From labour economics to knowledge economics

A vision of the second half of the 20th Century*

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INTRODUCTION

As someone whose professional life has been devoted to the analysis of contemporary economics and society over nearly fifty years, I believe that now that I have reached the venerable moment of my *jubilação* (as professor emeritus), I can legitimately ask: «what, after all, is the moral of the story of this half century»?

In other, perhaps less provocative, words: in essence, how can we interpret the great transformations which took place in capitalism over the second half of the twentieth century, even though strictly speaking these transformations were amoral, like all of history? Amoral, but maybe not meaningless.

Those of us who were born in the first half of the century, but were only fully aware of the period we were living in the second, feel that «the world has changed» (yet again) and that the last quarter of century is distinct from the one which preceded it due to there being some strong discontinuity.

So, what «really» happened besides the great ideological pictures which were projected to us as the events occurred, pictures which were an integral part of the trajectory itself and which actually created their very own reflections?

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Perhaps these far reaching questions only prove that the person who dares to ask them is hopelessly and excessively presumptuous. And to add insult to injury in a Portugal which is apparently so removed from the stream of today's history.

This may be so. I must admit that I am impatient: I cannot (yet) be sure that I shall have another life in which to search for the possible answers to these questions and I am still so very curious to find them.

So let's get to the point.

In the 50s and 60s, «Labour Economics» was a subject of growing importance in the USA and Europe and it dealt with the great economic issues of the world of labour such as trade unionism, wages and the distribution of income, employment and unemployment, etc. In Portugal, this was first taught at the *Instituto de Estudos Sociais* - ISCTE's predecessor - in the mid sixties and I was given this honourable task, subsequently publishing a book based on my course entitled no less than *Economia do Trabalho* (Labour Economics). My doctoral thesis in Economics from the Technical University of Lisbon was on «Wage determination in industry», also within the realms of this subject and considered somewhat subversive in the so-called «corporative» Portugal of that time.

Forty years on, it is «knowledge economics» that is in vogue and the term labour seems to have become obsolete - at least in those countries we generally think of as developed.

Can we therefore ask: what happened to labour and the «working classes» in the so-called First World, the «developed» capitalist countries in this half-century?

And how has the capital/labour relationship evolved in the capitalist process of value creation and distribution? Other related questions spring easily to mind, all part of the problematic nucleus which I shall discuss below.

The answer to such immense questions is neither simple nor easy but in my search for clues to the possible answer, I shall try to place «labour» in the context of the economic system which was responsible for its appearance, *i.e.,* capitalism, the giddy and triumphant rise of which - at least in the eyes of the victors - characterises the world economy of the last half century.

More specifically, I shall briefly discuss the following topics within the confines of the time available:

- *The evolution of the production structure and employment, or if you prefer, the transformation in the mechanism or «model» of economic growth;*

- *The emergence of «knowledge» as a determining factor of competition in the global market;*
- *The acceleration of the globalisation process of the world economy;*

And lastly:

- *The impact of the above trends in the passage from the «labour market» to the «knowledge market» as a key mechanism of the accumulation of capital in developed capitalism.*

Let's start at the beginning of Economic Science itself.

ON VALUE THEORY

It is well known that the classic economists consider the «labour theory of value» to be a central concern, and that Marx took this «theory» to the ultimate theoretical, philosophical and political consequences. Essentially, the Marxist value theory stated the following: the value of goods lies in the direct and indirect labour required for its production; the value of labour itself corresponds to the worker's minimum subsistence value, *i.e.,* the number of hours' labour necessary to produce what the worker needs to ensure his subsistence and reproduction. The «secret» of the accumulation of capital inherent in capitalist production lies in the «surplus value», that is, the difference between the value of the good appropriated by the capitalist and the value of the labour input which he pays to the worker-proletariat. It is here also that the exploitation of the salaried worker is found and the root of the class struggle inherent to capitalist production.

But I do not wish to deal with the history of economic thought nor give a critique of Marxism: I simply want to record that this was the «theory» of value in force - in that it was the subject or inspiration of great controversy among the main lines of thought of the time - for at least a century. In fact, it was in 1970 that the MIT professor and Nobel Prize winner, Paul Samuelson, wrote an important article in search of the definitive criticism of the famous problem of the «transformation of values into production prices» (Samuelson, 1970, 1971). At that time, Samuelson was for some reason still very much interested in «Marxian economics».

This article showed that the Marxist value concept could not be used as the basis for the explanation of the price mechanism in the market economy. Marx had tried to do this but failed as had all those after him. Logically, in fact, it was an impracticable exercise because of its starting points. In a well known book at the time by Piero Sraffa, published in 1960 under the somewhat pompous title of *Production of commodities by commodities (prelude to a critique of economic theory)*, this author implicitly demonstrated where the problem lay when defining a standard for the value of commodities. After all, this problem is not that different from weighing up the components of the price index or even calculating the so-called terms of exchange, or «terms of trade» in measuring relative values, for example, between prices of primary and manufactured products or between these and the price of «knowledge intensive» services such as health and education services.

It is well known that the measurement of the importance of the primary, secondary and tertiary sectors in the economy or in the domestic product of a national economy requires that we estimate these «terms of exchange» or relative values, among other things. The measurement of an «absolute value» of the merchandise as Marx intended is out of the question at any rate.

FROM THE FELDMAN-MAHALANOBIS MODEL TO THE ERIC ROMER MODEL IN THE EXPLANATION OF ECONOMIC GROWTH

It can also be said that this period saw the end of a phase of development in the capitalist system where the industrial worker, trade unionism and, more generally speaking, the industrialisation process, had been key pieces in the mechanism or «model» of economic growth. This was, in theory and in practice for those who wanted to interpret and give meaning to it, accumulation of material capital, investment in equipment or machines with «incorporated technical progress», as it was put at that time. The extreme of this model - and almost a caricature of it - was the Soviet experiment based on heavy industry. It was well described - theoretically - in the so-called Feldman-Mahalanobis model which was much cited by economists of the Third World in the 60s and 70s as a source of inspiration for the «self-reliant» strategy of national development (Murteira, 1990). The model showed how investment in industry which produced capital goods, even with the immediate sacrifice of consumption, allowed greater, long-term growth rates and, hence, also greater levels of consumption. As they wrote at the time, this was about developing «industrialising industries», *i.e.*, an industrial structure able to reproduce itself and expand indefinitely. Even in Portugal in Salazar's time, Ferreira Dias - a very reputable author on industrial policy, and member of several Governments - wrote a book which became famous entitled, *Linha de Rumo*, where he stated that a country without steel works is no more than a *horta* (vegetable garden).

The phase he referred to covered the period lasting about 30 years following the Second World War which saw, among other things, the peak of trade unionism in the USA, of labourism and social democracy in Europe and also the most critical period of the so-called cold war - a «war» which, as we well know, finally entered the history books at the end of the 80s with the collapse of one of the parties: the Soviet Union.

It was at this time that several labour economists considered trade unionism a conservative force of the capitalist system, given that trade unionism integrated the workers in capitalist society allowing the expression and satisfaction of their demands (Murteira, 1990). Similarly, Galbraith called it «countervailing power». And in fact the labour share in the national income of some the more developed capitalist countries has *increased*, rather than remaining more or less stable over a long period which surprised even Keynes, or *decreasing* like in the most recent decades (Murteira, 1969, 2003, Thurow, 1999).

Which new trends have come to the fore in the dominant economic system since then, *i.e.,* in the last quarter century? And more specifically in the sphere of labour relations in the developed countries? And what meaning can be given to 1974, not because of our romantic Portuguese revolution of April 25th, our *Revolução dos Cravos* (carnation revolution) but as one author suggested (Greenwood and Yorukoglu, 1997), because 1974, in some way, marked the end of one capitalist era and the start of a new one?

To put it very briefly and yet retaining the essential, the great trends were as follows:

- Transnationalisation, in terms of the rapid growth of the TNC (transnational corporations) and the international flows of capital, namely Foreign Direct Investment (FDI), with a steadily more significant presence in the formation of the capital of the more developed countries and also in international economic relations. The international flows of capital, including purely speculative movements, have increased dramatically and given a new dimension to the phenomenon of globalisation of the world economy. A «global competitive space» has been formed or developed which we can call a *mega-economy* and which conditions or even determines the sphere of what is called macro-economy, *i.e.,* the national economic space.
- This means a growing interconnection, interdependence or integration of national economies which is a multi-dimensional process often referred to as globalisation. The new information and communication technologies (ICT) play a decisive role here for without them it would have been impossible for financial globalisation to have been so extensive. Nowadays, this conditions significantly both the working of the global economy and the increasingly vulnerable national economies due to the growing liberalisation of capital movements.
- There is a strong trend towards the privatisation of economic systems with the corresponding reduction of the public sectors and a modification in predominant conceptions in the state's economic policy. To use the words of the World Bank, the approach is now "market friendly" rather than one which opposes the market. The main mission of state policy is to create structural conditions for the competitive-

ness of enterprises in the global market, *i.e.*, to ensure the "structural competitiveness" of the national economies.

- All this is also reflected in the working of the labour market and its various forms. The general trend is moving towards greater flexibility on the one hand (where firing workers is easier and there is a greater turnover in manpower) due in part to competition in the labour market being essential in conjunction with the decline of trade union power. And, on the other hand, there is a greater segmentation and differentiation of the labour market and there are specific categories of manpower with very different salaries and working conditions.
- Higher unemployment levels are tolerated and the objective of full employment in macro-economic policy takes second place behind monetary and financial stability. Among other things, this means that the Keynesian perspective of directing macro economic policy is given less significance, contrary to what happened in the so-called Golden Years.
- The central banks have become key figures in ensuring this stability and act independently of the national governments. However, this raises a paradox as the action of the national central banks now tends to follow a transnational logic rather than the traditional national logic. In fact, it is the great transnational corporations who are the prevailing actors in the economic world as their movements are progressively free of regulations.
- At the macro level of the economic structure, the tertiary sector is becoming predominant both from the employment and production perspectives. In both cases, the contribution of services has reached more than 70% of the size of the national economy in the most advanced economies in the process of economic growth. And within services, there has been a particularly marked growth of «informational» services, i.e. those which generate or transform information into «knowledge», this being understood simply as the organisation of information to respond to a question or to resolve a problem (Murteira, 2003).
  It is true that this growth in services shown through statistical data based on somewhat obsolete accounting criteria might be misleading. The trends towards outsourcing in modern management are well known and the statistics also put «out» what used to be «in» the enterprise, and were therefore classified as industry if that was the main activity of the enterprise. Moreover, there may also be an effect of the deterioration in the terms of exchange between industrial products and knowledge intensive service products, *e.g.*, education and health services. The latter are more valorised than the former just like the known effect of the secular devalorisation of the price of primary products in relation to products from the secondary sector.
- But none of this allows us to ignore the essential fact that mature economies support their productive activities with services and «knowledge intensive» workers.

According to Eric Romer, there is a place for a new economic growth model, based on something intangible but of determinant importance to the most advanced economies, *i.e.*, knowledge. According to Peter Drucker, the importance of knowledge workers - who have higher education and/or technical levels - is comparable in the employment structure today with the industrial workers of the 50s (Drucker, 2001). Their decline in terms of the volume of employment is in fact one of the explanations for the loss of workers trade union power seen in general in the First World.

These are the trends which justify the name "knowledge based economy" - a debatable one as we shall argue below - which is in full development in the current phase of capitalism. And, moreover, it is the advance of the USA in relation to the EU in this transition which would explain the extent to which the EU is lagging behind the powerful American economy.

FROM THE LABOUR MARKET TO THE MARKET OF KNOWLEDGE

From the analysis of these trends, we move on to making a comparison of the nature of the two markets which has the main function in the accumulation process in the two phases of capitalism in question, the first with industry «based» growth and the second with knowledge «based» growth.

In the first case, the labour market plays the main role in accumulation, hence its crucial importance in the class struggle and the ideological debate. In the second case, we have another and new very specific «market», which includes a «demand» and «supply» of knowledge playing the equivalent role.

Justification of this statement requires that we dwell a little further on the nature of this «market of knowledge».

Firms' demand for knowledge results from innovation being essential due to competition in the global market. Innovation is understood according to the definition accepted by the OECD: significant alterations in firms' products, processes, forms of organisation and competitive positioning. The latter expression is called, for example, the passage from internationalisation through trade to transnationalisation of the firm's investment, or the adoption of new partnership strategies (including the so-called networking) mergers or takeovers.

How is this «demand» for knowledge - required to support the innovative process at firm level - satisfied?

Obviously it can be done in the scope of the firm, in particular by actual R&D (research and development). But in most cases it is done «outside» the firm by using the services of other entities which might be specialised service firms - in software, management consulting, marketing, manpower training and management, R&D etc. - or university or even state research centres. The dominant importance of the large transnational firms is to be noted (in this activity too). They occupy most of the «market», not only in the developed countries, but also in Portugal or in the «least developed countries» (LDC) like Mozambique.

The specificity of this market is a result of the very specificity of the immaterial object exchanged - knowledge. In most cases, this knowledge will result from joint action or cooperation between the «demand» and the «supply» and the price is not the result of a gradual process of negotiation, or of a fairly quick adjustment of plans between the buyers and sellers as is found in most of the markets: the key question lies in the adequacy of the knowledge produced to the problem raised and this adequacy will very often result from a cooperative relationship based on mutual trust between the «supply» and the «demand», which together are searching for the solution to a specific problem or the answer to a specific question.

If this is the case, can we still talk of a knowledge «market»? I believe so for a number of reasons.

This mechanism for producing knowledge is the market, at least in one sense: there is no demand for knowledge in itself (motivated by the «curiosity of nature», essential to humankind, and also the driving force of its millennial evolution) but for knowledge as a means of succeeding in the competition within the market.

Another characteristic can be added to this: reputable authors such as Drucker, Handy, Thurow and others consider that knowledge is the source of wealth in current capitalism and ownership of the means of production no longer plays the key role in the working of the economic system. And this would be equally true for business organisations and for the «knowledge workers», considered individually. If the process of acquiring knowledge is called learning, be it as an individual or an organisation, and be it codified knowledge or tacit knowledge (unwritten, resulting from individual or collective experience), the access to material wealth would therefore be closely connected to the access to this immaterial wealth, that is, more or less successful learning strategies of individuals or organisations in the market.

Success, I repeat, measured according to the appropriation of knowledge valued by the market.

If this interpretation of capitalism today is credible, as I think it is, it would be reasonable to promote the «knowledge market» instead of the labour market as the most influential aspect in the mechanism of the accumulation of capital and economic growth in the capitalism of the 21st Century. At least, to assume it at the real core or nucleus of this system, a nucleus which is in turn determinant for the evolution of the whole world system.

THE GREAT TRANSFORMATION IN THE CAPITALIST SYSTEM: FROM THE «LABOUR ECONOMY» TO THE «KNOWLEDGE ECONOMY»

At first sight, this is a development which shows the potential of the market economy. Ultimately it is the freely expressed demand by consumers which creates the space, or the *raison d'être*, for the innovative process and, therefore, scientific research and technology go on duly supporting the process. In turn, it is this relationship which provides the impetus for R&D itself which, in the end, could prove to be a highly lucrative investment.

But in recognising this we must also complete the picture by mentioning other equally relevant and less positive facts.

One of these relates to a criticism often made of the market economy, more specifically about the distribution of income. It is well known that the demand expressed in the market mirrors a specific structure of income distribution which is far from coinciding with the map of human needs to be satisfied using equitable criteria. From an ethical perspective, this «demand» for knowledge, which is in question, cannot be accepted as the only or principle basis. And it can be argued that the contamination of the science by the market is the most obvious result of this emerging economy of knowledge. In truth, *the issue is one of a wave of knowledge «based on the economy» more than the birth of a new «knowledge based» economy*.

In addition, it should be remembered that there are specific barriers to the diffusion of knowledge which are the result of the rights inherent in intellectual property - a highly controversial but crucial aspect of the workings of the so-called knowledge economy. However, the time factor excludes the possibility of developing this subject here.

But, at a deeper level, there is reason to state - with a different meaning from the Keynesian position on macroeconomic policy as well as from the so-called Say law - that the «supply creates the actual demand»: the needs are stimulated and oriented to a large extent by the business firms themselves. No matter how many market studies they carry out to obtain in depth knowledge of the preferences of demand, they do not consider them passively. They act on them in various ways, so that one can question the true meaning of the hypothetical «consumer sovereignty», which is symbolic in the justification of the market economy.

This question was identified about half a century ago by Aldous Huxley in his *Brave New World Revisited* when he referred to the double personality of Mr. Jeckyll and Mr. Hyde in American capitalism. Jeckyll is a true democrat who defends individual freedom, as in the roles played by the candid James Stewart in the Frank Capra films and Mr. Hyde is the monster who, continuing with Huxley's description, has a PhD in Social Psychology, is a specialist in Marketing, that is, the manipulator of individual tastes and preferences for the benefit of his boss.

Perhaps it is even more disturbing to recognise that this emerging economy of knowledge will only make sense in a relatively small corner of the planet and in relation to the fraction of the world population which is at most about 20% although they hold more than 80% of the income (according to UNDP estimates). On the other hand, the poorest 20% have just 1.4% of this income! In other words, if access to wealth «tends» to be determined by the access to knowledge, directly or indirectly valued by the market, rather than by the ups and downs of the class struggle between proletariats and owners of the means of production, as at the start of industrial capitalism, this does not necessarily imply a reduction in social inequalities. It could even mean an increase: although there is a rise in the lower limit on the income scale earned by different social classes or sections, there is a greater increase in the upper limit.

(Along those lines, and just *in passing*, I note that, not long ago, the well known North American magazine *Forbes*, whose public is roughly the richest social strata in the United States, recognised that it is easier to be a billionaire in the USA today than it was to be a millionaire in 1950...)

A last note on the knowledge economy: in the global market which was formed in the world system in recent decades, the globalisation process was stressed principally in the sphere of financial capital and to a lesser extent in the sphere of knowledge or intelectual capital. That sphere continues to be largely motivated by speculative movements of colossal proportions and has a logic which it would be extremely difficult to link with a «knowledge based economy»

I believe that the issue of which of these two globalisation processes - financial capital and capital, will predominate in the long term development of capitalism remains

a totally open question, irrespective of where our hopes or bets may lie. What is clearly at stake is a complex social practice with numerous actors and with numerous interests.

Naturally, I have my preferences. But I am not one to confuse hopes with realities. And much less to reproduce - with a greater or lesser conviction and analytical ingenuity, the ideology supporting the global market in which we live and which, as we saw, consumed the last quarter of the 20th Century.

Nevertheless, we must admit that this second half of the 20th Century, which I have referred to, with all its violence and injustice, was much more positive than the first - time of the sinister new «thirty year war» which went from 1914 to 1945, of the millions of unemployed in the Great Depression, time of Nazism, Fascism and Stalinism, as well as the invention and use of the atomic bomb. This comparison brings us some comfort and can feed the hope we need. If we do not yet understand progress to be a «happy fatality», that is, a historic inevitability, we should assume it as a possible and desirable future which depends on us, humans to make happen.

This is the «moral of my story». Or, if you prefer, the vision which I have collected from my very specific experiences and understanding of this time.

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