

# Work as Key to the Social Question

The Great Social and Economic Transformations and the Subjective Dimension of Work



## Labour and Capital: The Challenges of Finance and of Knowledge-based Economy

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### A. Capital and Labour as Complements and Substitutes

One of the most important and complex decisions that any contemporary enterprise has to take in its capacity of organiser of the dynamic interaction of factors of production concerns the precise factor-mix it is going to use. Factor-mix means at the same time the absolute quantities of each factor of production used, their relative proportion and the intrinsic quality of each of them. Factor-mix decisions are crucial for the two dimension of the enterprise mission : technological production process, and distribution of value added. These decisions are complex because labour and capital are at the same time complements and substitutes. They are made under two types of external constraints :

- the feasible set of factor-mixes is enterprise specific, because it depends on the product market and on technological command of the enterprise ;
- relative factor prices are supposed by received economics to be objective, given by factor markets on which each enterprise is a price taker.

In consequence, and this conclusion is of utmost importance : the factor-mix used by the same enterprise will change according to relative factor prices it faces on the factor markets. Lower the relative price of capital, more capital-intensive will the enterprise factor-mix be. The same applies on a macro-level : lower will be the price of labour, more labour-intensive will be the factor-mixes used by the enterprises and hence higher will be the national employment level.

Economic theory argues that relative factor prices are country specific. They are influenced, on the demand side, by enterprises' needs and willingness to pay, i.e. by the technological command of national enterprises, on the supply side, the relative factor price is influenced

by the relative scarcity of factors on a given market.

In fact, in an era when national market boundaries collapse, specially for financial capital, the reassuring picture brought by the theory has to be revised. It does not account for the changes that globalisation has introduced in the world financial landscape. A dual financial system is emerging world-wide : part of it is global, open only to global players, the rest is still compartmentalised in national or local sub-systems. In consequence, for instance a very big company, belonging to the *Fortune 500* listing, has more facility to access global capital markets and will obtain there better conditions when raising additional capital, than a small unknown enterprise without track record seeking a local bank loan. This example shows that these two types of enterprises will face different relative factor prices. Thus, if the two enterprise have similar command of technological processes, their factor-mix will look totally different - rather capital-intensive for the global enterprise, more labour intensive for the local one. Depending on how the product market and the respective technological command will evolve, most probably one of the enterprises will be squeezed out of business because of its inability to compensate for the unfavourable differential in relative factor prices.

The differences mentioned above will have a strong selective impact on « new entrants » on product markets. New or small enterprises, looking for new activities will most probably avoid fields and industries where competitors have access to global financial markets where the required factor-mix is capital-intensive. In fact, the capacity of the enterprise to obtain factors of production at specific prices and in specific quantities, will determine the type of new (i.e. additional) activities the enterprise will choose to enter or develop rather than the other way around, as theory might suggest.

## **B. Pre-eminence of Capital over Labour**

Value added generated by an enterprise results from the co-operation of the two factors of production labour and capital. Beyond organising this co-operation and finding the appropriate factor-mix, any enterprise has also to manage the appropriate distribution of value added among the contributing factors. This complementarity is recognized by CST, specially in LE (12) where John Paul II says:

...capital cannot be separated from labour; in no way can labour be opposed to capital or capital to labour, and still less can the actual people behind these concepts be opposed to each other, as will be explained later. A labour system can be right, in the sense of being in conformity with the very essence of the issue, and in the sense of being intrinsically true and also morally legitimate, if in its very basis it overcomes the opposition between labour and capital through an effort at being shaped in accordance with the principle put forward above: the principle of the substantial and real priority of labour....”

“Opposition between labour and capital does not spring from the structure of the production process or from the structure of the economic process. In general the latter process

demonstrates that labour and what we are accustomed to call capital are intermingled; it shows that they are inseparably linked”.

In short run - value added can be seen as pie which distribution is determined by contracts the enterprise has signed either with the providers of external financial capital (loan contracts) or with its employees. Once all the claims have been satisfied, the residual part of value added goes to the so-called invested capital, i.e. the part of financial capital exposed to risk. According to most of world legal orders - when value added is insufficient to cover all claims - labour claims are privileged and have to be paid for first. The legal hierarchy of claims may suggest that contemporary business practice is coherent with the basic principle of Catholic Social Teaching, namely the prominence labour over capital. This however is a misleading perception of enterprise behaviour as shown when the analysis is extended to long run perspective.

The level of returns on invested capital required and expected by the providers of funds, is one of the most important parameters driving the enterprise decisions in the field of factor-mix. Thus, in response to long term changes in factor prices, enterprises will modify their factor-mix so as to achieve the required returns on invested capital, i.e. obtain the desired the distribution of value added. For instance, when the relative price of debt capital for the enterprise is falling, all things being equal, the enterprise will be able to adopt more capital-intensive technologies. It will engage in such policy when either it allows for increasing the returns on invested capital, or it gives to the enterprise technological advantage. The shift toward more and more capital intensive technologies, due to easier and cheaper access to capital markets (both credit and stock) ones explains the paradox according to which share prices rise when big enterprises announce massive layoffs.

In consequence, in longer term perspective, labour appears as instrumental in producing a required level of returns on invested capital and pre-eminence of capital over labour seems more to be the case than the reverse. This practice stands in contradiction to the basic principle of Catholic Social Teaching.

The share of labour in value added is almost by ten percentage points higher in Small and Medium Enterprises than in Big Enterprises in Europe (64.7% and 73.1%) and almost fifteen percentage points in Japan (57% and 73.4%), for the US data are missing. In ten years perspective, the gap between the two populations of enterprises seems to be steadily widening in Europe at least [1].

According to a recent study of the sources of the European Competitiveness « In the European Union, capital/labour substitution explains nearly half of the increase in labour productivity (i.e. total value added/amount of labour - PHD), whereas in the USA it has contributed only marginally to labour productivity growth. In Japan, it explains almost two thirds. ... There is evidence that the relative prices of labour rose faster in Europe than in the USA. Wages increased more than the prices of machinery and equipment. Real interest rates did not differ much between Europe and the USA in the last decade.» [2].

Although the European Commission's conclusion acknowledges the importance of the drive

towards a higher capital intensity due to falling relative prices of capital, the second part of the argument is not convincing, for two reasons at least. First it focuses only on the changing level of wages to explain relative prices, without looking closely at the capital side where - according to our hypothesis about the capital market globalisation process - capital costs differ not so much across countries but across categories of the enterprises. The main divide differentiates the cost of debt capital between the enterprises that have access to global markets and the others. Second, the relevant capital price from the enterprise perspective is neither fully reflected by the « real interest rate » nor only by prices of equipment, but the nominal cost of capital.

### **C. The creation of Financial assets in global markets [3]**

Attention must be drawn to the dichotomy between the physical and financial meanings of the concept of capital. From a business perspective, financial capital means more, than equipment, specially in present post-industrial world dominated by intangible assets.

According to standard economic theory, at a given moment of time the physical amount of total available capital is limited. As for any scarce resource, market forces of supply and demand will allocate the stock of capital across the economy, and determine its price in accordance with its productivity and scarcity. In real business life, where only financial capital counts, the critical question to ask is to know whether it makes sense to consider the financial capital as a limited stock. If this were not the case, if there were reasons to consider the supply of financial capital as not being limited, then the classical price mechanism - postulated by theory - would have difficulties in operating. In consequence, the whole construct of « relative factor prices » as being objective, i.e. not enterprise specific, would be put in question.

Financial asset is created when two actors exchange money for « a piece of paper » which stands for a bundle of property rights, either on physical goods or on other financial assets. The difficulty in analysing the financial assets creation comes from the fact that their almost infinite variety combines into a multi-layer pyramid. For instance, less than 10% of all transactions on stock markets generate financial flows that go to the enterprises against new shares, 90% of these transactions are « second hand » transactions.

Without entering the tricky field of statistical measurement problems, a general point can be made. Due to the prudential regulations, financial institutions cannot legally extend their lending infinitely, however technically speaking, their margin of manoeuvre in creating financial assets is very important. The willingness to take additional risks is the only truly limiting factor in creation of financial assets. In other terms, additional financial assets can be created instantly, by the sole virtue of an agreement (contract) between two actors, each of them acting within a specific framework of business and legal constraints and objectives. In general, in times of increasing globalisation, providers of funds seem to prefer certain type of clients to others : namely very large enterprises do not have any problems in raising additional funds, when small and lesser known companies are confronted with a kind of

credit rationing.

The global capital market offers an almost unlimited supply of funds to the very big enterprises known as « the global players ». Not only these multinational companies have access to funds at very low costs, but also they are structurally able to locate their productive capacities in regions where labour costs are low. The drive of these enterprises to substitute capital for labour is only limited - which may sound paradoxical - by the low cost of labour. In any case, within a given set of feasible factor-mixes, these enterprises will determine the amount of labour they use once they know their cost of financial capital, not the other way around. The situation for the enterprises that do not have access to unlimited supply of funds, but are exposed to more or less open rationing, is different : the amount of available capital will determine the amount of labour used.

For each of the two groups of enterprises, the readiness of financial institution to provide capital (price and quantity) will determine the relative factor prices the enterprise is confronted with, and thus, indirectly, the level of employment. For both groups the same capitalist logic applies aiming at the highest possible return on invested capital. In both cases, as said above the principle of prominence of labour over capital is violated. The only difference will be in factor-mixes used : the enterprises for which capital is cheaper, will tend to substitute capital for labour more extensively.

## **D. Conclusions**

Three sets of conclusions are drawn here. Those referring to a new program of research, those aiming at economic policy on the labour market, and finally the most important ones directed towards the Catholic Social Teaching.

### **1. Towards a New Research Programme**

Two insights developed above are worth recalling. At this stage, these preliminary conclusions have to be further validated by research and observation. They have to be used as starting points for a research programme that would take stock of the fundamental changes in the way world economy functions : nation-states have lost a lot of their supreme, many economic and financial phenomena are trans-national and global. The multinational enterprises - global players - seem to be today the major structuring force of the world economy. The meaning and consequences of such a shift of power from states to markets and enterprises have to be properly grasped and conceptualised. Time is ripe to focus research on mechanisms of interdependence between national economies, global markets and the very big enterprises. These new realities require new concepts and data which, in turn, should be confronted, in a constructive way with received economic theory, in order to up date it where possible. This is the only way to give policy makers instruments they need.

The first of preliminary conclusions links the issue of relative factor prices to the least discussed effects of globalisation, i.e. the emergence of a global capital market. The non-

financial enterprises able to tap this market are no more than a couple of thousands worldwide. They are the biggest enterprises, the best known and also with the best financial management. Below, this global market, a whole array of more limited, specialised or local markets provide financial capital to small and medium-sized enterprises. These markets differ, in many ways but are all interdependent, connected to the global market by a pyramid of intermediaries. The question at which level of the pyramid (i.e. at what price) a given enterprise can rise founds depends, among other factors, on the size, performance and reputation of the enterprise. In other words, the cost of capital is - in present day - much more enterprise specific than the received economic theory suggest. The most urgent open questions in this field concern :

- the consequences on the enterprise level that differing factor prices have on factor-mix used ;
- the received but not properly investigated efficiency of financial markets in allocating capital .

The second preliminary conclusion is not new . It reminds simply that the factor-mix used - at enterprise but also on national level - depends on relative factor prices. As the price of capital is more and more enterprise specific, the capacity of governments to steer the national relative factor prices only by regulating the labour market are very limited. The effectiveness of this steering, and its impact on factor mix used by national enterprises, depends as much on the evolution of capital prices as on the labour regulation per se. Future research should focus on ways and methods - and also their social and economic consequences - that could increase the cost of capital to enterprises when lowering their labour cost. A more even sharing of the overall burden of taxation between the two factors could be a direction.

Such a new research programme is in line with the expectations of CST, in LE (13):

“Obviously, the antinomy between labour and capital under consideration here-the antinomy in which labour was separated from capital and set up in opposition to it, in a certain sense on the ontic level, as if it were just an element like any other in the economic process-did not originate merely in the philosophy and economic theories of the eighteenth century; rather it originated in the whole of the economic and social practice of that time ..... The only chance there seems to be for radically overcoming this error is through adequate changes both in theory and in practice, changes in line with the definite conviction of the primacy of the person over things, and of human labour over capital as a whole collection of means of production”.

## **2. Unemployment policy : beyond the deadlock**

The arguments developed in this paper suggest that relative factor prices are critical in determining the quantity of labour the enterprises producing within national boundaries will

use. In order to increase the labour intensity of production, governments - specially European ones - strive at lowering the absolute cost of labour to the enterprises. This however is only part of the story. The other avenue would be to modify the relative price of labour by increasing the one of capital.

In consequence, in terms of policy response, answers to unemployment have to be looked for not only on the labour market, but also on capital market. It is not impossible that labour intensity of production would grow if interest rates grow. Very little has been attempted in this direction. Even at policy level, the prominence of capital is accepted as given, as a fatality.

### **Typology of possible regulations on factor markets and their consequences for the pre-eminence of labour over capital**

	Labour regulated	Labour unregulated
Capital regulated	National solutions, prevalent until late 1970s in Germany and France, pre-eminence of labour over capital not impossible	To be experienced ; in theory would allow for the pre-eminence of labour over capital. Has to be attempted on a global level, national regulations would either prove ineffective or would reduce the competitiveness of national SMEs.
Capital unregulated	European situation - in most countries - since early 1970s - high unemployment , high involvement of social security, rather low level of exclusion; pre-eminence of capital over labour.	American situation : low level of unemployment leading to an apparently high level of « poor employment » ; pre-eminence of capital over labour

The table presents a typology of regulations that influence the factor-mix used by enterprises. This chart simplifies reality, but hopefully not beyond the point that would make it meaningless. Out of the four possible solutions, three have been experienced in recent times. National regulation of capital and labour markets was normal in period, between late 1940's and early 1970's. Since then a trend in deregulation of financial and capital markets has started for the sake of higher level of economic efficiency. For the global enterprises, it meant that the cost of capital they were charged by the markets was allowed to escape most of national regulations. All happened as if the shift towards global markets was exogenous, these markets escaping, out of the sudden, the reach of any single national government. Although, the philosophical premises of this shift have never been properly analysed, its economic consequences have been more often than not taken for ineluctable and hence not assessed on their own merits. In other words, the pre-eminence of returns to capital over any other concern has been established as natural.

The OECD governments have reacted to this change in two very different ways. The American reaction, specially visible in 90s, was to free the labour market from almost any regulation. As mentioned in the above table, the consequences have been clear : the fall in the overall rate of unemployment but also the rise of the « working hours ». Most of the European governments took a stand almost opposite to the American one : strengthening of minimal regulations of the labour markets coupled with a high involvement of social

security payments to the unemployed or marginalized. Here also the results are well known : comparatively high level of unemployment but rather low level of social exclusion.

Out of the four combinations of labour and capital market regulations, three have been experienced in recent times. The remaining fourth solution, combines a regulation of capital markets with the absence of regulation in labour markets. In theory at least, such a solution could help restoring the pre-eminence of labour over capital, and bring the economic activity in line with the postulates of the Catholic Social Teaching. Without any doubt, this solution seems today much less feasible than before 1970's when capital markets were national not global. Today such a move would require a close co-operation of at least the G7 governments. By imposing a world-wide minimal price of capital - analogous to what the OECD governments are advocating today for labour markets when they call for developing countries to accept the so called « social clause » in WTO agreements - factor mix used by enterprises could be steered in way as to lower (globally and locally) unemployment.

In order to make the « fourth solution » workable and appealing to policy makers, the research programme proposed above is more urgent than ever.

### **3. Catholic Social Teaching and the challenges of finance in the post-industrial age**

As until now the Catholic Social Teaching has kept outside of the world of finance. Time has come to recognise the crucial importance of finance in present day world, and the specific conditions under which the financial system operates. Capital today has little in common with the « tool of production » observed by Leo XIII when he was preparing *Rerum Novarum*. Present day capitalism is build on the pre-eminence of financial capital - whatever is its real counter-part - over labour. This situation has many roots and consequences for the contemporary world. Time seems ripe for Catholic Social Teaching to take stock of these changes, and to address these issues with its usual reserve and prudence. In taking up this challenge, the Catholic Social Teaching would make a move towards the expectations of many Christians, professionals of finance, who strive for guidance in order to give a meaning to their everyday work.

Among many economic issues linked to the process of « financiarisation » that would require a fresh look by Catholic Social Teaching, three are specially worth mentioning :

- the question of financing intangible assets, of the related property rights and particularly of « human capital » ; *Laborem Exercens* mentions the issue rather than addresses it (32): “In our time, in particular, there exists another form of ownership which is becoming no less important than land: the possession of know-how, technology and skill. The wealth of the industrialized nations is based much more on this kind of ownership than on natural resources.”
- the process of financial asset creation, which looks more and more like a creation ex nihilo of assets that, once created are entitled to returns by their sheer existence;

- the more and more widely spread aspiration visible in Western societies to use financial assets as insurance against any kind of danger or risk the future might bring. In this perspective, return on capital becomes the corner stone most of not only economic but also social institutions. The moral foundations of such aspirations both on individual and social level should be assessed.

[1] « Situation Financière des entreprises européennes » in **Economie Européenne**, Supplément A, no 7, July 1997.

[2] **The competitiveness of the European industry : Report 1998**, European Commission, 1998, (ISBN 92-828-4964-3), p.12-13.

[3] This part of the argument is developed in some length by Dembinski, Paul « The safe landing of financial balloon is not impossible » in **Finance & Bien Commun/the Common Good**, autumn 1998