations of this school, it is brought out more clearly in certain studies (Furtado, 1965; Pinto, 1968; Sunkel, 1970; Sunkel and Paz, 1970; Prebisch, 1981; Di Filippo, 1981a).

This systemic approach went beyond the bounds of economic theory and required a multidimensional study that could link strictly economic issues with those pertaining to other areas of human society, such as sociocultural, political and environmental considerations (Bunge, 1997 and 1998; Di Filippo, 2007).

Latin American structuralist theory highlights the importance of changes in technical rules embodied in instruments and personified in human qualifications. Structuralism takes as its subject not the average technical conditions in a given period but rather the local and international institutional effects of technological change imported from the centre.

The technical rules operating in today's economy allow human beings and their organizations to relate to the instruments of consumption and production through specific qualifications that form part of the cultural sphere, while current social rules link human beings and their organizations with one another through transactions effected from institutionalized positions of power.

The idea of structures essentially concerns the stability of the technical or institutional rules internalized by actors (be they individuals or organizations), while the idea of structural change is historically dynamic and refers to the modification of rules or their internalization.

The issue of technology is more difficult for structuralists⁸ than for the institutionalists of the

developed world, since technological change was not generated internally in Latin America but came from the centre along with the institutions and organizations imported as a result of it. When these external effects are reformulated or reconfigured, the result is specific heterogeneities, dependencies and vulnerabilities that are the central theme of structuralist economic theory.

After the end of the Second World War, the reconstruction of Europe and the decolonization process, a debate about the nature and causes of development and underdevelopment began. Major contributions were then made in the field of development economics, including Latin American structuralism.⁹

The centre-periphery outlook of structuralist theory combined two interwoven systemic outlooks: that of the international economic system and that of national economic systems. By emphasizing the asymmetrical character of technical progress arriving from the centre and the concentrated distribution of its benefits, it opened up a field of theory whose analyses centred on the concepts of system and asymmetrical positions of power.

process is systemic in character. The answer might be that its focus of interest is on historical change in structures within systems like capitalism and democracy that are transhistorical in nature. The economic development process studied by this school is the dynamic of global capitalism and the type of interdependent interactions that take place between two economic subsystems: central capitalism and peripheral capitalism.

⁹ Ragnar Nurkse, Rosenstein Rodan, Gunnar Myrdal and Arthur Lewis, among others, did important work as interpreters of development and underdevelopment. Other scholars such as Simón Kuznets, Colin Clark, Wasily Leontief and Hollis Chenery contributed sound methodologies and empirical foundations to the approaches mentioned. Many of these authors influenced, or interacted with, the founders of the Latin American structuralist tradition. These lines of inquiry should strictly be termed economic theories of development and underdevelopment, and one of them is the Latin American school of development based on the seminal contribution of Latin American structuralism. Most of the major contributions of these thinkers, such as the idea of forwards and backwards production linkages and cumulative circular causes, have little in common with the idea of perfect competition and the supposed tendency for the market to self-regulate towards positions of stable equilibrium. As will be seen later, so-called economic growth theory, particularly in its neoclassical form, has been gradually distancing itself from the original overarching theoretical interpretations of development economics. See Nixson (2006), among others.

⁸ It may be asked why this school should be called "structuralist" and not "systemist", given that its overall reading of the social

The structuralist theory of development and underdevelopment is more comprehensible and empirically more fruitful because it uses an intersectoral relationship approach, something that has been contributed to, from different theoretical standpoints, by authors of the stature of Marx, Sraffa, Leontief, Chenery and Passinetti, among others.

With the vogue of neoclassical growth theories (see box 2), the subject of intersectoral relationships was abandoned just when the influence of Keynesian economics was weakening (Los, 2001).¹⁰

The systemic approach in economics, clearly adopted by Latin American structuralism in its 1960s and 1970s versions, led to formalizations based on matrix algebra and on the definition of structural¹¹ input-output relationships and coefficients. These conceptual tools were vital for the ECLAC contribution to the study of national accounts and for Latin American growth projections (Balboa, 1961). The first elementary economics manual prepared by the institution and the Latin American Institute for Economic and Social Planning (ILPES) to provide Latin American students with a structuralism-oriented training was also based on a systemic reading of the economic process that gave pride of place to qualitative and institutional analysis of intersectoral relationships (Castro and Lessa, 1973). In this way, conceptual and theoretical frameworks that were systemic in character prepared the ground for the study of structural change required to understand development and underdevelopment processes.

¹⁰ This agrees with a recent study that notes: "Since the mid-1980s, input-output (IO) analyses have been excluded from the leading currents of economic thought. Periodical publications like *Econometrica*, *Review of Economics and Statistics* and *Quarterly Journal of Economics* ceased to publish IO studies, while few leading economists seem to show any interest in progress within the field of IO analysis." In that essay, the author quoted explores the links between the idea of endogenous growth and structural change in a dynamic input-output model (Los, 2001, introduction, paragraph 1).

¹¹ We use the idea of structural coefficients rather than technical coefficients because matrices need to be expressed in units of value if they are to provide a quantitative representation of an economic system. Chenery, quoting Klein, says: "A further question arises as to whether the input coefficients in the Leontief system should be interpreted as physical constants, as Leontief does, or as value ratios which combine the effects of both changes in relative prices and in quantities. Klein (1953, pp. 205-210) has suggested that the latter interpretation is more in keeping with economic theory and that there may be greater stability in value ratios than in physical input-output ratios, reflecting an elasticity of substitution between inputs close to unity" (Chenery and Clark, 1959). This idea agrees with the hypothesis of the present paper that prices express positions of power, in respect both of production (with a technological basis) and institutions (markets where there is monopolistic competition, for example).

In a broader and more abstract sense, the first text prepared at ECLAC and ILPES on underdevelopment in Latin America and development theory also adopted a clearly systemic approach to the subject (Sunkel and Paz, 1970). A system can be represented, whether quantitatively or qualitatively, in matricial language. In the matrix of a system it is possible to distinguish the actors who dynamize it, the structures that define it, the spheres or spaces occupied by the system (with an "inside" and an "outside") and the mechanisms used by actors to implement their strategies within the framework of these structures.

In particular, matricial input-output language can be used to establish a consistent and fluid relationship between Keynesian effective demand theory and the study of structures specific to underdeveloped or peripheral regions, as well as the structuralist theory of economic power positions implicit in the study of markets. In effect, the composition of aggregate demand, in both the short and the long run, depends on income distribution, which in turn depends on the positions of power (in production and institutions) of the contracting parties in factor, input and product markets. In Latin America, the concentrated distribution of exogenously generated technical progress translates into a situation of structural heterogeneity. In today's global capitalism, the repositories of this technical progress are, to a large extent, transnational enterprises.

The input-output logic serves, by contrast with today's neoclassical theory (see box 2), to highlight the fact that growth is "endogenous" to major firms, but not necessarily to small and medium-sized enterprises in the peripheral societies where they operate. The saving and investment process largely depends on major corporations, which may be from the centres or the peripheries themselves (Latin American business groups that have transnationalized, for example). In consequence, the accumulation process is overdependent on the microeconomic considerations arising from private-sector corporate planning interests.

In summary, the intersectoral analysis associated with matricial input-output logic can be used to describe and interpret the structural conditions of the Latin American economy. Unfortunately, matrices are hardly produced any longer in Latin America. Nonetheless, some efforts have been made to restore this approach (Infante and Sunkel, 2009).¹²

¹² "The heterogeneity of the Chilean economy is clearly revealed when we examine the different productivity levels of the various production strata, the types of intersectoral relationships, the value added generated and primary income distribution, together with the contribution of each production stratum to the dynamic of the economic structure" (Infante and Sunkel, 2009, p. 137).

VI

The concept of surplus in structuralist economic theory

Anthropologists and economists have used the concept of surplus to interpret changes of historical epoch. The transition from primitive societies to the earliest urban civilizations of the ancient world was due to the introduction of agricultural technologies that created a food surplus.

Marx's concept of the development of productive forces highlights the critical importance of the successive technological revolutions and the appropriation of surpluses by the dominant social classes that have accompanied the growth of civilization. His historical idea of surplus differs, however, from his theoretical idea of surplus value.

In his theory of value, Marx freezes the historical notion of productive forces and surplus and formulates the idea of surplus value associated with the labour theory of value and his law of value, under conditions of stable equilibrium within a particular period. This idea of surplus, as applied to the capitalist system, could be termed the exploitation surplus if measured in abstract units of labour (surplus value) or, more neutrally, distribution surplus when measured in units of general purchasing power (i.e., nominal income flows divided by the price index for a subsistence consumption basket). The distribution surplus concept coincides with the structuralist approach, but structural heterogeneity (a characteristic feature of Latin American underdevelopment) invalidates the idea of average technical conditions on which Marx's theory is based.

Rather than centring their theories of value on a particular structural situation defined by average technical conditions, structuralists are concerned with the structural change associated with the development process. This notion of surplus due to structural change could be termed the innovation surplus or development surplus and is a direct

product of human creativity in the sense proposed in the previous section. Economists generally use the term "productivity gains", while Prebisch spoke of the fruits of technical progress.

In Marx, the exploitation surplus (surplus value) assumes that productive forces have reached a given level of development and describes an appropriation mechanism compatible with his labour theory of value. Conversely, the innovation or development surplus idea formulated by the structuralists naturally assumes positions of power or dominance that are precisely the "social substance" measured by prices, but they conceive this surplus as the historical expression of productive forces in action. This is a new flow, measured in units of historical time, that is added to the distribution surplus already accumulated.

An innovation surplus arises from the distribution of productivity gains between the labour force that helped to generate it and the other agents in the production process. This distribution of productivity gains or the fruits of technical progress is one of the distributive struggles inherent in the dynamic of capitalism, whether peripheral or central.

The innovation surplus is measured on a macroeconomic scale and requires a calculation in units of power (general purchasing power) both of productivity gains and of their social distribution. This raises methodological and econometric challenges that have been neglected by structuralist economists, who are more comfortable with theoretical reflection than detailed measurement. There is no room in this paper to speculate about the primary appropriation mechanisms whereby this surplus accrues to firms, in a macroeconomic process that was studied both by Furtado (1964) and by Prebisch (1981, pp. 107-124), so we have confined ourselves to describing the essential substance of the concept in its structuralist version.

VII

The concepts of power and surplus in the dynamic of the market

The concept of power is omnipresent in structuralist theories of development. Reflecting on the links between the idea of the nation State and the structuralist conception of development, Sunkel is unequivocal: "At the same time, this way of understanding development lays the stress on action, on the instruments of political power and on power structures themselves; and it is these, ultimately, that explain the orientation, effectiveness, strength and nature of the internal and external social manipulation of culture, productive resources, technology and socio-political groups" (Sunkel and Paz, 1970, p. 38).

The political power of the State sets the ground rules for all power structures in every area. Consequently, the concept of institutionalized power is not just a matter for political science to study. The ground rules of the political system also determine the political, economic, cultural and even biológico-environmental power positions of individuals. From a systemic standpoint, furthermore, the intrinsic mechanism of the exercise of power includes another two interrelated concepts: human needs and situations of dependency.

The concepts of need and dependency are not understood in a purely economic sense either, but are approached in a multidimensional fashion. Situations of need and dependency can also be encountered in political, cultural and biológico-environmental subsystems.

We suggest that at the heart of the structuralist concept of a distribution surplus, in relation to a given structural situation, stand the relationships between needs, situations of dependency and positions of power. To capture these and their distributive effects it is necessary to study the specific mechanisms of historically existing markets, and this examination cannot be confined to the production structure. An illustrious philosophical precedent for this conceptual linkage can be sought in the Aristotelian idea that the interdependence of human needs is the essential bond of social life and the basis for all economic transactions, which require money as a measure of the terms of trade. In turn, Aristotle conceives of money not in relation to its form as merchandise (gold,

silver, etc.) but directly as an institutional expression deriving from the existence of political society (polis or State). Thus, the Aristotelian approach to economics is clearly institutional.¹³

The rate of surplus value and the Marxist concept of exploitation have no direct relationship to the scale of the needs experienced by people or their degree of dependency upon those who hold economic power (owners of the power of production). Thus, in an automated firm with the highest level of productivity, the rate of surplus value (in Marx's sense) "extracted" from a highly qualified engineer may be very great. However, this "exploitation" will be compatible with an excellent standard of living for him and his family and an institutional context that allows him to terminate his contractual relationship without serious consequences. Alternatively, the rate of surplus value for an illiterate peasant may be much lower in terms of abstract working time, but could entail a situation of extreme need and dependency in a context of structured domination mechanisms.

In his book *Criatividade e dependência*, Furtado makes the following point: "Market operations are, as a rule, *transactions between agents of unequal power*. In effect, the reason why trade – an expression of the division of labour – exists in the first place is to create a surplus, the appropriation of which is not based on any natural law. The 'imperfect' markets discussed by economists are nothing more than a euphemism to describe the ex post result of *the imposition of the will of particular agents upon this appropriation*. Since

¹³ This claim is reinforced if we remember that for Aristotle virtues are habits of behaviour and that human needs arise on a daily or periodic basis, requiring habits of individual and social behaviour (operative institutions) conducive to their satisfaction. "There must, therefore, be (as was said above) one standard by which all commodities are measured. This standard is in fact demand, which holds everything together (for if people had no needs, or needs on a different scale, there could be no exchange, or else it must be on different lines); but by a convention demand has come to be represented by money. This is why money (*nomisma*) is so called, because it exists not by nature but by custom, and it is in our power to change its value or render it useless" (Aristotle, 2003, pp. 125-126).

all markets are ‘imperfect’ in one way or another, trading activities will necessarily engender *a process of concentration of wealth and power*, whence the structural tendency, observed from the beginnings of industrial capitalism, towards the formation of large enterprises. Many observers will wrongly infer from this that small firms tend to disappear, but experience shows that they are irreplaceable in the exercise of important functions: without small firms, the capitalist system would be very much the loser, in terms not only of flexibility but also of enterprise and inventiveness” (Furtado, 1978, my italics).

Conveniently for a short essay like this one, the above paragraph provides a useful summary of two very important ideas in the development-underdevelopment diagnosis implicit in structuralist thinking. The first is that of the distribution surplus, as distinct from the idea of the innovation surplus (which is not considered here), and the second is the issue of structural heterogeneity in economic systems, which acquires critical importance in peripheral forms of capitalism.

Let us examine the situation of a small firm that coexists and competes with a large one. This obviously implies the presence of profoundly asymmetrical market structures, which predominate in most economic sectors. It also implies a technological heterogeneity that is obscured to some degree both by the concept of average technical conditions in a given period, assumed in Marx’s theory of value, and by the idea of marginal labour productivity in neoclassical production and distribution theory.

The role played by the small firm, apart from its characteristics of flexibility, initiative and inventiveness, is to help determine the total distribution surplus, macroeconomically considered. By setting an upper limit for the minimum wage, in consequence of their lower productivity (both mean and marginal), small firms enhance the profits of the large firms they coexist with, since these can afford far higher wages than are paid to low-skilled workers in small firms. In inflationary situations, furthermore, when workers demand an increase in the purchasing power of their pay, small firms are not productive and financially sound enough to raise wages so that, without meaning to, they “hold back” a majority of less skilled and unionized workers by capping their pay. All this is conducive not only to the growth of the distribution surplus vis-à-vis social output, but also to the tendency for it to accumulate in higher-productivity firms controlled by high-income groups. This happens in the form both of profits for large, often transnational firms and of high and rising pay for skilled workers in technical and managerial positions.

When markets are allowed to follow their own dynamic, the result, in both the centre and the periphery, is an intensification of structural heterogeneity (Pinto, 1965; Pinto and Di Filippo, 1991a and 1991b; Di Filippo, 1981a and 1981b) and income concentration. The average wage in small firms is therefore a subsistence line from which the pay of lower-skilled workers is calculated. Thus it is that the concept of needs is linked to that of surplus through the idea of institutionalized power.

VIII

Centre-periphery: the transhistorical approach and specific historical periods

The centre-periphery outlook, which is the characteristic framework of the historical and structural approach, has always been the starting point for Latin American structuralist economics. The power of hegemonic centres over peripheral societies in the world order is ultimately based on control of the scientific and technological processes that ensure their predominance in the cultural, economic and politico-military spheres. We have already examined the abstract links between culture (science and technology), creativity and power

that have characterized the evolution of Western civilization. The point that needs to be emphasized, as it is essential for an understanding of the key features of structuralist economic theory, is that Latin American societies have always been recipients of the waves of technological change that have reached the continent since the days of conquest and colonization.

The “intangible power” (Ferrer, 1996, p. 14) of the centre’s scientific and technological knowledge is the starting point for understanding the historical

formation of Latin American societies. The phases in which the centre-periphery outlook became established were determined by the successive waves of technology that swept these societies. What concerns us here is the time these events began in Latin America rather than the time the technological revolutions were actually happening in the centre itself.

The first wave of technology (fifteenth century) came from the Iberian powers, which used their knowledge of navigation, warlike equipment (armour, mounts, firearms), production processes (mining and farming techniques) and instruments of consumption and production to transform the basis of pre-Hispanic society. The second wave (nineteenth century) arrived after the British Industrial Revolution, when the emerging international capitalism established itself in the coal, iron, steel and steamship and railway industries just as the Latin American countries were becoming politically independent. The third (twentieth century) derived from the second industrial revolution in the

United States, which led to increasing use of energy from oil and, to a lesser extent, from electricity, along with procedures for rationalizing work (Taylorism, Fordism, etc.) and new durable products such as the automobile and household electrical appliances. The fourth and most recent (twenty-first century), which had already begun by the late twentieth century, has been the introduction of information and communication technologies and advances in biotechnology. Its consequences have given rise to a new era which we call global, or globalized.

While what Aldo Ferrer says is broadly accurate and the history of globalization began during the conquest and colonization of America, the current technological revolution has transnationalized production in new ways that have given a leading role to transnational enterprises and are requiring a transformation of domestic institutions, while structurally affecting the basis of the centre-periphery relationship (Sunkel, 1970; Di Filippo, 1998).

IX

Centre-periphery, economic value and the terms of trade

Structuralist theories of economic value try to find the links between structural change, both technological and institutional, and the dynamic of prices. This is a feature both of global markets and of the societies of the periphery themselves.

Prebisch's version of the deteriorating terms of trade theory, formulated in the late 1940s and early 1950s, illustrates this structural dynamic. Prebisch was not interested in equilibrium prices at a given point in time, but concerned himself with certain specific international markets (commodities versus manufactures), subjecting them to a sustained examination of the terms of trade deriving from the international division of labour between centre and periphery. The conditions in which this deterioration took place were dynamic and structural (technological and institutional).

The income elasticity of demand is only the empirical expression of an explanation whose structural basis lies deeper. According to Engel's laws, in the sphere of consumption the elasticity of demand increases more quickly for manufactures than for

primary commodities. The study of these baskets of goods provides, furthermore, an empirical basis for the idea of basic needs and for the poverty line from which subsistence wages can be calculated to provide a reference framework for establishing the needs-dependency-power nexus on which the concept of surplus is based.

The cyclical character of capitalist development in the centre determines the instability of prices for both manufactures and commodities. Empirical measurements immediately show that commodity prices are far more variable than those of manufactures and that, in the long run, global demand for the latter (inputs or final products) grows more quickly than demand for commodities.

This tendency lies at the root of the chronic debts and deficits weighing on the external accounts of Latin America. The last cyclical boom associated with the rise of commodity-consuming emerging economies, most of them in Asia, seemed to indicate that it had been reversed as these economies decoupled from the cycles of the developed world. At the present

juncture, however, the deep recession affecting the Western centres has also hit the Asian countries hard and commodity prices have dropped back from levels that were unprecedentedly high by the standards of earlier cycles. Time will tell how global commodity prices evolve in the longer run.

From the standpoint of the international supply of both commodities and manufactures, meanwhile, the terms-of-trade deterioration appears to be due to positions of institutionalized power. Prebisch notes that the expansion of productive power (productivity gains) is not appropriated to any significant extent in the periphery, because workers lack the cultural and political influence and union power needed to ensure that their incomes keep pace with the improvement. Conversely, wage earners in the central societies, particularly since the end of the Second World War, hold positions of institutionalized power (unionization, political participation) that enable them to increase their incomes in line with their productivity. In this

sphere too the historical conditions of the terms of trade are changing because of the participation of emerging Asia. There, large productivity gains in manufacturing are being transferred to transnational enterprises operating in export processing zones even as they create unfavourable terms of trade for Asian societies, since their political and social systems, especially in China, do not provide the conditions for pay to keep pace with these gains.

In any event, alterations in historical conditions and empirical trends do not mean the theory is faulty, but are a consequence of new structural conditions in the societies participating in the global marketplace. The explanation for the deterioration in the terms of trade for commodities as against manufactures forms part of a theory of economic value according to which the power positions of contracting parties in the production and social structure, and the changes in these positions, determine fluctuations in relative prices for these goods.

X

The structuralist theory of inflation

Latin American structuralism does not study the general equilibrium conditions of markets, but rather the long-term structural forces that are constantly destabilizing them in the dynamic of economic development. Nor does it see the market as possessing self-regulatory forces that return it to positions of stable equilibrium. A practical application of this outlook was provided by the formulation of the structuralist theory of inflation.

Structuralism studied inflation in the light of the factors tending to unbalance sectoral or specific markets as a result of the structural changes that accompanied the economic development process in the post-war period and approximately up to the end of the 1970s. On the one hand, this examination had an international focus, in accordance with the centre-periphery view of the cyclical oscillations caused in the central economies by changes in the quantity and prices of tradable goods, giving rise to situations of external imbalance or alterations in the terms of trade (Prebisch, 1963, appendix).

In the national economies of the periphery, inflation was caused by a combination of external constraints and domestic supply bottlenecks caused by

institutional or industrial rigidities. In all cases, relative price changes were the immediate driving force behind inflation and its effects on absolute prices.

Between the late 1950s and early 1960s, a number of Latin American authors proposed and developed an interpretation of inflation that helped to justify and consolidate the appellation of “structuralist” by which this school of theory has been known (Noyola, 1957; Sunkel, 1958; Prebisch, 1963 and 1981; Pinto, 1968).

Particularly with regard to inflation, the distinction between structure and system was highlighted. Assuming the existence and historical continuity of the latter, what can change or stay the same is its structure. In this context, it is not only the structure that needs to be considered but also the actors operating within it and the system mechanisms, understood as processes driven by these actors either to preserve its existing workings or in an attempt to change them. Given the preoccupation of Latin American structuralist economics with development, structural change is a matter of fundamental interest to it.

Setting out from the systemic approach of which structuralist economics may be considered part, it is

possible to identify the structural heterogeneity of economic systems, the actors occupying leading positions of power within them, the areas of operation of the system and the institutionalized power mechanisms whereby these actors affect and are affected by inflationary processes.

The pioneers of the structuralist approach to inflation were, without question, Noyola (1957) and Sunkel (1958). Noyola established a fertile conceptual distinction between basic (structural) inflationary pressures and the propagation mechanisms operated by structurally conditioned actors.

Sunkel, for his part, distinguished between basic, circumstantial and cumulative inflationary pressures. The first of these include structural rigidities that not only affect costs associated with factor endowments and the production structure, but also positions of institutionalized power (agricultural property rights, for example, or import capacity) that conflict with the new dynamic demands of development. The idea of circumstantial inflationary pressures allows for consideration of specific historical situations (environmental issues, wars, etc.) that are unpredictable and affect structures sporadically. Lastly, the concept of cumulative inflationary pressures assumes that, since inflation is obviously a structural disequilibrium, it is not necessarily corrected by the free play of market forces or through restriction of the money supply, but can give rise to cumulative circular tendencies

(Myrdal, 1967) that maintain or exacerbate the original imbalances.

In turn, the propagation mechanisms identified by Sunkel may be interpreted as the concrete forms taken on by the distributive struggle between the different agents affected by the inflationary process, depending on their positions of institutionalized power and their specific action strategies. Pressures of this type are manifested when the different social groups try to recover their positions in the income distribution.

Subsequently, building upon the foundational contributions of Noyola and Sunkel, Pinto (1968) and Prebisch (1981) directly and forthrightly introduced the social structure concept to explain the positions of institutionalized power underlying the relative price changes that translate, synthetically, into inflation.

In his last book, Prebisch (1981) also made an effort to tie in structuralist “social” inflation theory with a theory of power and surplus, in which the inflationary mechanism was associated with the distributive struggle through the logic of peripheral capitalism. According to Prebisch, this mechanism militated against the development of peripheral democracy. Leaving aside the actual merits or demerits of his arguments, which there is no room to discuss in this paper, what Prebisch was expressing once again was a theory of economic value that explained the dynamic of prices and the market with reference to the positions of institutionalized power held by actors in the social structure.

XI

Values, markets and prices in the twenty-first century

The structuralist approach always gave central importance to the level and distribution of real income as a determining factor in the behaviour of the effective demand that drives the economic system. Today’s globalization process has altered both the causes and the effects of income distribution.

Structuralism rejects the idea of functional income distribution in the neoclassical sense of remuneration for the factors of production expressing their marginal productivity as calculated on the assumption of perfect competition in the markets concerned. In fact, the

ownership structure of the factors of production and the markets where these are traded largely reflects the network of other institutions that regulate the positions of cultural, political and biogico-environmental power of the individuals and families who control the factors of production.

Underlying the distribution of income has always been the structure of ownership of the strategic resources, both real and financial, traded in markets. In fact, the analysis of social classes carried out by the classical economists and Marx was based on the

position occupied in that structure by landowners, peasants, financiers, industrialists and workers, among other segments of society.

In today's globalized world, this basic, transhistorical observation acquires specific characteristics. The real resources whose prices are largely determined by their ownership include what are known as natural resources (cultivable land, woodland, springs, ecosystems, mineral wealth, non-renewable energy sources), the supply of which is increasingly dependent on environmental and technological factors. Furthermore, the ownership of "human capital" based on education has also come to form part of the privatization of knowledge associated with the stratification of labour markets. This factor has increased the importance of cultural power in the functioning of markets and prices. Meanwhile, political power is manifested in new ground rules that are increasingly "transnationalizing" property rights.

The key players in this new era are transnational enterprises and their ownership rights (which we might perhaps term "transnational rights" owing to the ease with which they are transferred through stock market mechanisms), the direct access they have to global financial capital and their control of leading-edge technologies developed in their own research and development departments, which allow them to further enhance their productivity gains.

Many of these transnationals' productivity gains are generated in their subsidiaries in peripheral societies (Di Filippo, 1998). Their ability to capture economic surplus derives precisely from the fact that they achieve "central" productivity levels with "peripheral" wages.

In the modern era, the centre-periphery idea as it relates to the global power structure has become associated with the mechanisms for creating and controlling technological power. This "intangible power" (Ferrer, 1996, p. 14) is generated in politically unified national societies, as a product of their internal cultural dynamic.

The idea that the globalization process has made it possible for transnational enterprises to operate independently of the political and cultural power of their home countries is a mirage, firstly because the great technological revolutions are a cultural product of hegemonic countries, and secondly because these firms still require institutionalized ground rules to enable them to operate on a global scale. The investment, services, intellectual property and other codes approved by the World Trade Organization (WTO) are all examples of such institutional frameworks.

For example, events such as the 1998 failure of negotiations over the adoption of the Multilateral Agreement on Investment (MAI) by the Organisation for Economic Co-operation and Development (OECD) created an institutional vacuum that may have contributed to the current disastrous collapse (2009) of investment banks in the United States and its contagion to the rest of the world's fragile financial architecture.

Indeed, the growth processes that have operated in Latin America since the 1990s are essentially a transplant of globally evolved market institutions that are not always compatible with the political institutions of democracy. The frequent crises experienced in the last 20 years have been due to the absence of a "financial architecture" capable of regulating the behaviour of major transnational actors.

In the first place, the need to have specific institutions that are adapted to transnational agents and markets and transcend the political and cultural frameworks of nation States has led to a proliferation of rules laying down quality standards not only in procedural, sanitary and environmental matters, such as the rules of the International Organization for Standardization (ISO), but also in the political and economic spheres, as with the classification established by risk rating agencies such as Moody's.

The quality standards required by international investors are set by intergovernmental agencies or globally active private organizations for every kind of issue: competitiveness, legal security, macroeconomic policy stability, etc. Although such standards are reasonable given the need to compete in a globalized world, there has always been a case for questioning standardized prescriptions that do not take account of national or regional peculiarities.

With regard to the resolution of disputes between global investors and governmental authorities, both multilateral and regional agreements often contain clauses giving jurisdiction over these to panels of experts who pronounce on environmental, sanitary and even employment matters, overriding national and local standards (Di Filippo, 2008).

In the sphere of technology and production, there can be no denying that these standards are underpinned by the tremendous effectiveness of the pragmatic methods of Western science in the terms analysed by Furtado and examined in earlier sections. These form part of the "intangible power" projected by the great universities of the developed world, and upon them the technological future of humanity instrumentally depends.

However, an attempt is being made to transfer similar “objective” standards to the economic, social and political sphere, confusing neoliberal market dogmas with the theoretical foundations of economics, politics and culture.

Education is tending to become, wholly or in part, a commodity. The same is happening with other public goods such as security (segregated residential neighbourhoods) and the administration of justice (the high cost of legal advice), along with the privatization of parks, beaches, motorways and even citizen security. The characteristic ground rules of the growth style that is part and parcel of global capitalism have been

introduced in all political, economic and cultural institutions, fixing new positions of institutionalized power that have ultimately affected the distribution of personal and family income, the geographical location of the social classes and strata in different areas of great metropolises and the distribution of educational opportunities in these same areas, among other things.

As a consequence of these shifts, markets and prices have undergone profound structural alterations, principally in response to changes in the institutions that regulate the supply and cost of the primary production factors (labour and natural resources) and money.

XII

The global financial crisis of the neoliberal order

In a systemic analysis of the current global economic order, it is possible to establish a difference between actors, technical and social structures, spheres or spaces occupied by the system and processes or mechanisms employed by the actors that drive it. Here we shall examine the global economic system, distinguishing three main actors: (i) the hegemonic centres, basically the United States and the European Union, which since the post-war period have been the “makers” of international technical and social structures (rules), (ii) the intergovernmental negotiating and lending agencies that administer and propagate these ground rules and (iii) transnational corporations, which are the main beneficiaries of the new type of global transactions that have proliferated following the introduction of information and communication technologies.

Considered multidimensionally, of course, the globalization process includes other important transnational actors, starting with the great monotheistic churches, transnational networks of universities and other cultural establishments and numerous non-governmental organizations of various types and orientations. To understand the current economic crisis of the global order, however, even the most cursory review must make mention of at least the three actors mentioned.

The actors concerned interact within the framework of institutional structures monitored by

multilateral agencies —the WTO, the International Monetary Fund (IMF), the World Bank— and technological structures peculiar to the current era of information and communications. The economic sphere in which the international system operates has expanded considerably following the inclusion of China, India and the countries of eastern Europe that were formerly members of the Council for Mutual Economic Assistance (Comecon). All these are developing strategies and tactics to increase their control over global markets. However, the pacesetters in the global era are transnational enterprises (Di Filippo, 1998).

After the failure of the MAI negotiations, transnational agents in the global system, United States investment banks in particular, fostered and benefited from the creation of successive speculative “bubbles”.

The predominant neoliberal outlook, rooted in an individualism that is not only methodological (the whole is the sum of its parts) but also ethical (executives with pay directly linked to firms’ short-term earnings) opened the way to the creation of inadequately coordinated and supervised worldwide networks of transnational production and finance.

Up to a point, this neoliberal approach is also responsible for the huge financial crisis the world economy is experiencing now (2009), known colloquially

as the subprime crisis. This was at least partly due to credit creation by investment banks (money supply) that was driven by a private or sectoral rationale, without taking account of the institutionalized positions of power of the contracting parties.

Information technologies have facilitated the creation of “plastic money” (debit and credit cards) and the spread of consumer lending, providing individuals and families with liquidity against as yet unearned wages to purchase consumer durables. Lending of this type has recently been extended to all kinds of consumer goods, including the perishables bought on a daily basis in supermarkets. A gulf accordingly began to open up between the liquidity or immediate purchasing power of borrowers and their solvency over different repayment periods.

Under conditions of what we might call “consumerist overborrowing”, investment bank executives overestimated the solvency of mortgage borrowers and thus their ability to service the transactions they were carrying out. The ability of monetary policy (interest rates and money creation) to restore balance in the monetary and financial markets was also overestimated. The subject cannot be gone into here, but there can be no doubt that the monetary instrument, applied with a neoliberal mentality, has begun to fail.

Among other explanations for the financial collapse of global capitalism (2009), there is the fact that the monetary-financial sphere is not independent of the real economy and that money creation is not neutral, i.e., that it will create winners and losers depending on the structural power conditions under which it is carried out and the mechanisms used, acting through relative output prices and wealth to be reflected ultimately in activity levels and income distribution.

In the context of this unprecedented financial permissiveness, the “invisible hand” of the financial market was subjected to the microeconomic business model of the investment banks. Hyman Minsky (1992),

whose strongly Keynesian thinking developed in the 1980s and is now in vogue because of the global crisis, considered three types of firms (financial and otherwise) from the standpoint of their behaviour in credit markets: (i) hedge units, capable of paying down not just the interest but also the principal on their debts, (ii) speculative units, capable of paying interest but not principal and (iii) Ponzi units, whose profitability depends on “bubbles” or markets artificially driven up by speculative feedback.

According to Minsky, the first theorem of the financial instability hypothesis is that the economy has financing regimes under which it is stable and financing regimes in which it is unstable. The second theorem of the financial instability hypothesis is that over periods of prolonged prosperity, the economy transits from financial relations that make for a stable system to financial relations that make for an unstable system (Minsky, 1992, pp. 8 and 9).

This behaviour of individual actors in the context of a financial system with regimes and institutions that are highly permissive and culturally legitimated on the basis of an individualistic neoliberal ethos has facilitated financial frauds based on “Ponzi models” such as the Madoff scandal, whose cost is put at US\$ 50 billion on initial estimates.

We cannot go further into the subject here, but the systemic examination that is part of the structuralist approach suggests that when the regulatory institutions, structures and regimes of global capitalism are relaxed, or their design depends on firms’ microeconomic rationality, transnational operators overstep their powers and responsibilities and try to maximize earnings to the “limit” of what their positions of institutionalized power allow. This limit was exceeded in late 2008 and early 2009, leading to the collapse of the United States financial system and a global crisis that is now spreading to the real economy, with unpredictable long-term consequences.

(Original: Spanish)

Bibliography

- Aristotle (2003), *The Nicomachean Ethics*, London, Penguin Classics.
- (1996), *Politics*, Cambridge, Cambridge University Press.
- Arrow, K. (1962), “The economic implications of learning by doing”, *Review of Economic Studies*, vol. 29, No. 3, Oxford, Blackwell Publishing.
- Balboa, M. (1961), *Cuentas nacionales*, Santiago, Chile, Latin American and Caribbean Institute for Economic and Social Planning (ILPES).
- Barro, R. (1987), *Macroeconomics*, New York, John Wiley.
- Becker, G. (1964), *Human Capital*, New York, Columbia University Press.
- Bielschowsky, R. (2009), “Sixty years of ECLAC: structuralism and neo-structuralism”, *CEPAL Review*, No. 97 (LC/G.2400-P), Santiago, Chile, April.
- (1998), “Cincuenta años del pensamiento de la cepal: una reseña”, *Cincuenta años de pensamiento en la CEPAL: textos seleccionados*, vols. 1 and 2, Santiago, Chile, Fondo de Cultura Económica/Economic Commission for Latin America and the Caribbean (ECLAC).
- Bunge, M. (1998), *Social Science under Debate*, Toronto, University of Toronto Press.
- (1997), *Ciencia, técnica y desarrollo*, Buenos Aires, Editorial Sudamericana.
- (1961), *Causalidad*, Buenos Aires, EUDEBA.
- Castro, A. and C. Lessa (1973), *Introducción a la economía. Un enfoque estructuralista*, Buenos Aires, Siglo XXI Editores.
- Chenery, H. and P. Clark (1959), *Interindustry Economics*, New York, J. Wiley.
- Cimoli, M. (ed.) (2005), *Heterogeneidad estructural, asimetrías tecnológicas y crecimiento en América Latina (LC/W.35)*, Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC).
- Di Filippo, A. (2008), “Área de Libre Comercio de las Américas: origen, desarrollo y propuestas de futuro”, *América Latina, hacia su unidad. Modelos de integración y procesos integradores*, José Vidal-Beneyto, Valencia, Fundación Amela.
- (2007), “La Escuela Latinoamericana del Desarrollo: tensiones epistemológicas de un movimiento fundacional”, *Cinta de Moebio: Revista electrónica de epistemología de ciencias sociales*, Santiago, Chile, University of Chile [on line] <http://www.uchile.cl/29/difilippo.pdf>.
- (1998), “La visión centro periferia hoy”, *CEPAL Review*, special issue (LC/G.2037-P), Santiago, Chile, October.
- (1981a), “Desarrollo y desigualdad social en la América Latina”, *Lecturas*, No. 44, Mexico City, Fondo de Cultura Económica.
- (1981b), “La tesis del excedente y la realización de la plusvalía en Marx”, (appendix citing authorship), *Capitalismo periférico: crisis y transformación*, R. Prebisch, Mexico City, Fondo de Cultura Económica.
- (1980), “Economic development and theories of value”, *CEPAL Review*, No. 11 (E/CEPAL/G.1123), Santiago, Chile, August.
- Fajnzylber, F. (1990), “Industrialization in Latin America: from the ‘black box’ to the ‘empty box’”, *Cuadernos de la CEPAL series*, No. 60 (LC/G.1534/Rev.1-P), Santiago, Chile. United Nations publication, Sales No. E.89.II.G.5.
- Ferrer, A. (1996), *Historia de la globalización: orígenes del orden económico mundial*, Buenos Aires, Fondo de Cultura Económica.
- Ffrench-Davis, R. (2005), *Macroeconomía, comercio y finanzas para reformar las reformas en América Latina*, Bogotá, D.C., MAYOL Ediciones/ECLAC.
- Furtado, C. (1978), *Criatividade e dependência na civilização industrial*, Rio de Janeiro, Paz e Terra.
- (1967), *Teoría e política do desenvolvimento econômico*, São Paulo, Companhia Editora Nacional.
- (1965), *A dialética do desenvolvimento*, Mexico City, Fondo de Cultura Económica.
- (1964), *Development and Underdevelopment*, Berkeley, University of California Press.
- Grossman, G. and E. Helpman (1991), *Innovation and Growth in the Global Economy*, Cambridge, Massachusetts, The MIT Press.
- Harcourt, G. (1972), *Some Cambridge Controversies in the Theory of Capital*, Cambridge, Cambridge University Press.
- Helpman, E. (2004), *The Mystery of Economic Growth*, Cambridge, Massachusetts, Harvard University Press.
- Infante, R. and O. Sunkel (2009), “Chile: towards inclusive development”, *CEPAL Review*, No. 97 (LC/G.2400-P), Santiago, Chile, April.
- Katz, J. (2001), “Structural reforms, productivity and technological change in Latin America”, *Libros de la CEPAL series*, No. 64 (LC/G.2129-P), Santiago, Chile. United Nations publication, Sales No. E.01.II.G.22.
- Kuhn, T. (1969), *The Structure of Scientific Revolutions*, Chicago, University of Chicago Press.
- Leontief, W. (1966), *Input-Output Economics*, New York, Oxford University Press.
- Los, B. (2001), “Crecimiento endógeno y cambio estructural en un modelo dinámico de insumo producto”, *Momento económico*, No. 114, March/April.
- Lucas, R. (1988), “On the mechanics of economic development”, *Journal of Monetary Economics*, No. 22, Amsterdam, Elsevier.
- Mallorquín, C. (2006), “En resguardo de lo herético: el estructuralismo latinoamericano y el institucionalismo norteamericano”, *Estructuralismo latinoamericano e institucionalismo norteamericano. ¿Discursos compatibles en la teoría social contemporánea?*, R. Sánchez Torres and C. Mallorquín (eds.), Puebla, Benemérita Universidad Autónoma de Puebla.
- Mankiw, N.G. (2007), *Principles of Economics*, Mason, Ohio, South-Western.
- Martin, R. and P. Sunley (1998), “Slow convergence? The new endogenous growth theory and regional development”, *Economic Geography*, vol. 74, No. 3, Worcester, Clark University.
- Marx, K. (1967), *Capital*, New York, International Publishers.

- Medina Echavarría, J. (1973), *Aspectos sociales del desarrollo económico*, Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC).
- (1963), *Economic Development in Latin America: Sociological Considerations* (E/CN.12/646), Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC).
- Minsky, H. (1992), “The financial instability hypothesis”, *Economics Working Papers Archive*, No. 74, New York, The Levy Economics Institute.
- Monza, A. (1972), “La validez teórica de la función de producción agregada”, *Económica*, No. 3, September/December.
- Myrdal, G. (1968), *Economic Theory and Underdeveloped Regions*, New York, Harper & Row.
- Nixson, F. (2006), “Rethinking the political economy of development: back to basics and beyond”, *Journal of International Development*, vol. 18, No. 7, John Wiley & Sons [online] <http://www.interscience.wiley.com>.
- North, D. (1993), *Institutions, Institutional Change and Economic Performance*, Cambridge, Cambridge University Press.
- Noyola, J. (1957), “Inflación y desarrollo económico en México y Chile”, *Panorama económico*, No. 170, Santiago, Chile, Editorial Universitaria, July.
- Ocampo, J. (1999), *La reforma del sistema financiero internacional: un debate en marcha*, Santiago, Chile, ECLAC/Fondo de Cultura Económica.
- Olson, M. (1965), *The Logic of Collective Action*, Cambridge, Harvard University Press.
- Pasinetti, L. (1974), *Growth and Income Distribution: Essays in Economic Theory*, Cambridge, Cambridge University Press.
- Pinto, A. (1991), *América Latina: una visión estructuralista*, Mexico City, National Autonomous University of Mexico.
- (1973), *Inflación: raíces estructurales*, Mexico City, Fondo de Cultura Económica.
- (1968), “Raíces estructurales de la inflación”, *Estabilidad monetaria y desarrollo económico*, Mexico City, Arte y Cultura.
- (1965), “Concentración del progreso técnico y de sus frutos en el desarrollo latinoamericano”, *El trimestre económico*, No. 125, Mexico City, Fondo de Cultura Económica, January/March.
- Pinto, A. and A. Di Filippo (1991a), “Desarrollo y pobreza en América Latina: un enfoque histórico estructural”, *América Latina: una visión estructuralista*, Aníbal Pinto, Mexico City, National Autonomous University of Mexico.
- (1991b), “Notas sobre la estrategia de la distribución y la redistribución del ingreso en América Latina”, *América Latina: una visión estructuralista*, Aníbal Pinto, Mexico City, National Autonomous University of Mexico.
- Polanyi, K. (2001), *The Great Transformation*, Boston, Massachusetts, The Beacon Press.
- Prebisch, R. (1981), *Capitalismo periférico: crisis y transformación*, Mexico City, Fondo de Cultura Económica.
- (1963), *Towards a Dynamic Development Policy for Latin America*, New York, United Nations.
- Rojo Duque, L. (ed.) (1966), *Lecturas sobre la teoría económica del desarrollo*, Madrid, Editorial Gredos.
- Romer, P. (1990), “Endogenous technological change”, *Journal of Political Economy*, vol. 98, No. 5, Chicago, University of Chicago Press.
- (1986), “Increasing returns and long run growth”, *Journal of Political Economy*, vol. 94, No. 5, Chicago, University of Chicago Press.
- Smith, A. (2007), *The Wealth of Nations*, Petersfield, Harriman House.
- Solow, R. (1988), “Growth theory and after”, *American Economic Review*, vol. 78, No. 3, Nashville, Tennessee, American Economic Association.
- Sunkel, O. (1989), “Institutionalism and structuralism”, *CEPAL Review*, No. 38 (LC/G.1570-P), Santiago, Chile.
- (1980), “The interaction between styles of development and the environment in Latin America”, *CEPAL Review*, No. 12, Santiago, Chile, December.
- (1970), “Desarrollo, subdesarrollo, dependencia, marginación y desigualdades espaciales”, *EURE*, vol. 1, No. 1, Santiago, Chile, Instituto de Estudios Urbanos, October.
- (1958), “La inflación chilena: un enfoque heterodoxo”, *El trimestre económico*, vol. 25(4), No. 100, Mexico City, Fondo de Cultura Económica, October/December.
- Sunkel, O. and P. Paz (1970), *Subdesarrollo latinoamericano y la teoría del desarrollo*, Mexico City, Siglo XXI.