

# **Money and production :**

## **the wage-unit as the standard of value**

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*Summary:*

In *The General Theory*, Keynes argued that wage-unit may be "regarded as the essential standard of value". Unfortunately, he never clarified this concept, particularly regarding the nature of the link between wage-units and labor-units. Many authors treat the wage-unit as the price of a unit of labor, however this interpretation is not in accordance with the principle of effective demand. According to Keynes's definition, the amount of wages depends neither on length of time that labor is used nor on physical productivity of labor but rather on the entrepreneurs' expectations expressed in money. To recognise fully that the wage-unit is the true economic unit of measure requires a clear understanding of the nature of production in our wage economies. In the wage system, utility is immediately set in a numerical social relationship which is first stated under the money form of the wages. The wage earning relationship involves goods and money that cannot exist independently in disjointed economic spheres. Money does exist in society insofar as it is related to the goods created by production, and the goods exist as economic goods insofar as they are integrated in money. From this, it can be inferred that the unit of value is the wage-unit: money wages being made up of money-units, the economic unit of measure is the money-unit into which is embodied the physical product. Created in each period of production, and in each individual firm, the wage-unit is the unit measuring social utility and through it employment and therefore labor and its physical productivity.

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## Introduction

The economic issues of value and measure are hardly debated these days as if the topics were exhausted. The want of a rigorous theory of measure favors the use of vague and undetermined units of measure and more or less explicit references to some major theories of value. Many authors declaring their faith in Keynes's legacy seem to adhere, in a more or less explicit manner, to the theoretical approach of classical economics as denounced by Keynes himself<sup>1</sup>. Neglecting the theory of value, as noted by R. L. Wray<sup>2</sup>, they focus on some profound improvements of the theory of money and prices. Such an approach does not seemingly help clarify the links existing between what is commonly termed the real on the one side and the monetary on the other. Such a definite position creates a certain number of difficulties in comprehending the *essentially* money feature of our economies of production.

Keynes's lack of precision and hesitation in defining measure, let alone the clout of neoclassical thought, evidently account for the need felt by both post and neo Keynesian economists to discover micro-economic foundations in macroeconomic phenomena, rejecting the intense logic of the principle of effective demand.

The originality of Keynes's theory is that it is beyond the framework of a theory of value preconceived in real terms<sup>3</sup>. Keynes asserted the immediate money composition of economic quantities; he definitely relied on our economies founded on the wage-earning system and not on the relations between independent workers. Setting forth the concept that the wage-unit is the measure unit of economic quantities is particularly pertaining to that approach. We believe that is one of the pivotal points on which the great theory of a money economy of production Keynes wanted to build should depend.

In *The General Theory*, the definition of the main economic magnitudes is based on the wage-unit that may "be regarded as the essential standard of value" (Keynes, 1973a, p. 302). However, Keynes never clearly established the concept and some authors think the wage-unit is a postulate allowing the reasoning based on the hypothesis of fixed prices (part I).

To grasp the bear of the wage-unit concept, the basic elements typifying production in our money economies should first and foremost be concentrated upon. In the light of the production theory developed by Bernard Schmitt<sup>4</sup>, we will endeavor to isolate the elementary principle organizing exchange relations in our wage-based capitalistic economies (part II). We will then see that as well as offering simultaneously a particular physical form and also a

money form, the definition of income calls for a measure unit shaped during the fusion of both its physical and monetary forms into a sole numerical expression: the wage-unit (Part III).

### **I- The wage unit in *The General Theory***

In Chapter 4 of *The General Theory*, Keynes still hesitated between formally adhering to the labor theory of value<sup>5</sup> and his original conception of measure in money wage-units.

Dealing with the employment theory, Keynes offered “to make use of only two fundamental units of quantity, namely, quantities of money-value and quantities of employment.” (Keynes, *id.*, p. 41). Those two quantities are respectively expressed in wage-units and labor-units. If the first of these quantities was readily homogeneous, Keynes noticed that the second one was not so in itself, but it could be homogenized if associated to the workers’ remuneration. “We shall call the unit in which the quantity of employment is measured the labour-unit; and the money-wage of a labour-unit we shall call the “wage-unit”” (Keynes, *id.* p. 41). Wage-unit is not only the measure unit of money quantities, it is also the link relating employment quantity and money wage.

#### *Wage-unit versus labor-unit*

The question is to understand what causal relation there is between the labor-unit and the wage-unit. Is the measure of wages dependent on labor or rather, is the measure of remunerated labor given by the wage ? On the first point, Keynes’ answer is initially positive. It is consistent with his recognition of what he calls the first fundamental postulate of the classical theory, namely : “*The wage is equal to the marginal product of labour*” (Keynes, *id.* p. 5). On the second point, he does not take a firm stand as an analysis of a few essential passages of Chapter 4 of *The General Theory* reveals. He wrote :

“For, in so far as different grades and kinds of labour and salaried assistance enjoy a more or less fixed relative remuneration, the quantity of employment can be sufficiently defined for our purpose by taking an hour's employment of ordinary labour as our unit and weighting an hour's employment of special labour in proportion to its remuneration; *i. e.* an hour of special labour remunerated at double ordinary rates will count as two units.” (*id.* p. 41).

In this passage, the wage-unit indisputably determines the labor-unit since a labor which is paid twice as an other is declared more skilled and so, implicitly more efficient. However, it is interesting to notice how singular Keynes’s reasoning is. As a matter of fact,

since Keynes first defined the ordinary labor-unit and its remuneration, he could logically be expected to define skilled labor and its remuneration. Yet, he chose a different path; ordinary labor is somehow defined against special labor, or more precisely in relation to the *remuneration* of skilled labor. Nevertheless, the labor-unit cannot be treated like a fundamental measure unit, since it is deduced from the amount of the money-wages.

However, a few lines further down things are said in such a way it questions the preceding results.

"The assumption of homogeneity in the supply of labour is not upset by the obvious fact of great differences in the specialized skill individual workers and in their suitability for different occupations. For, if the remuneration of the workers is proportional to their efficiency, the differences are dealt with by our having regarded individuals as contribution to the supply of labour in proportion to their remuneration; ..." (*id.* pp. 41- 42).

The first proposal brings us to think the workers are remunerated at their physical productivity, implying that the units of physical labor are homogeneous straight away. Yet, by the second proposal they are not so since the various elements of labor are estimated on the basis of remuneration, not on duration. Neither of the two definitions prevails, they simply overlap and we cannot know what is the nature of the link between them.

Confining *The General Theory* to such a literal analysis would lock us into a vicious circle. According to Keynes, the calculation of labor productivity would rest on the relation the product has with the labor-unit, but the determination of the labor-unit would imply that a worker's remuneration, namely his product, should be known beforehand. It then cannot be decided which of the two surpasses the other, wage-unit or labor-unit. Labor-unit could be accepted as a measure unit provided it were admitted that reducing skilled labor to units of unskilled labor is possible regardless of the workers' earnings<sup>6</sup>. It is obviously not so. It would further have to be admitted that labor has the capacity to shape values, which is unsustainable to any economist even to labor-value theorists.

A way out is discovered when the question is reinstated in the spirit of *The General Theory* and examined from a macroeconomic angle, as Keynes himself incites us to do when he wrote that:

"It follows that we shall measure changes in current output by reference to the number of hours paid for (whether to satisfy consumers or to produce fresh capital equipment) on the

existing capital equipment, hours of skilled labour being weighted in proportion to their remuneration." (Keynes, 1973a, p. 44).

Things seem to clear up here. Although he retains the money-wage and the labor-unit as two separate measure units, he nonetheless defines the measure of the current product in terms of remuneration of the factors of production. The measure is obviously not based on physical work duration but on *remunerated* labor. It is the remuneration of skilled labor that allows the economic - not the technical - evaluation of the exercise duration of skilled labor.

Yet, it can be thought that the level of remuneration may depend on labor duration or on the quantity of goods produced during a given interval of time. As Keynes borrows much from the first postulate of the classical theory, one may consider whether the wage is a price and, as a consequence, whether the wage-unit is not a particular price from which the whole system of relative prices would be determined.

*Is the wage-unit a price?*

A fixed reference point is somehow needed for the system of relative prices to be determined. It is the role ascribed to the wage rate by Hicks (1937) and Hansen (1967) in the construction of the IS-LM model. As we know, the model relies on the hypothesis of a fixed wage rate<sup>7</sup>. It is not our place here to discuss the legitimacy of this hypothesis since even before posing the question, it is necessary to know if in the Keynesian logic wage may be interpreted as a price.

Such an interpretation would hint at the existence of a labor market on which the price of a labor-unit would be decided; the employment level and the amount of national income would derive from this price.

The type of transaction that might take place on the labor market would be either the exchange of money for labor (or its force etc.) or the exchange of labor for a certain amount of goods whose value would be expressed by the real wage, that is the nominal wage related to the general price level. Keynes supports neither hypothesis.

Any exchange taking place between money and labor suppliers would mean that the wages are obtained from prior money capital, implying that money has an intrinsic value and that it would have an existence of its own like any good. In this instance, money would not be *bank* money. This is obviously not Keynes's conception as his *Treatise on Money* and the 1937 articles on the "finance" motive indicate<sup>8</sup>.

Should the second point be proven, employment quantity would have to be conceded as the outcome of the confrontation between goods suppliers and labor suppliers. That would lead, as the general equilibrium model argues, to the simultaneous determination of both real wages and employment on the labor market. The principle of effective demand denies such a market relation.

In Chapter 5 of *The General Theory*, Keynes actually explained that employment level only result from the entrepreneurs' expectations<sup>9</sup>. As for real wages – namely the share of the total output finally returning to the workers – they are known solely after the work is done and the prices are realized on the markets. If one wished to keep the representation of a market as a space of expected or virtual quantities, the level of realized prices, no matter how virtual the space, would nonetheless depend on the prior determination of the unemployment level and nominal remuneration of the factors. Then, the level of the real wage – synonymous with labor price - cannot determine employment even if it were anticipated. Hence, the famous hypothesis of fixed wages, wrongly attributed to Keynes, would have no influence on the logic of the income formation process. It thus can be declared with S. Diatkine that: “ the Keynesian measure in wage-units is no fixed price measure and does not imply a structure of fixed price whatever (S. Diatkine, 1989, p. 169).

The representation of an economy where would exist a labor market on which pre-existing pieces of wealth, whether physical or monetary, would be exchanged contradicts the explanation of the formation of a *net* macroeconomic income. In such a context, production would actually be a reproduction of already existing values, since producing would merely consist in exchanging already existing wealth. It also means that consuming would not be the final act of destruction of values but another manner of producing, for example “human capital”<sup>10</sup>. The economic theory would accordingly be locked into a model analogous to that of Lavoisier classical physics law that nothing is ever created and nothing is ever lost; it would then be totally impossible to show how economic wealth is generated.

Moreover, from a purely logical standpoint, if the wage-unit were expressed in price, the Keynesian conception of measure would be inconsistent. The wage-unit cannot simultaneously be the measure unit of economic quantities and the variable of adjustment of these very quantities. As it happens, no such inconsequence taints Keynes's theory.

In Chapter 19, "The general theory re-stated", he presents the wage-unit as an independent variable that is "determined by the bargains reached between employers and

employed..." (Keynes, 1973a, p. 247). That means there is no market (in the classical sense) where labor (or its force...) would be supplied and demanded. One consequence is that the relevance of the wage-unit concept is not to be found in "the theory of the individual industry" (*id.* p. 293), but in "the theory of output and employment *as a whole*" (*id.* p. 293). It is no use trying to find micro-economic foundations in the determination of macroeconomic magnitudes.

To the question whether the wage-unit is like a price, Keynes's answer, even though it is not direct, is quite plain; it is to be found in the definition of effective demand.

"Furthermore, the *effective demand* is simply the aggregate income (or proceeds) which the entrepreneurs expect to receive, inclusive of the incomes which they will hand on to the other factors of production, from the amount of current employment which they decide to give." (*id.* p. 55).

Firms pay wages on account they expect to recover, with profit, the amount of remunerations they paid. Whatever the balance of power between the entrepreneurs and the workers or the state of competition, *they* will decide unilaterally of the amount of wages and employment quantity. The wage amount depends neither on labor duration nor on physical productivity but on the entrepreneurs' expectations expressed in money.

#### *The wage-unit and the principle of effective demand*

In comparison with the classical tradition, the principle of effective demand commands reversing the perspective allowing for two possible formulations: 1 – economic quantities are immediately given in money and not in physical units, 2 – the economic measure unit is not first and foremost physical, it is immediately money. Besides, it is revealing that in Chapters 6 and 7 of *The General Theory*, the definitions of income, saving and investment are definitely built on the idea that the wage-unit is the measure unit of these quantities, with no reference to the price system.

Since it is based on the equality of total supply and demand, the principle of effective demand commands that the purchasing power exerted on goods markets is strictly similar to the one formed in production, whatever the price level. In other words, the national income measured in wage-units is one; whether it is considered from its formation or from its spending, it *is* the value of what is produced and bought: "Income = value of output = consumption + investment" (Keynes, *id.* p. 63). It is the measure in income units or in wage-units, which amounts to the same thing, that allows establishing the equivalence between the

opposite flows of the income-expenditure process that comes directly from the principle of effective demand<sup>11</sup>.

A purely macroeconomic analysis helps understand that employment quantities are not defined in technological terms but primarily in monetary terms as the employment quantity is itself measured from the *remuneration* of the workers actually employed. We think this was Keynes' point of view when he defined the employment function.

"The *employment function* only differs from the aggregate supply function in that it is, in effect, its inverse function and is defined in terms of the wage-units; the object of the employment function being to relate the amount of the effective demand, measured in terms of the wage-unit, directed to a given firm or industry or to industry as a whole with the amount of employment, the supply price of the output of which will compare to that amount of effective demand." (Keynes, *id.* p. 280).

Admittedly, this analysis may integrate the balance of power and conflicts between workers and entrepreneurs whose ultimate target is the determination of everybody's share in terms of profit for some or "real wage" for the others. However, all this cannot be interpreted as market functioning, no matter how distorted and imperfect. The stakes of the debate between workers and employers is not the amount of production but its distribution, which is only virtual at the moment when the quantity of employment is decided on. "Workers are handicapped in this process because the achieved real wage can only be known after the event as a function of capitalist pricing decisions." (Arestis P., 1992, p. 89). The share going to workers, what is generally called the real wage, is unknown until all the products have been disposed of on the market. It is the amount of nominal paid wages that marks the effective involvement of entrepreneurs in the process, in relation to the context of technical, social or economic constraints, etc. Although it is the stake of much debate between workers and entrepreneurs, the final distribution of the product is in no way pre-established. As a consequence, employment and the combination of labor-units that vary with their specialties and efficiency are directly related to the amount of the nominal wages and not to the real wages. The logical relation that presides over the functioning of our wage-earning economies is certainly: the employment unit is measured in wage-units and the labor-unit comes from the physical division of employment units:

**Wage unit → employment unit → labor unit.**

However, Keynes did not clearly extrapolate these relations whose comprehension commands a clear understanding of the true nature of production in our economies where the wage-earning system prevails.

## **II- Production, consumption and the utility principle**

Before proceeding any further, it is necessary to return to the very meaning of the notion of production. Surely, the act of producing makes sense only when related to its finality, which is to fulfill people's needs. The factors of production do not generate a product, namely a set of goods that has a social value, therefore an economic one, as much as their activity is achieved in consumption. As F. Quesnay wrote:

"Then, it must be admitted that the products from the earth are no wealth in themselves, they are a wealth insofar as men need them and they are tradable: they thus constitute wealth in proportion to their consumption and the quantity men need." (F. Quesnay, 1969, p. 221).

To put it differently, consumption is the end of any production and consumption is a moment of production<sup>12</sup>: "the expectation of consumption is the only *raison d'être* of employment..." (Keynes, 1973a, p. 211)

### *Labor and utility form*

The classical tradition associates production with labor done by men caught in exchange relations. The outcome would then be measured by the work time needed to produce them. However, even though production actually requires summoning natural forces and natural matter, it cannot be reduced to that. We can quote D. Ricardo:

"Utility then is not the measure of exchangeable value, although it is absolutely essential to it. If a commodity were in no way useful, -in other words, if it could in no way contribute to our gratification,- it would be destitute of exchangeable value, however scarce it might be, or whatever quantity of labour might be necessary to procure it." (D. Ricardo, 1951, p. 11)

Foreshadowing the neoclassical conception of production, J.B. Say wrote:

"The output is never a creation of matter but is the creation of utility. It is not measured by the length, volume or weight of the product but by the utility it has been conferred." (J. B. Say, 1972, p. 51).

There is no doubt that it is not matter which individuals destroy when they consume but the *particular form* given to matter. These forms are the creation of men's imagination in which matter is introduced; we call it utility<sup>13</sup>.

In the economic space, matter will exist provided it supplies some particular form likely to fulfil people's needs. Labor itself is taken into account because it is achieved in a specific, socially validated form. Thus, the economic world does not overlap with the physical world; it is *created* by men as they progress in production. Therefore, the economic activity does not take place in a world whose boundaries are made up by people's endowments acquired beforehand; utilities do not precede the exercise of human labor and do not outlive consumption inherent to the destruction of their form. Producing is not merely moving mechanically matter into space, it means creating a space imagined beforehand that responds to a certain type of relations men establish for themselves.

Production is thus characterized by: 1- the exercise of a physical activity that transforms matter: labor, and 2- the creation of utility forms conceived beforehand. As B. Schmitt showed "...both teachings [classical and neoclassical] are true in their synthesis: labor introduces matter into the utility form" (B. Schmitt, 1984, p. 447). The theory of production is then going to consist in explaining the formation of the economic space and so explaining the measure of produced utilities. Such a project is nothing new as it is rooted in the history of economic thought.

We can indeed isolate a sort of stratification in the definitions of wealth offered by economists. The Physiocrats focused on matter, the classics on the physical activity of men transforming matter, the neo-classics on the utile form of transformed matter and Keynes on the money dimension of the produced utility. Economic wealth combines it all. However, these four strata are not linked up in a causal relation, from matter to the money expression of the goods. Utility is not defined by matter or labor nor is the economic measure of the goods given by physical utility. Yet, utility does provide matter and labor with their social character, but utile objects deprived of measure have no economic existence.

Utility is traditionally conceived of as a physical and individual property of commodities. Thus, utility would be determined by the more or less great satisfaction individuals (seem to) enjoy when consuming. There are two consequences to this. The first one is that utility is not objectively measurable and so, the goods cannot be compared. The

second one is that output and consumption being merged in the “satisfaction flow” brought by goods, the income would be strictly beyond reach<sup>14</sup>.

From a macroeconomic Keynesian perspective, things should be analyzed differently. Utility cannot be interpreted as an individual dimension of commodities. In our money economies, both production and consumption are disconnected in time and space. The reason is that wages are paid in money. That explains why exchanges taking place on the different markets are achieved in money. It has been a common fact to assert that the wage-earning system is characterized by distancing workers and their physical product, while the latter obtaining its monetary expression. Such remoteness results in the formation of money incomes whose very existence requires explaining the relation created between the objects produced and money. Money has indeed the capacity to unite the different aspects of the produces in an undifferentiated numerical form. Moreover, the goods derive their economic character from the fact they are part of an objective and unitary measure of their production.

#### *The wage-earning relationship*

The wage-earning system is not the distortion of a labor division structure within which individuals work separately and then, possibly exchange their different products. In such a society of independent workers, labor reveals divided when products are bargained on markets. On the other hand, the wage system is the immediate expression of this division within which each worker is an element belonging to a group of workers seen as homogeneous. As Keynes points out, the units of employment are homogenized by their remuneration ( *cf.* Keynes, 1973a, p. 41).

The workers cannot consume directly the goods they have produced since, as wage recipients, they do not own them. The wage earning system denotes that the various pieces of labor are presented in an abstract quantitative way, without any reference to the time devoted to their activity nor to the quality the objects they have generated. In such a system, all pieces of labor are reduced to a common expression as if there were comprehensive unique labor that may be fragmented, segmented etc. Because they first receive a homogeneous money income for the group, the workers are inevitably related through their products. A comprehensive wage-earning system immediately implies the establishment of objective relations between workers whatever the firm that employs them. Evaluating individuals’ needs is in no way subjective. It seems to us that the very significance of the principle of effective demand that entrepreneurs assign, by their monetary expectations, an objective measure to the agents’

needs. The moment wages are paid, everybody's wage appears in an abstract numerical form, money, that will constitute a closed space within which trading may take place.

The generalized exchange that hinges on the wage-earning system supposes the very *abstraction* of labor. As Marx has shown, in our capitalistic economies labor is not seized in its concrete form. Though he never perfected his demonstration, Marx established the principle that everybody's labor is reduced to an undifferentiated expression hiding the conditions of its real exercise. Exchange relations are not based on concrete labor but on its product expressed in money, in other words, the money wage. Therefore, it is no use trying to relate goods to labor duration or its qualification to obtain its measure<sup>15</sup>. It is Keynes' approach: "...hours of skilled labor [are] weighted in proportion to their remuneration" (Keynes, *id.* p. 44).

As an element of labor division, each worker works for himself then he does not make the commodities he needs. As he contribute the formation of total output in proportion to its remuneration, his work is proportionate to the one of the others whose make the things he needs. Each worker's product is useful *insofar* as it is useful for others. It is deprived of any value unless it is grasped in the context of interpersonal relations, the utility of the goods is not only undetermined; it is *non-existent*. Utility is not defined by labor nor is the economic measure of products given by labor duration; it is the measure of products as part of the generalized exchange that confers them their utility and that, in the same act, socially validates the labor done in the process. Therefore labor cannot be said to be the cause or even the substance of value; value is a numerical form allowing the comprehension of labor in its various dimensions. At last analysis we can say that the origin of value is paying wages, because it is the action by which objects and money are integrated.

Therefore, it can be inferred that the quantitative relation that unites the factors of production with the goods is not directed from the physical measure of the factors toward the goods, as the classical tradition has it. In our economies, the measure of products provides the measure of the factors. Indeed, the factors generate the goods but the factors' labor will itself be measured by its result, by the quantified utility of the product. The factors cannot create social value unless the exercise of their activity is *achieved* in a specific useful form whose mark is the wage. The income thus formed is the tangible proof of the social recognition of the product and through it, the activity it derives from. Consequently, utility is directly a numerical social relation whose first expression is the money form of the wages paid to the

workers. In that sense, utility is not subjective and its principle commands the measure of products even before they are transferred onto the different markets.

### *The utility principle*

The utility principle responds to the process that each individual's product is economically useful provided it is expressed in an undifferentiated numerical form since labor division demands relations of equivalence between all individual productions. Therefore product is defined by two distinct forms, the *physical forms* of objects and a numerical form, the *money form*, the first ones being heterogeneous while the latter is homogeneous.

Whatever the economical theory referred to, it is remarkably conceded by all that utility is always found in payment. This is that in our wage-earning economies we accede to physical products via their abstract numerical form, namely their monetary form. This obviously poses the question of the nature of money. This point will not be discussed here. We will merely rely on some results established by B. Schmitt<sup>16</sup>.

Keynes' theory asserts the utility of money in so far as it is a mediator in exchange relations, "...the peculiarity of money [is] that its utility is solely derived from its exchange-value..." (Keynes, *id.*, p. 231). Then it cannot be added to the goods as part of the national wealth. It has no existence of its own and cannot be dealt with an asset<sup>17</sup>. Created *ex nihilo* by banks, it holds neither intrinsic value nor proper utility if it is not associated with physical products. It is straight away a numerical form allowing the utile expression of what is produced. Bank money first appears as a set of numbers that will generate a piece of homogeneous space, that will welcome exchange relations between economic agents.

As money is only the numerical form of the goods, it cannot compete with the physical assets in the course of exchange relations since it is attached to them.

"The correspondence between money and the goods must be taken for what it is. It is not a relationship between values, since money is deprived of any positive value, however defined it is. The terms of the relation are the goods on the one hand and money on the other, but not the value of products or the value of money. The money value of the goods produced is not the relation between the value of money and that of the goods but the mere money measure of the goods: only the *relation* is a value or equivalence as the terms of the relation are strictly physical" (B. Schmitt, 1975, pp. 31-32).

Thus, if money is an exchange intermediary, it does not act as one that would replace, more or less temporarily, another good in agents' possessions. It is one as a form of the

products. In reverse, products are formed owing to money; outside money, they would be shapeless; therefore, economically undefined. Money and utility reciprocally presuppose each other in production.

Money is the coherent reflection of the goods produced somehow, their nominal expression. The money unit can be strictly speaking the measure unit of utility since it is its form. However, as the factors of production are paid in money, the latter separates the physical production from physical consumption and everything indicates the output consists in a certain number of money units. Thus money appears (and disappears) with the goods and is presented as their value form placed in time; it also means that money tenor is the physical output itself.

Relating money and the physical goods is achieved in a particular operation called paying wages. At that time money really exists as an income and becomes real<sup>18</sup>. It is this integration which is realized in the formation process of wage-units.

### **III- The wage-unit, an objective utility measure**

It is generally admitted that in an economy of independent workers, each worker works for himself since he directly receives the fruit of his activity in the goods he has manufactured. In reverse, a wage earner is said to work for an employer. Such a presentation of wage-based relations is not so accurate. Truly enough, employment is subjected to entrepreneurial decisions. In that respect, there is “asymmetry” in no way market related, but existing in the fact that the power to decide of production is in the employers’ hands. It is also true that firms allow workers to produce by letting access to production means and settle by expectation the level of the output in the perspective of raking in profit. However, these social relationships as well as the distribution of the product are no factors that determine the value, that is the measure of the products.

#### *The net product*

Even when they earn wages, workers receive their product directly. Like self-employed people, they proceed to a bargain for themselves. They must sell the goods they have produced to get the money equivalent. Wage recipients do not sell the useful goods they have produced as the latter are converted into money by means of their employers through the intermediation of banks since money is bank money. As wage earners, they are paid in money and not directly with the physical goods they produce. Paying wages is really an exchange since workers place a physical product in the firms, and in return they receive its money form.

In the process, useful goods, physically heterogeneous, will precisely acquire a homogeneous form. In effect this is an exchange, one that does not consist in transferring wealth, the physical product for money. Such a transfer would not be possible since, outside its money form, we have seen that utility is not measurable. We can say wage earners operate an *absolute exchange* with themselves which is not about transferring but creating wealth.

When the wages are paid, utilities are parts of the economic space that hosts and represents them. Each converted object is then represented by money-units and is rooted in a quantity relation with others. It follows that “ for society as a whole, a wage-unit is exactly the measure of a utility unit, that is true for anyone” (B. Schmitt, 1997, p. 65). In other words, each produced unit is net for the whole and is immediately constituent of the total product. Once it has been converted into money, anyone’s production is somehow melted into the wage mass that makes up national income, "the amount of employment in each particular industry corresponding to each level of aggregate effective demand measured in terms of wage-units" (Keynes, 1973, p. 282). Production is a macroeconomic phenomena and every unit is determined as part of the whole.

This entails that wage earners do not sell their labor or force to anyone<sup>19</sup>; their income does not consist of wealth formed outside their activity. Their remuneration is the very product they have generated. The workers do not receive a money wage that would be distinct from the product of their work. They get the nominal form of this very product and, consequently, they hold a real income. Any wage earner is empowered to buy its own product in whatever utility form. When worker *X* purchases the goods *y* produced by worker *Y*, he actually purchases his own product in the form of a certain quantity of *y*, and *vice versa*.

Indeed, the workers will certainly never receive the whole of the wealth they have produced<sup>20</sup>. Yet, when wages are paid, the physical goods are entirely integrated into the money form that is presented as the real product of the period.

"The product is created from money, wrote B. Schmitt, if it were created before, it would be instantaneously void as the mere outcome of production-consumption. As the interposition of money is the only way to separate consumption and production, the product is net only if included in money. The product comes to life within money but dies at the "exit", the moment it leaves it." (B. Schmitt, 1984, p. 461).

Money and utility do not exist separately, their effectiveness lies in wages.

### *The wage-unit*

A measure is definitely a relation between a number and an object; paying wages is precisely the very act that materializes such a relation. The wage-unit concept proves quite pertinent to explain the process through which the economic measure is built.

As a pure form created by banks, money exists in society insofar as it relates to the goods created in the production and these goods exist as economic goods insofar as they are endorsed in money. As a matter of fact, the question of measure is not posed in dichotomous terms, namely there would be things or utilities measured on the one hand and money on the other, that would have then to be placed in an equal relation. The wage earning relationship involves goods and money do not exist independently in disjointed spheres. Their respective existence is subjected to their fusion (or integration) that actually takes place when wages are paid. As a matter of fact, all wage earners are busy producing one single element, the *national income* which, as Keynes showed, is the economic expression of total labor in society.

The distinction is generally made between nominal income and real income, as if the quantity relation settled in production between wages and goods could be further questioned on goods markets. That is one of the major contributions of "circuitists" to have demonstrated that effective demand defines the process in which supply and demand cannot be unequal. The logic of the circuit process denies that the temporal disjunction between production and consumption may put back in question the intangible nature of the wage-unit measure. The wage-unit is simultaneously the measure unit of what is produced and the measure of what can be purchased.

As a measure unit of the product, wage-unit is the purchasing power unit since it is an income unit which may also be defined as the power to receive useful goods. First, as we demonstrated, as workers receive their products in the money form, they indisputably have the power to purchase the goods they have deposited in their firm. Then, owing to labor division, they can also obtain, through some quantity relation, the goods produced by others just like the latter can get the goods they have produced. Such exchanges are possible because utile things and money are set in time and form a two-side stock: 1- physical assets deposited in firms on the one hand, 2- money assets deposited in banks on the other. The existence of both types of assets are mutually dependent. Moreover holding one is to hold a power on the other – it is their identity – while they cannot be simultaneously held<sup>21</sup>. This

originates in the autonomy of the forms of goods. Such formal autonomy comes from the separation of workers from the physical goods they have produced, not from their products.

Having money in hands, wage holders certainly do not hold utility but its numerical expression. The question then raised is to know whether the equivalence relationship formed during production can be redefined on goods markets. Truly enough any operation which could question the relationship established between utilities and their money form when income is formed does not exist. The relationship between money and goods is an integration relationship that itself determines the income. It can be undone only in consumption. Wage-units are not counterpart to physical goods, they comprehend them. To obtain useful things, income holders have to destroy the numerical form in which they are enveloped, by spending their income. There again, it is an absolute exchange since the income holder who consumes only converts the money form of the goods into their useful physical form.

"The creation of income and its destruction are therefore two absolute exchanges of opposite sign. The first, which we could call positive absolute exchange, defines the transformation of current output into money income, whereas the second, negative absolute exchange, defines the transformation of income into physical output." (A. Cencini, 1988, p. 91).

It can then be inferred that the purchasing power is not the reverse of price level. From a macroeconomic standpoint, nominal and real wages are identical quantities; the two terms designate the same object: the output. It also means that prices themselves are expressed in wage-units<sup>22</sup>.

However, the wage-unit concept as we have just presented is not fully achieved. It definitely focuses on how the national income is formed. Explaining the measure in our money economies still has to be carried on to completion.

### *The money-unit*

It is evident that money wages are made up of money units. Wage-units are therefore money units. It can be deduced that the income unit can literally be defined as the wage-unit in which the physical product is embodied. This comes down to saying that at the deep *the fundamental economic measure unit is the money-unit* loaded with useful goods. In that sense, money *is* value since it is the quantified result of the output in both its money and physical forms, which is to say that "*the unique product of a national economy, whatever the period, is a sum of money*" (B. Schmitt, 1984, p. 113). The basis of the definition of the product is not

the money form nor is its utility (or labor), it is actually their fusion in real money. Such integration is the very definition of economic goods, and within which each of the two forms keeps their autonomy. This autonomy lies in the distance between production and consumption in space and time and gives way to various operations which form the economic sphere.

Given that one single agent cannot simultaneously hold the goods and their money form, seizing utility requires the destruction of its money form when payment occurs. On goods markets money is not exchanged for useful goods; paying means converting money form into physical form by the destruction of the first. After payment, the purchasing power vanishes. Only the article survives, in the process it has left the economic sphere and has lost its utility; in short it has been consummated. On goods markets, it seems apples are exchanged for pears, the price of apples would be pears. This representation is wrong. Apple grocers get pears and *vice versa* because they have a purchasing power which takes on the undifferentiated form of money-units comprehending apples and/or pears. In fact, we can say that the apple producers get the apples he has produced but in the form of pears. That is to say, each producer consumed his own product. The question to know what quantity of apples or pears every one can buy depend really on the theory of measure. The amount of realized prices is limited by the general number of money-units produced.

The deep significance of the Keynesian principle of effective demand is shown when, with B. Schmitt, we note that paying wages is somehow the first expression of a demand for goods. Wages are the immediate measure of effective demand entrepreneurs can expect when paying wages. Moreover, given that workers do not receive in remuneration the goods they have produced, but money, their product is also offered to them in its physical form. There is nothing micro-economic since each wage being net for the whole, each money unit is immediately a macroeconomic quantity.

We can then understand that the national income being constituted with money-units, it is both identically nominal and real. The income cannot be different from itself whether considered in terms of demand or supply. To put it differently, supply and demand are two terms which designate a same quantity observed from two different viewpoints. Total supply and demand are defined in an identity relationship insofar as they are the two sides of the same thing, the national product, or identically the sum of money-units that make up national income.

## Conclusion

The wage-unit is not the measure of labor-unit ; it is an objective link between labor and the product formed into money-units. Created in each period of production and in each firm, the money-unit is the unit in which the social utility of the goods produced is measured, and through it, employment, therefore labor and its physical productivity. It is no adjustment variable on whatever market; originating in no wealth transfer, it cannot be ranked among prices. The wage rate is not a prior datum that would determine employment. It is a variable whose amount comes from the *a posteriori* fragmentation of employment remunerated by firms and that can be calculated only after the payment of wages. In that case, as it does not come from the exchange of goods, the wage-rate cannot be interpreted as the price of the labor-unit<sup>23</sup>. As it is, the labor-unit is a measure unit which is dependent on the technology used in the production processes.

The wage-unit is a primary relevant concept leading to the understanding of the integration process that allows money, at first pure form, becomes an asset. Accordingly, the money unit is the fundamental measure unit in economics. As a value, it is a whole not to be preconceived in terms of distribution. Wage earners initially receive the nominal and real integrity of the output, namely the entire real purchasing power needed to dispose of the goods whatever the price level. Leaving the debate over profit aside, we can still say that in the definition of the wage-unit we have just suggested, nothing shows that wage earners will finally benefit from all the goods they have created. What is sure is that profit being one part of the product captured by firms, it is logically included in nominal wages.

## NOTES

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<sup>1</sup> Keynes, 1973, pp. 292-93

<sup>2</sup> R. Wray (2000) indeed noted: "It is also rare for Post-Keynesians to discuss value or even units of measurement. It is merely assumed that one can properly begin with prices from sphere of circulation and deal with nominal values", p. 6.

<sup>3</sup> Keynes, 1973, p. 293

<sup>4</sup> in *Inflation, Chômage et Malformations du Capital* (1984).

<sup>5</sup> "I sympathise, therefore, with the pre-classical doctrine that everything is *produced* by *labour* ... It is preferable to regard labour, including, of course, the personal services of the entrepreneur and his assistants, as the sole factor of production, operating in a given environment of technique, natural resources, capital equipment and effective demand." (Keynes, 1973, pp. 213-14)

<sup>6</sup> As many Marx-inspired works demonstrate. Moreover, in *The Capital*, Marx himself evacuated the difficulty by evoking the workers' money wage. (*cf.* Marx, 1965, p. 750).

<sup>7</sup> For A.H. Hansen the wage-unit is indeed « the wage paid for a labor unit, that is the nominal wage paid for an hour of normal labor » (1967, p. 32). The wage-unit would be a nominal expression of the income that would then have to be related to the price level to obtain the real income or the real wage rate (*id.* p.30).

<sup>8</sup> *Cf.* Keynes, 1973b and 1973c.

<sup>9</sup> We will recall Chapter 5 of *The General Theory* is entitled : "Expectation as determining output and employment".

<sup>10</sup> *Cf.* G. Becker (1964).

<sup>11</sup> This determines neither product distribution nor the conflicts that may break out about this issue.

<sup>12</sup> For a rigorous demonstration of the production-consumption process, see B. Schmitt (1984).

<sup>13</sup> We will use the term « utility » rather than worth which might be ambiguous.

<sup>14</sup> See I. Fisher's rigorous demonstration (1906).

<sup>15</sup> The question of the reduction of skilled labor in ordinary labor units, which is a question posed in terms of concrete labor, appears therefore groundless.

<sup>16</sup> See B. Schmitt (1975) and (1984).

<sup>17</sup> From that purely nominal viewpoint, money is exogenous since it is not taken from the sphere of the goods.

<sup>18</sup> Money is then endogenous and may be asked for itself. *Cf.* B. Schmitt, (1984), from p.103 onward.

<sup>19</sup> Even though one may be thinking of plus-value, this does not contradict what we wrote since plus-value in Marx's words would correspond to labor done for nothing, thus non paid.

<sup>20</sup> We evidently do not forget the existence of profit.

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<sup>21</sup> This does not mean that although they initially have the money form of the goods, wage earners can ultimately get the whole for themselves.

<sup>22</sup> M. Seccareccia (1982) comes to the same conclusion by different ways.

<sup>23</sup> This also means that there is no market where labor could be supplied or demanded. M. Lavoie wrote : « Ironically the major aspect of the post-keynesian view of labour markets is that such markets do not really exist.” (1992, p. 217). Having said that, authors nonetheless build models that strongly resemble the neoclassical labor market models; whence the irony.

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