Mieczysław Dobija

LABOURISM AND THE ECONOMICS OF LIMITED TAXES

Abstract

The author shows that the system of fundamental economic concepts has so far not been clearly explained. Understanding capital and labour as primary and complementary economic categories leads to the view that money is also an abstract category which arises in the process of labour as work receivables. This means that work does not need to be financed because it finances itself, that is to say, it creates money. Recognition of this state of affairs implies the need for a new institutional solution. The natural solution would be to empower the central bank to pay compensation for work in the public sector and to control the labour productivity ratio. This macroeconomic ratio limits wages in the economy. The bank's present function of issuing money would be completely eliminated; it is a function which has no scientific justification. The author's calculations show that in such a system the budget deficit would disappear and the introduction of reforms to streamline and lower taxes would be possible.

Keywords: capital, labour, money, value, taxes.
JEL Classification: B11, E5, E58.

1. Introduction

The word labourism can be found in various dictionaries. One English dictionary defines it as a political theory favouring the dominance of labour in the economic and political life of a country. The dictionary of Catholic social teaching, meanwhile, describes the concept as an order elaborated in an economic model, which assumes that work is neither subject to capital nor its equivalent. This means that capital is subordinated to work, and not vice versa, as has been the case under a variety of socialist and capitalist socio-economic regimes. Yet no satisfactory concept of labourism has yet

Mieczysław Dobija, Department of Accountancy, Cracow University of Economics, Rakowicka 27, 31-510 Kraków, Poland, e-mail: mieczyslaw.dobija@uek.krakow.pl.

been elaborated – even in an outline form that could be put into effect under different social systems and in different countries.

The above explanations characterise to some extent the term labourism, but both include a metaphor about subordination and excess. Taking a strictly scientific approach and using scientific formulations, this study seeks to develop a coherent theory of the economy as driven by labour – labourism in short – anchored to consistently defined categories. Labourism is derived from the word "labour". As we know, work is a fundamental category of research in both the physical and economic sciences. This premise suggests that a theory of the economy driven by labour might be consistent with an understanding of the natural sciences as a means to create the knowledge needed to understand and control phenomena.

Once we have grasped that capital is abstract, and thus cannot be perceived via the senses, new avenues of economic thinking are opened. Because capital is the abstract capacity to do work, capital and labour can be conceived of as being in tandem. The disclosure of the relationships between capital and labour has led to a coherent economic theory (Dobija 2015a), in which work is a factor driving the economy. In an economy driven by labour, work and capital form a tandem of complementary concepts. The fundaments of this new economic thinking, including a description of the economic constant of potential growth, have been set out elsewhere (Dobija 2007, pp. 89–114; Dobija 2008, pp. 5–20; Dobija & Kurek 2013, pp. 293–304; Kurek & Dobija 2013, pp. 16–24). There are many ways in which the theory of labourism differs from that of monetarism. Chief among them is the concept of money. According to the precepts of labourism, money is created by labour and the central bank performs the role of the payer of compensation for work accomplished in the public sector. Furthermore, the equation of exchange is quite original. The focus of this paper, however, is taxation. To what extent do economies need to tax? What should and should not be taxed? What can replace the proceeds of taxation? What approaches can we take to budget deficits? These are the questions that have prompted the lively discussion that follows.

The study also offers a modern clarification of the capital – labour – value – money tetrad, which represents the fundaments of economic thinking. Though each of these economic categories has already been discussed in the papers referenced above, it is hoped that the account of the tetrad presented here will disclose some new and significant relationships. The paper then proceeds to examine how the economy would work were it run according to the precepts of labourism. The great financial benefits that could potentially

flow from this new arrangement, which should render some proportion of taxation unnecessary, are explained. With the theoretical sections behind us, we then turn to taxation and a discussion of the theory of a fair minimum wage, which does not admit depreciation of the employee's human capital and so ought not to be taxed.

2. The Tetrad: Capital – Labour – Value – Money

The earliest appearance of the notion of capital was as the core category of double-entry accounting theory, whose main task, as we know, is the periodical measurement of the change in the initial capital invested in a business. An increase in capital over a given period, which is the most frequently expected outcome, is called income (profit). Money is the most requested of the various types of assets, while capital (one's own or a debt) and assets are expressed on a balance sheet as a statement of a company's financial position. The implication of this fundamental statement is that capital is an abstract category that cannot be perceived by the senses and can only be comprehended through intellectual exertion involving the mind. The relationships between the resources of capital, assets, value and money are examined precisely in the papers I have referenced (Dobija & Kurek 2013). As this will offer the clearest explanation of the relationships between the resources that make up the tetrad, I have decided to quote some sections of my earlier papers verbatim.

The first printed book that includes an explanation of the relationship between capital and assets, as well as a description of a system of periodical measurement of the capital invested in a business, was written by Luca Pacioli and was published in Venice in 1494. Accounting, which was dealt with in a section called *Particularis de Computis et Scripturis* [About accounts and other writings], was one of five topics covered. We may thus infer that the measurement of the growth of capital in business activities had begun its transition from an uncommon to a common skill by the end of the fifteenth century. The essence of this technique, which is now known as the two-dimensional double-entry accounting system, continues to be probed and discussed by scholars such as Y. Ijiri (1993, pp. 265–85) and M. Dobija (2009, pp. 5–20).

To show the relationship between capital and assets, let us take the very straightforward example of a business whose assets consist of a car worth USD 40,000 and cash on hand of USD 10,000. Table 1 presents this company's balance sheet.

Table 1. Statement of Financial Position

Assets		Capital	
Cash	USD 10,000	Owner's capital	USD 50,000
Car	USD 40,000		
Total	USD 50,000	Total	USD 50,000

Source: author's own example.

The assets represented by the car and the cash have a specific ability to perform work. By definition, moreover, they ensure a stream of inflows which, even though the value of cars diminishes, means that the total value of the business can be expected to be greater after a period of time has passed. This is the essence of assets. The *sine qua non* of a firm is to increase the value of capital. It will not survive otherwise. The main task of an accounting system is to measure periodical changes of capital, which will be expressed as income when capital increases and as a loss when it decreases. However, the unit of measurement in this system has not yet been clearly understood. It is after all a unit of capital, which is a notion that has been vague for centuries. We may state in summary that the value of assets is equal to the value of the capital embodied in them.

To grasp the idea behind the unit of capital we have to observe the way in which capital and labour operate in tandem, which is directly implied by the definition of capital. If capital is the capacity to do work it is also the potential to do work, which is exemplified by a car in a garage. The labour process, on the other hand, transfers this potential of accumulated capital to that which is worked upon. In this way labour is the dynamic aspect of potential capital. No labour can be performed without the prior accumulation of capital. Labour therefore also determines the unit measure of capital, which is hence measured in units of labour. Adam Smith (1776, Book I, Ch. V) was right when he wrote:

What is bought with money or with goods is purchased by labour, as much as what we acquire by the toil of our own body. That money or those goods indeed save us this toil. They contain the value of a certain quantity of labour which we exchange for what is supposed at the time to contain the value of an equal quantity.

Assets are measurable only because capital is embodied in them. The level of concentrated capital determines the value of the assets. Value, whether determined by free market exchange or computed by cost accounting, is the most important economic measure. Both play a significant role in the economy where they are known as exchange value and cost value.

The third basic notion we should consider is that of resources which, though it is the most uncertain of the three concepts under investigation, remains a terminological necessity in economic language. The concept of resources can be explained by distinguishing them from assets. While the essential feature of assets is that we know how much capital they possess, resources are vague and we do not know how much capital they possess. Though resources can be highly desirable, it is not clear whether they are able to produce income in existing economic reality, which is why we count them in natural units as tons or cubic metres.

It is hard to explain why this understanding of these significant categories was not adopted as orthodox economic thinking long ago. By definition, capital is closely related to work and value. If work is measurable it ensures that capital and assets can also be measured. Money is a work receivable, that is to say, it constitutes an absolute right to obtain the equivalent value. Given that Luca Pacioli published his book containing the abstract category of capital and the fundamental double--entry equation as long ago as 1494, it is difficult to understand why these difficulties have persisted for so long. The purpose of this accounting system was and remains the periodic measurement of increases in the initial capital invested in economic processes, that is, the measurement of income. What is more, it was not long before the use of double-entry accounting, which has been praised by historians of economics (Rosenberg & Birdzell 1994, pp. 345–56) for its positive contribution to the development of capitalism, became the norm. The duality of assets and capital is the intrinsic feature of double-entry accounting.

The long history of research into the abstract concept of capital shows how difficult it has been to understand. R. M. Solow (1963, pp. 7–9), for example, wrote of capital that: "(…) if the issue remains a matter of theoretical discussion and is still unresolved after 80 years, the suspicion arises that either the questions have been badly posed or the matter is very deep indeed". We may also recall Bliss, Cohen and Harcourt's three volume work *Capital Theory* (2005) which contains 71 scientific articles, letters from the nineteenth, twentieth and twenty-first centuries and introductions giving their own perspectives on the theory of capital by Bliss, and by Cohen and Harcourt. The differences of opinion were so great that the authors were simply given free rein to formulate their opinion on the infamously contentious subject of capital. Bliss (1975, p. 7) even wrote:

When economists reach agreement on the theory of capital they will shortly reach agreement on everything. Happily, for those who enjoy a diversity of views

and beliefs, there is very little danger of this outcome. Indeed, there is at present not even agreement as to what the subject is about.

The car mentioned in Table 1 can be perceived as firm, concrete and tangible; these are the characteristics of assets. The capital embodied in this car, however, is abstract and lies in its capacity to be driven and thus to do work. We may state in general terms that capital is the capacity to do work. When a car can no longer be driven it retains only scrap value. When a company is no longer able to perform its work of generating profits it goes bankrupt. When a person no longer has the ability to perform any work it means that they are dead. Capital is therefore the most important economic category, and economics is the study of capital, profits and sharing.

If we give the matter thought we may conclude that capital is an abstract, homogeneous and potential category. If this is so, no distinctions are introduced by the capital contained in the car, the cash on hand and in human resources. Two of the fundamental principles of capital (Dobija 2007, pp. 89–114) are that it cannot be created and that it relies on spontaneous random dispersion involving a thermodynamic understanding of reality. While capital and assets are measurable categories, resources are countable only in natural units. The content of capital in assets determines its value. As the potential ability to perform work, it determines the nature of the work as the transfer of capital to products. Potential capital and dynamic labour are thus in tandem.

Once it is understood that capital represents an abstract ability to do work, we may formulate a model of the changes required within capital so that it can be accommodated within the fundamental principles of thermodynamics, which P. Atkins (2007, pp. 3–78) defines as the determinants of the development of the reality that drives the universe. Capital too, we may note, is subject to these general principles. There is a principle of diminishing potential in operation. In this way money kept in the form of banknotes loses its purchasing power, the value of a car falls every year and, after twenty years in use, a bathroom requires thorough renovation. On the other hand, capital cannot be created out of nothing: to do work, the capacity to do a job must exist, which is the province of human capital. We must have initial capital before we are able to open a deposit account in a bank and earn interest on it. Likewise, as the case of an accomplished surgeon shows, a high degree of human and intellectual capacity must first be invested if we wish to make a high salary. Useful things have never been created from nothing. On the contrary, they are the result of work in the form of transfers of capital.

The compound interest formula with a specific interest rate structure offers a simplified model of changes in initial capital (Dobija 2011a, pp. 142–152; Dobija & Kurek 2013, pp. 293–304). This formula determines the growth of start-up capital (C_0) as a function of time elapsed (t) and the interest rate (r). It has two variations: periodic capitalisation [$C_t = C_0(1 + r)^t$] and continuous capitalisation [$C_t = C_0 e^{rt}$]. Given our current state of knowledge we may identify three factors affecting initial capital:

$$C_t = C_0 e^{rt} = C_0 e^{(p - s + m)t} \text{ and } E(s) = p = 0.08 \text{ [1/year]}, \tag{1a}$$

where: p – is an economic constant of potential growth (ECPG); s – indicates the rate of random, spontaneous diffusion of capital and m – determines the increase in capital supplied by work. The factors affecting the growth rate of capital can be interpreted as follows:

p^{et} – this factor determines the natural potential of capital growth in line with ECPG = $p = 0.08$ [1/year];

e^{-st} – a random factor determining the spontaneous diffusion of capital (the impact of the thermodynamic arrow of time); t – flow of time;

e^{mt} – indicates and enhances growth, which occurs thanks to transfers of capital via labour accomplished by the capital embodied in employees and assets.

Though this does not constitute a final explanation of the structure of the rate of growth, our identification of the factors is justified by knowledge of the fundamental laws. Two opposing influences on initial capital may be considered: the declining diffusion ($-s$) of initial capital and the increasing concentration of capital through work transfers. The constant p then becomes an argument in a labour function. Then:

$$C_t = C_0 e^{rt} = C_0 e^{[m(p) - s]t} \text{ and } E(s) = p = 0.08 \text{ [1/year]}. \tag{1b}$$

Work, as explained by P. Atkins (2007, pp. 3–37), is an action against opposing forces, such as gravity, friction and resistance. The author points out, however, that even the work of electricity can interact with the force of gravity. If intellectual work requires a brain, then it must also be related to the work of electricity. Theories and accounting systems focus on the measurable value of the capital contained in objects or assets. Capital is embodied in the assets that make it measurable and is expressed by the fundamental nature of double-entry accounting (Kurek & Dobija 2013, pp. 16–24). Business transactions are recorded in this way because capital can only be transferred;

it cannot be created. Capital, whose concentration increases the value of an object, is transferred in the economy mainly via labour.

One contemporary theory of capital (Dobija & Kurek 2013, pp. 293–304) maintains that labour and capital are complementary: labour represents the dynamics, that is, the transfer of capital from a source, and capital is the potential ability to perform work. Labourism thus rejects the unwise and conceptually confusing determination of capital as machines, money and real estate. A scientific approach requires the concepts to be arranged correctly: capital accumulates in assets through transfers known as "labour" or "work". The measurability of capital is thus due to the measurability of work. The measurability of assets and their value is derived from the capital they contain. The category of resources remains unchanged; resources are countable only in natural units and are not measurable in units of labour. Assets are measurable because of the capital they embody.

The formula for measuring work applied in physics shows two equivalent models when presented in a simplified scalar notation without vectors. The measure of labour in this simplified scalar description is:

$$L = F \times s \times \cos \varphi = F \times v \times t \times \cos \varphi = P \times t \times \cos \varphi, \qquad (2)$$

where L – scalar mechanical work; F – scalar force; v – speed scalar; $\cos \varphi$ – cosine of the angle between direction of force and direction of movement; P – scalar of power; and t – time of completion of work.

In economic practice, and particularly in employment contracts, the formula containing the second part of equation (2) is commonly, though perhaps unconsciously, applied to the categories of power and the passage of time. Assigning an employee a rate of payment determines the potential power (P). If an employee is assigned to a position paying USD 3,000, and the highest salary is USD 15,000, the power factor is 1/5 and 180 hours of work per month is equal to $(1/5 \times 180) = 36$ units of labour. By this account, 36 labour units = USD 3,000, so 1 USD = 0.012 of a basic unit of labour. It does not matter in the economy what part of the 1 labour unit is 1 USD. This unit is adopted as the basis of economic calculations; the dollar is simply a common unit of labour. Since the power coefficient is determined as the quotient of wages, the measurement of labour in the economy can be described as follows:

$$L = P \times t \times \cos \varphi = W/W_{max} \times t \times \cos \varphi = H/H_{max} \times t \times \cos \varphi, \qquad (3)$$

where W/W_{max} denotes individual wages and H/H_{max} denotes the personal human capital of the employees in question. Combined with managerial control, the self-control of individuals makes it possible to assume that cos φ is equal to 1.0.

Since economics is an emergent science when compared to physics, additional interpretation is needed. As we know, if the direction of a force is not in line with the direction of a predefined path, the force vector is corrected by the tilt angle of cos φ. The size of cos φ is usually overlooked in economics, which may be unwise given that it indicates the extent to which work has been done efficiently. In the context of economics, work is done to achieve managerial and social goals. However, as the example of a gang of thugs demolishing a bus stop demonstrates, we are also confronted by efficiency where the aim is to destroy. In this case φ = 180°. Hence, cos φ = –1. If GDP were to be measured properly, the negative value assigned to the thugs' work ought to be added first. Only then would the positive value of the repair team's labour be added. The impact on GDP would then be close to zero. Today, though, only the work of the repair team is counted.

Measuring work, which makes it possible to measure other economic values (notably capital), supports the identification, measurement and reporting required to control the economic system. Yet labour simply transfers the capital located in objects – particularly that inherent in employees and assets – to products of all categories. In this way only the value of the employees' current work and the value of work concentrated in a very wide range of assets are visible in the *ex post* economic computations. Y. Ijiri (1999, pp. 177–90) writes the following with respect to the important aspect of economic theory that is accounting:

> In contrast to the labour theory of value, which focuses on input, the utility theory of value focuses on output; hence, it does not question how and through what process a product was produced as long as the output possesses the same use value. Thus, the cost principle would not have a common linkage with the utility theory of value as it does with the labour theory of value.

Other authors such as R.A. Bryer (1994, pp. 313–40) have proved that Marx's theory of value is superior to the marginal theory of value in the case of financial reporting.

Utility theory, whose idea of value is primarily focused on the product (output), marks a completely different approach to economics. Though it is the prevalent theory in the economic literature, practise is dominated by

information from accounting systems and financial statements, in which the economic value of assets of any kind is determined by the concentration of capital transferred through work. Labourism can thus be seen as a system of scientific knowledge that applies the paradigm of labour and capital in tandem. What is more, money is generated naturally in the process of work.

Measuring the capital embodied in an asset may determine its value, but market value is determined by the market price which, as the stock exchange demonstrates, is swift to deviate from the value of an asset. This is why the valuation process – valuing an asset by measuring the capital embodied in it – is so complicated and uncertain. The main reason for this uncertainty is a quality of nature determined by the second law of thermodynamics, one of whose many formulations states that no potential (remember: capital is only the potential capacity to do work) stays at the same level forever. Worse still, however natural it may be, potential dissipates over time. Everything is getting older, which means that initial capital declines. This loss of value by natural dispersion could, however, be replenished by transfers of capital through labour. We know that fixed assets are repaired, individuals are fed and cured, and materials are produced. It is in this way that the economy is driven by labour. Value combined with the tandem of capital and labour forms a triad of fundamental economic concepts.

Money, which is related to labour, capital, assets and value, is also an abstract category that can be correctly discerned only by human intellect. Neither silver nor gold is good money. Instead they are material assets good at retaining the capital value lent to them by labour. We are very close to an accurate idea of money if we understand a banknote in a worker's wallet as a record of work receivable. This does not apply to the cash emitted by central banks, which has no relationship to the labour of employees.

If we add money understood as work receivable to the capital-labour-value triad we arrive at a tetrad of the most important categories in economics. That they are still largely unacknowledged and even now remain a source of confusion is attributed to their intangibility: we have no access to them through our senses. Though confusion is severe in the case of both capital and money, the acute dangers to economic life lie in the misunderstanding of money. The great singularity of the money economy is overlooked because money is misconceived. It is a fact that labour increases value and creates money. This means that labour is always self-financing.

Capital, which flows from initial assets and human capital via labour and work receivables before returning again to assets and human capital, relies on circular flows in the money and goods economy. The work receivables

become assets in the form of cash and deposits. The natural forces quantified by ECPG = 0.08 [1/year] make it possible for capital to grow. A yearly flow thus yields the average increase in initial capital determined by ECPG. It should be noted that people also decide to locate capital in human resources. Indeed, one of the factors on which a country's welfare and economic standing greatly depend is the proportion of assets engaged in the productivity of human capital.

It is labour that transfers capital to products (assets and utilities) and gives them value, and it is work done that generates records of work receivable, that is, money. This is seen clearly in the case of companies, where the cost of labour becomes the cost of the products, and the money expended as a cost of labour is returned in the form of sales revenues. The case of teachers and other public-sector workers, who also create indispensable value by doing their jobs, is an interesting one. All of the professional activities accomplished by teachers, policemen, soldiers and other public--sector workers transfer capital to specific workplaces and communities, for which periodical payment should be made in the form of work receivables. This is the task of an authorised institution, namely a reformed central bank.

3. The Brilliance of the Money Economy and Self-financing Labour

It is well known that the theory of money has always been a weak point in economics. The tetrad of fundamental economic ideas we encountered above leads us to perceive money as an abstract category and to understand that it is the labour process that generates work receivables, that is, money. This explanation demonstrates that money is consistent with fundamental laws, which stands in sharp contrast to the way central banks generate money by fiat. This is one means of conducting the money economy but it is an invalid one that continues to cause difficulties. What is more, an economy of this nature is not a pure market and is far from being self-regulating. When money is controlled by central banks the consequences are inflation, deflation, manipulation, crises, deficits and high taxes. All complications vanish when, in accordance with the fundamental tetrad, money arises in a natural way as a record of work receivables.

Money is thus neither a material nor a product. It does not rely on the law of supply and demand and it is not a medium of exchange. Our entire stock of human experience confirms that money as such is exchanged for products and vice versa. Proper economic management provides the economy with assets that increase labour productivity. Employees' bank

accounts will then grow as a result of the work that they have done. Unlike in an economy dominated by the view that "we cannot do it since we do not have any money", a labour-driven economy creates conditions in which people come to understand that they possess the resources and talents to build anything. It is extremely important to understand that, in a properly run money economy, labour is self-financing and does not depend on funds from taxation. This way of thinking has the power to liberate us from budget deficits and to alleviate unemployment. Let us now examine money and the unit of money.

In a passage describing the battle over monetarism between Milton Friedman and John Maynard Keynes, T. G. Buchholtz (2007, pp. 229–34) tells a tale that both illustrates a widespread opinion of money and tells us something of its essential nature:

What is money? Anything can be money, including shells and beads; cigarettes often serve as money in prison. In today's macroeconomic lingo, we follow the Federal Reserve Board definition of money supply. The most popular measure is called M1.

How can someone regard money as a material, which by definition must be scarce, and at the same time expect there to be a supply of it?

Buchholtz adds (2007, p. 170): "Why would anyone be foolish enough to argue about the money supply? The more money, the merrier, right? Wrong. (…) If the amount of money overwhelms the capacity to produce goods, consumers, with more money to spend, bid up prices".

The present state of knowledge regarding the monetary unit is clearly expressed by A. V. Banerjee and E. S. Maskin (1996, pp. 955–1005):

Money has always been something of an embarrassment to economic theory. Everyone agrees that it is important; indeed, much of the macroeconomic policy discussion makes no sense without reference to money. Yet, for the most part, theory fails to provide a good account of it. Indeed, in the best-developed model of a competitive economy – the Arrow-Debreu framework – there is no role for money at all. Rather than there being a medium of exchange, prices are quoted in terms of a fictitious unit of account, agents trade at those prices and that is the end of the story.

The literature contains much evidence of scepticism regarding the present theory and practice of money. R. W. Garrison (2001, pp. 7–8), for example, who represents the contemporary Austrian School of Economics, expresses the moderate opinion that:

Unavoidably, the medium of exchange is also a medium through which difficulties in any sector of the economy – or difficulties with money itself – get transmitted to all other sectors. Further, the provision of money even in the most decentralised economies is – not to say must be – the business of the central authority. (…) Money comes into play both as a source of difficulties and as a vehicle for transmitting those difficulties throughout the economy.

Problems with the present monetary system have recently been raised by a group of thinkers including Lietaer (2004, pp. 1–23) and Rushkoff (2008, p. 244), who have proposed open source currencies. D. Rushkoff explains:

Open source or, in more common parlance, 'complementary' currencies are collaboratively established units representing hours of labour that can be traded for goods or services in lieu of centralized currency. (…) So instead of having to involve the Fed in every transaction – and using money that requires being paid back with interest – we can invent our own currencies and create value with our labour (…).

Insofar as it correctly conceives of money as standing in strict relation to labour, this is a progressive concept. It remains unsatisfactory, though, in the sense that complementary money will not make our tough existences any easier. What we need instead is complete knowledge of the essence of the money-goods economy. If we can provide a satisfactory account of what money is, we may be on the way to securing that economy. For now, we can state with some degree of certainty that money represents the receivables we are due from our work. Money arises as confirmation of work that has been done and represents the value of labour transferred by labourers. The real transfer of human capital into products occurs only in the labour process, which is why we can say that labour is always self-financing.

The essence of the money-goods economy is the continuous market confrontation of two streams which, as Figure 1 shows, are activated by the potential of human capital and its work. The first stream (on the left-
-hand side) represents the value of the end products generated by the current labour of employees (W) and the past work embodied in different sorts of assets. The second stream represents compensation (W), that is, receivables due for work. The source of these two streams, at the edge of which lies the exchange of money (work receivables) for products, and of products for money, is the same human capital of employees. We can employ the wage equation of exchange to describe this. The streams are always flowing, so we use annual variables – in particular GDP – to capture the quantitative relations. The final production exchanged on a market for a given year is the value of GDP at current prices. GDP is also the product of labour costs W and of work productivity Q. In this way GDP = $W \times Q$.
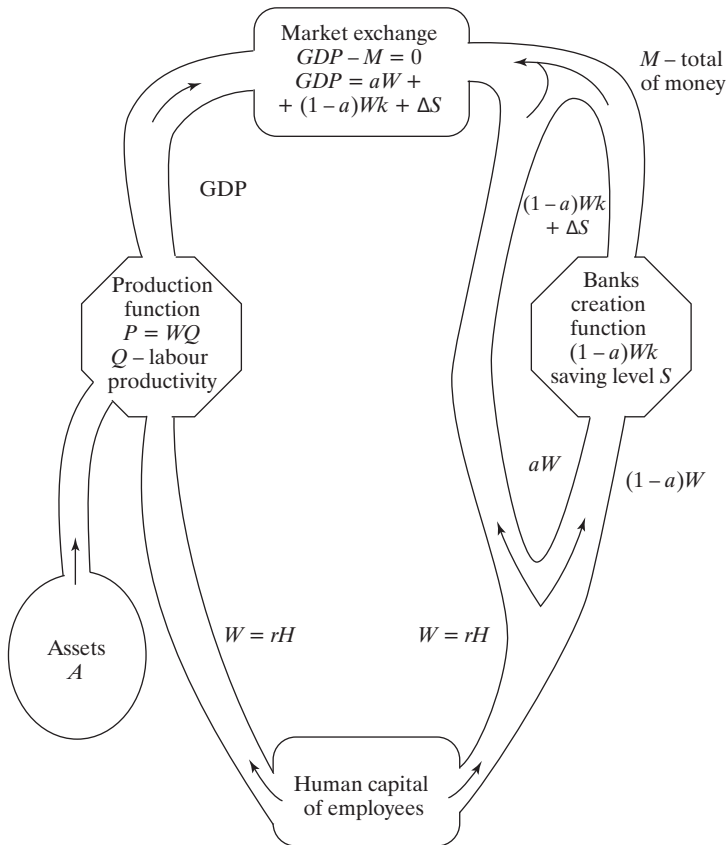
Fig. 1. The Market as a Mechanism Levelling the Value of Product and Money
Streams

Source: a modified version of the figure presented in Dobija (2011a).

The value Q is a factor of the cost of the original production function
(Dobija 2011a, pp. 142–52; Dobija 2015b, pp. 86–94). The production
function, which is made up of the measurable variables H (representing
the human capital of employees) and W (compensation), takes into account
J. Robinson's (1953–54, pp. 77–89) criticism of the econometric modelling
of production. If it is possible to assign value to the human capital of
employees, the way is open to formulate a production function and model
adequate to labourism. If L denotes a fair fixed wage and H represents the
personal human capital of workers, the product $L = p \times H$ (p = ECPG)
helps to determine the value of H. We now have a platform on which

both the production function and, later, an adequate production model, can be constructed. The production function reveals the factor of labour productivity Q, which may be applied to outstanding effect in economics.

As well as all of the additional components that determine the value of W, the right-hand stream represents remuneration. A proportion of remuneration, aW, where $0 < a < 1$, passes directly to market exchange, while the second part of the compensation stream $(1 - a)W$ flows first to the system of commercial banks in the form of savings and pension funds. At the commercial banks this stream can be increased by multiplier k to the volume of $(1 - a)Wk$, which is the result of lending and pensions payments. Part of this inflow remains in bank accounts due to other provisions and the requirement to maintain liquidity. Figure 1 illustrates work (human capital transfer) as the driver of the money economy.

The confrontation of these two streams in the market (the value of products and total money) is what finally determines the purchasing power of money and the final market value of products. An indication of the relationship between products and money may be obtained by taking a quantitative perspective of their bi-directional exchange and expressing it in the form of the wage equation of exchange. The wage equation of exchange is introduced under two conditions: work finances itself and generates money as work receivables, and pension funds are to be regarded as a form of savings.

It should be noted that Figure 1 encompasses the work of every employee, including farmers, workers in industry, teachers and police officers. This is easier to understand if GDP is understood mainly as the sum of the current labour and past labour embodied in the assets measured by depreciation. The formula for this method of calculating GDP is as follows:

GDP = Total pay + Depreciation + Taxes + Gross profits + Change in *Bb*.

Bb here denotes the initial balances of products. Figure 1 also helps us to see how past work serves the future. Let us take the example of a group of workers who built a bridge and then retired. They received money in the form of work receivables transferred to their bank accounts as remuneration, and the costs of their work became a part of the bridge's value. Now retired, they receive payments from capitalised retirement funds (right stream), while an amount representing the bridge's depreciation through use flows in the product stream on the left. The work of retired teachers or police officers, who have contributed to the growth of human capital, is returned to

them as a result of the work that capital now does to increase current GDP and so fund their pensions.

The wage equation of exchange balances the value of GDP with the sum of money *M*. According to Figure 1, this equation is as follows:

$$GDP = GDPR(1 + i) = a \times W + (1 - a) \times W \times k + c \times S \qquad (4)$$

$$\text{or } GDP = GDPR(1 + i) = a \times W + (1 - a) \times W \times k + d \times W. \qquad (5)$$

The symbols of the values are as follows: *GDP* – nominal GDP; *GDPR* – real GDP; *W* – labour costs; $Q = GDP/W$ – work productivity index; $Q_r = GDPR/W$ – real work productivity index; *i* – inflation (deflation) rate; *k* – coefficient increasing the value of stream $(1 - a)W$ as a result of credit action taken by the banking system, $d = c \times S/W$.

The multiplier (*k*) is determined based on equation (5). Assuming $i = 0$, which denotes zero inflation and a state of deflation, we obtain the equation (6):

$$GDP = GDPR = a \times W + (1 - a) \times W \times k + d \times W. \qquad (6)$$

Equation (6) divided by variable *W* gives:

$$Q = Q_r = a + (1 - a) \times k + d. \qquad (7)$$

Hence the formula determining the multiplier *k* is as follows:

$$k = (Q_r - a - d)/(1 - a). \qquad (8)$$

The credit required is therefore presented as:

$$\text{Credit} = (1 - a)W(Q_r - a - d)/(1 - a) = W \times (Q_r - a - d). \qquad (9)$$

This formula involves only the main macroeconomic variables, which are those that have an impact on the credit-generation requirements of commercial banks. There are a number of further constraints on lending, including, primarily, the need to ensure the safety of commercial banks. Formula (9) explains that the credit value depends on the remuneration stream *W*, real work productivity Q_r and the level of wealth (*a*), as well as on changes in savings and detriment funds. As the productivity of work grows, which depends to a great degree on the value of assets, there are more opportunities to extend credit and the demand for it is greater.

In this system, the central bank does not generate cash money by fiat and has no tools to assist commercial banks. The requirement to maintain liquidity must therefore be strictly and rigorously observed. As the

guardian of citizens' money, the banking system must furthermore operate under the permanent supervision of state institutions. One of the tasks of a reconstituted central bank is to safeguard work productivity Q and to ensure that the size of the public sector is adequate.

Figure 1 shows the natural exchange and balance achieved by the money-goods economy when money is understood correctly as work receivables. Maintenance of the value of money, so that there is neither inflation nor deflation, is then ensured by preventing a decrease in work productivity (the level of remuneration) measured by the ratio Q, and adhering to the designated credit volume. Given, though, that the systems for the measurement and management of work processes are never perfect, a low level of inflation may occur. In this case it may be desirable to introduce a modest payroll tax. Under present arrangements, on the other hand, financing work in the public sector from taxes leads to a situation in which the value of market products and services (GDP) is not fully balanced by the value of total money (M). In the majority of cases this value is lower in the tightly-governed and well-developed economies because of the direct taxation of remuneration. In other words, the value flow represented by the stream of products is significantly greater than the value flow represented by the streams of money and credit. This is a reason for deflation.

Where the remuneration of public-sector employees is funded from taxes there is a risk of deflation and of other economic imbalances. It is therefore a requirement of a correct and natural economics that their pay should not be funded from this source. What is more, no direct tax should be imposed on the salaries earned by public-sector employees which, in a correctly organised economy, should be paid by a reformed central bank. This institution will be given the authority to issue money, that is, to make a record of work receivable as payment for work done in the public sector. These records would offset the work liabilities of the institution employing the public-sector workers and transfer the value of their salaries to their accounts at commercial banks. By supervising national labour productivity Q, a reformed central bank would also control the size of the public sector.

4. Fair Compensation as a Fundament of a Balanced Economy

The model for measuring human capital is derived from the general model of capital growth (1). No value is assigned to infants, who enter the world as gifts of nature. Rain or sunlight, which are natural resources, are deemed to be free. Though photosynthesis does much to bring wheat or coal

into being, these products accumulate value through the costs of mining and transport in the case of coal, and of planting, harvesting and transport in the case of wheat.

There are two variables in the general model of capital (random dispersion (s) and the inflow of capital through labour (M)), and the economic constant (p). While it is clear that the forces represented by (s) would be damaging to an infant, they are offset by the efforts of parents and of society (labour M). The only variables that play a role in human capital development are therefore the economic constant (p) and the passage of time. The basic model of human capital measurement $H(p, T)$, as introduced in Dobija (2011b, pp. 780–87), may therefore be determined by the formula:

$$H(p, T) = [K(p) + E(p)][1 + U(T, w)], \tag{10}$$

where: $K(p)$ – denotes the capitalised value of the cost of living; $E(p)$ – denotes the capitalised value of the cost of professional education; p – capitalisation rate = 0.08 [1/year]; $U(T, w)$ – denotes the type of learning function and a learning parameter (w); T – denotes the number of years worked in a professional occupation.

This model may be reshaped in the equivalent additive approach:

$$H(p, T) = K(p) + E(p) + D(T, w), \tag{11}$$

where $D(T, w)$ denotes capital gained from professional experience. This way of measuring human capital allows us to derive a compensation model for the work of a person with human capital $H(p, T)$. The fundamental principle of fair compensation follows from the second law of thermodynamics. The capital an individual embodies depends on the law of spontaneous and random dispersion (s). The minimum annual compensation for an employee is therefore determined by the formula $W = s \times H(T, p)$. The natural dispersion of the human capital is then offset, and the human capital of the employee maintains its value. Since (s) is a random variable with a mean value $E(s) = p$, the formula suitable for wage estimation is $W = p \times H(T, p)$. The measurement of human capital and the question of fair compensation have been explored in a number of studies. In addition to the cited authors they include papers by M. Dobija (1998, pp. 83–92), D. Dobija (2003), W. Kozioł (2014, pp. 156–93) and J. Renkas (2012, pp. 345–56).

Compensation usually has two components: basic pay and bonus pay. Basic pay is stipulated in employment contracts or established as part of other arrangements. It is worth noting that assigning basic pay to an

employee determines their recognised potential power. This is consistent with the well-known measurement of labour L as a product of power and time (L = power × time). Here the coefficient of power is the quotient $H(T)/H_{max}$, where H_{max} is the human capital of the employee with the highest value for human capital. Determining the potential power ratio is an essential element of employment contracts.

It would appear that workers' labour L was already being measured in line with the formula L = power × time in antiquity. According to archaeological evidence, and interpretations of clay tablets containing records of labour performed by different groups of workers, an economic system driven by labour existed in the third millennium BC. It is claimed by Struve (1969, pp. 127–72), who examined the organisation of labour in Sumer, including in documents from the archives of Lagasz and Umma, that:

> The tablets contain records of the numbers of labourers, male or female, as the case might be, who were to perform one or several tasks connected with agriculture, under the supervision of the overseer. The time assigned for the performance of each labour operation is sometimes estimated in days, and sometimes in months; but in the majority of cases it is given as one day: (so many labourers for one day). The meaning of this formula occurring in these small documents, which I called primary, was fully revealed as a result of comparative analysis of the large reports of the overseer compiled on the basis of the primary documents, recording work performed by the labourers of their gang during a certain period. (…) From this I inferred that the Sumerian accountants had a notion of man-day.

It is therefore clear that these accountants computed the costs of labour in man-days. Struve (1969, pp. 127–72) also found that: "In addition to the unit of labour force, the scribes distinguished such quantities as 5/6, 2/3, 1/2 etc. of a unit of labour force. The labourer whose productivity of labour was estimated at 5/6, 2/3, 1/2 etc. of a unit of labour force, received grain ratios proportionately reduced". The conclusion is clear. At the beginning of civilisation labour was measured as the product of power and time, where the factor of power was determined by a positive number expressing a fraction of an employee's power. Our present compensation practices are thus only a contemporary generalisation of these ancient methods. Labour is measured as a product of power and time in both physics and economics. In physics the unit of power is additionally fixed, while in economics it is a positive fraction $H(T)/H_{max}$.

Alongside the three natural factors, $K(p)$, $E(p)$, $D(T, w)$, creativity capital is the fourth component of human capital. If we agree that the inventions of Tesla and other great inventors and scientists have been underpinned by

outstanding creativity as well as by education and experience, and if we can apply the same thinking to sportsmen and sportswomen, whose capacities can be measured by the market, it is right to add one more factor to the model (11): creativity capital C_r. The additive model of human capital will then be composed of four elements:

$$H(T, p) = K(p) + E(p) + D(T, w) + C_r. \tag{12}$$

Creativity capital is not measured by capitalised costs. In the case of footballers and other sportsmen and sportswomen it is the market that estimates their creativity capital. The DCF approach is in general suitable for obtaining C_r.

A special IRR equation (13) written for one year can be employed to corroborate the compensation model:

$$H(T, p)(1 + r) = W + H(T + 1, p), \tag{13}$$

where T denotes a chosen year of employment, r is an expected rate of return and W denotes wages. The right-hand side of the equation states that an employee receiving wages W over a period of one year accumulates personal human capital and has one further year of experience. Solving the IRR equation we obtain the formula (14):

$$W = r \times H(T, p) - \Delta D(T, w). \tag{14}$$

Compensation W is thus first of all a percentage of the employee's human capital r. The factor $r \times H(T, p)$ can however fall due to the additional experience gained as each year passes, which is represented by factor $\Delta D(T, w)$.

Formula (14) shows that the experience gained over the course of the year belongs to the organisation that created the post. When T grows, the factor $\Delta D(T, w)$ returns quickly towards zero. The general formula for compensation is therefore $W = r \times H(T, p)$. If $r = p$ this is the fair minimum pay. Research conducted by Kozioł (2014, pp. 156–93) has shown that the average value of r in a company that is working normally is 10%. This means that bonus pay adds approximately 25% to basic pay (8% of the human capital). Basic pay makes it possible to maintain employees' human capital (see the computations in Dobija 2014a, pp. 1–9 performed for the year 2014), while bonus pay provides further motivation and the opportunity for employees to improve their economic position. That the present value of the stream of basic pay ($p \times H(T, p)$) is not less than the initial human capital

confirms this. If basic pay is $L = pH(T, p)$, so $PV_\infty = pH(T, p)/s$, where (s) is the ratio of dispersion and $H(T, p)$ remains constant for a further number of years. If the random variable (s) is replaced by the mean value $p = E(s)$, then $PV_\infty = pH(T, p)/p = H(T, p)$. This proves that the stream of wages is equal to $H(T, p)$. Human capital is thus preserved.

The human capital model and the compensation formulas both include the constant p. Fair pay can be understood as $W = p \times H(p)$, which means that the impact of the constant is very strong. The application of the economic constant $p = 0.08$ protects wages against the uncontrolled relativism mentioned by Barrow (2003, pp. 201–91) in his work on the role of constants in the scientific description of the world. It has been demonstrated that wage levels set through the measurement of human capital are fair in the sense that they prevent the depreciation of employees' human capital. Plato, as we know, recommended long ago that the incomes of the wealthiest Athenians should never exceed five times that of the city's poorest residents. According to calculations of human capital – leaving aside creativity capital – the range of fixed wages should adhere to the same proportion. Yet this is not the case, for example, in Poland, where the average incomes of the wealthiest 10% are almost ten times greater than those of the poorest 10%. We should remind ourselves, however, that this does not take creativity capital into account. An individual's identifiable creativity capital may account for their very high earnings. Cases such as these are theoretically consistent.

It can be observed in practice that, with the exception of the USA and China, the weaker a country is economically and organisationally the higher is its Gini wage index. The Nordic states of Denmark, Sweden, Finland and Norway, as well as Austria and Slovenia and many developed Western countries, have a Gini wage index of approximately 30.0 and below. We can make a rough assessment of a proper or desirable level for the Gini wage index in respect to wage income by measuring human capital, a task which was undertaken by Kozioł (2009, pp. 21–32), who studied the diversity of a group of employees in terms of education and experience. His approximate result was 0.24. Poland, whose real index is estimated to be some way above 0.30, has excessive wage inequalities.

5. An Economy without Budget Deficits; Elementary Modifications to Tax

Self-financing labour can contribute to all remuneration paid in the public sector, which means that there is no need to draw on funding from taxation.

This does not mean, though, that the public sector can grow unchecked. The size of public sector compensation depends on the labour productivity ratio. The theory presented here rests on the firm assumption that the Q ratio does not decline. The most likely outcome would be continuous, slow growth. The computations of Q for the USA and Poland are presented in Table 2.

Table 2. Labour Productivity Ratio (2014)

Country	Poland	USA
GDP in 2014	PLN 1,729 billion	USD 17,419 billion
Total hours worked	32,069 million hours	262,055 million hours
Average rate per hour	PLN 27.00	USD 19.00
Q – labour productivity ratio	1.997	3.577

Source: The Conference Board Total Economy Database, May 2015, http://www.conference--board.org/data/economydatabase/. Accessed: 7 August 2015; http://www.statista.com/statistics/263591/gross-domestic-product-gdp-of-the-united-states/. Accessed: 7 August 2015.

As shown in Table 3, it is now possible to divide GDP according to labour share and assets share. A coefficient of 0.23 was applied to calculate public sector compensation for Poland, which was discussed and approved by a team from the Polish Ministry of Finance. A lower coefficient of 0.20 was selected for the USA because, unlike Poland, it is not a post-socialist country with a massive public sector. The adoption of 0.2 as the factor determining the relationship between public-sector remuneration and all remuneration in the USA reflected a cautious attitude to calculating the expected benefits, which could be considerably greater. The total gross annual benefits of applying the self-financing of labour were estimated at almost USD 974 billion. This amount would of course be reduced due to gains from money emissions, that is, gains from the central bank. This position would gradually disappear. The calculations are set out in Table 3.

It would be an absolute necessity to use the additional money (PLN 160,634 million in the case of Poland) to exempt the legal minimum wage, and pensions and benefits paid at that level, from direct payroll tax. The legal minimum wage is consistent with the theory of human capital in the USA and in many developed countries. It has been demonstrated (Dobija 2011b, 2015) that setting the minimum wage at that level allows human capital to be preserved. Unfortunately, this is not the case everywhere. The legal minimum wage is at approximately 85% of its theoretical value in Poland and approximately 50% in Ukraine. Labour productivity in Poland and Ukraine is not high enough to permit a legal minimum wage to be consistent with the

theory of human capital (Dobija 2011b, pp. 780–87). This raises the problem for employees earning the minimum wage of how they can maintain their human capital. Their natural response is to seek employment abroad.

Table 3. Labour Share of GDP and the Effect of Labour Self-financing (Data for 2014)

	Country	Poland	USA
1	GDP in 2014	PLN 1,729 billion	USD 17,419 billion
2	Q – labour productivity ratio	1.997	3.577
3	Labour share GDP/Q	PLN 865,799 million	USD 4,869,723 million
4	Asset share	PLN 863,201 million	USD 12,549,277 million
5	Public sector compensations	$0.23 \times 865{,}799 =$ = PLN 199,134 million	$0.20 \times 4{,}869{,}723 =$ = USD 973,945 million
6	Budget deficit	PLN 30,000 million	USD 483,000 million[a]
7	Gains from central bank	PLN 8,500 million	USD 96,900 million
8	Surplus (5) – (6) – (7)	PLN 160,634 million	USD 386,100 million

[a] Joint Statement of Treasury Secretary Jacob J. Lew and Office of Management and Budget Director Shaun Donovan on Budget Results for Fiscal Year 2014.

Source: http://www.treasury.gov/press-center/press-releases/Pages/jl2664.aspx. Accessed: 8 August 2015.

An adequate minimum wage for all employees is 8% of their personal human capital, which refers to the capital acquired from professional education and from experience. Based on research into human capital, there are grounds to suggest that payroll taxation is consistent with the principle of preserving employees' capital. A small, direct tax is however possible when the unproductive activities present in all jobs are taken into account. For this reason a modest payroll tax might be acceptable in the case of higher earnings. The proposal is as follows:

– pay at the level of the minimum wage (MW) and equivalent incomes is tax free,

– pay greater than the MW and less than 5 × MW (the Plato rule) may be taxed with a ratio not exceeding 10%. The amount of any excess above the MW is subject to tax,

– pay greater than 5 × MW could be taxed at a higher and progressive rate. The amount of any excess above 5 × MW could be taxed progressively. Progression can be reduced in comparison to the normal ratio in the case of individuals with demonstrable creativity capital.

Despite self-financing labour, a country still needs to finance the maintenance of existing fixed assets and new investment in the public sector. The assets share tends to be larger in the case of richer countries. Hence the USA's assets share is 72% and its labour share only 28%. In Poland, which is a much poorer country, the assets share is almost 50%, which means that the labour share is almost identical. There is thus a need to raise taxes to finance public assets, such as roads, motorways, bridges, buildings, infrastructure, school equipment, research facilities and army equipment. One simple and efficient way to do this is to introduce a sales tax such as that applied in the USA.

Since these organisations draw on social resources in the form of people, infrastructure and the legal framework, income tax from corporations and companies is another source of public revenue. Parents have to work hard to increase the human capital of their descendants, while schools also contribute to the growth of human capital. Though businesses employ this human capital, and often pay a fair remuneration in return, the work of mothers is not taken into account. There are very good reasons, such as to contribute to infrastructure maintenance, why business organisations should pay income tax. It should be set at a level that depends on income over a given period.

According to research concerning the economic constant of potential growth (Dobija 2015, pp. 578–94), the standard or benchmark value for return on assets is 0.08 [1/year]. The most advanced study of the rate of return on assets has been made by Kurek (2011, pp. 122–25), who studied entrepreneurship. Return on assets (ROA) expresses the ratio of profit (capital increase) to the total capital included in a firm's assets. Kurek based his study on the balance sheets and income statements of all of the companies belonging to the S&P 1500 over a twenty-year period. The author conducted a statistical survey to test the hypothesis that the average risk premium estimated by ROA, and calculated using *ex post* data, would be 8.33%. The hypothesis was not rejected by the results. The confidence interval at a confidence level of 0.99 was 8.25%–8.89%, while the mean was 8.57% and the standard deviation 14.81%. Since the relative precision of estimation was 3.75%, the relative error did not exceed 5.0, which indicates that the statistical forecasting was reliable (Kurek 2012, pp. 364–72). Kurek also examined data from smaller collections, such as the S&P 600 (small companies) and the S&P 400 (mid-sized companies). Both returned similar results: the average for the former was 7.41% and the average for the latter

was 8.85%. A greater relative error was recorded, but it was insufficient to invalidate the statistical forecasting.

We turn now to the sources of profits. The correlation between corporate profits and profits on shares is clear. Enterprises calculate the depreciation of fixed assets and usually pay a fair rate for the work of human capital, neither of which allow for the depreciation of capital. Companies pay for supplies and they also pay taxes to the external environment. If businesses are managed reasonably, we are entitled to expect that all of their contractors will obtain a fair share of the surplus created. If we rule out malpractice, what is the source of profits? This is of course not comparable to risk, which is the source of unforeseen costs and losses. The answer lies in nature which, as the physiocrats already knew, provides for the reproduction of capital and the creation of surplus value.

Górowski (2010, pp. 160–69) has introduced the remarkable idea of combining two aspects of income tax. The first is driven by the need to pay for the exploitation of social wealth and resources (the fixed part) and the second is the amount of income earned (the variable part). This involves the idea of standard income (I_s) determined by the economic constant of potential growth $p = 0.08$, which is thus the value $I_s = p \times C_0$, where C_0 denotes the capital embodied in a company's assets at the beginning of the year. Therefore, if t_e denotes the tax rate of the fixed part, and t_v denotes the tax rate of the variable part, the income tax on an actual income (I_a) is determined as follows:

$$\text{Income tax} = t_e \times I_s + t_v \times (I_a - I_s). \tag{15}$$

Taxation is strongly associated with government policy which, if it is to be conducted wisely, should be based on scientific research and stable facts. While it is the task of economic theory to answer questions about the sources of profits and the indicator of the standard return on assets, it is left to politicians to set tax rates.

There are ways in which this idea may be enriched. As discussed by D. Dobija (2003, pp. 187–209), the ROAH ratio is a natural generalisation of ROA because it takes account of the capital embodied both in assets and in employees. Thus $\text{ROAH} = (I_a + p \times H)/(A + H)$. The human capital can be estimated from the formula $L = p \times H$. In this way $H = L/p$, where H denotes the human capital of a company's employees and L denotes basic pay. Then the ratio $\text{ROAH} = (I_a + L)/(A + L/p)$. Since it involves both assets and human capital, a generalised ratio of this kind is more adequate for all company forms.

The proposals set out above for payroll tax and company income tax make intensive use of the economic constant of potential growth, which is a scientific fact stating that under normal conditions the average growth rate of capital in an economy is 8%. Barrow (2003, pp. 201–91) wrote the following in the conclusion of the book he published exploring the role of constants in explaining reality: "Our discovering of the patterns by which nature works and the rules by which it changes led us to the mysterious numbers that define the fabric of all that is. The constants of nature give our universe its feel and its existence. (…) They define the fabric of the universe in a way that can side-step the prejudices of a human-centered view of things". We would be well served if the fundamental laws and constants were taken into account in the policy-formation process, which would bring the further benefit of anchoring the debate in reality. It is the spirit of this idea that underlies this paper.

6. Conclusion

If labourism is to be implemented as the main theory of the economy, one of the fundamental requirements is that the labour productivity ratio Q, which occupies a central place in the formulas resulting from the wage equation of exchange, must not be allowed to decline. The Q ratio limits total pay and, as a consequence, public-sector compensation. If this principle holds, money maintains its value and the public sector is limited to its proper dimensions in the economy concerned. The exchange rate of a country's currency changes due to the parity of labour productivity, that is, in the case of USD and PLN, the value of quotient Q_{Poland}/Q_{USA} determines whether the Polish zloty (PLN) is weaker or stronger (Jędrzejczyk 2012, pp. 780–85). As has been stated elsewhere (Dobija 2014a, 2014b), countries in which Q does not decline can participate successfully in currency integration because they do not generate inflation.

Figure 1 illustrates the very essence of the money economy and explains the disturbing role of payroll tax. In that it naturally prevents the depreciation of human capital, compensation should be fair. When this is the case, employees create adequate demand. Yet taxation means that the compensation of large numbers of employees is unfair. The stream of money then has too low a value compared to that of products. A sales tax, on the other hand, does no direct harm to human capital. If one is introduced, the cost of living will rise and compensation will need to be raised to a fair level in response. The most important point to grasp is that labour finances

everything in the economy. It is for this reason that labour itself, including – very importantly – public-sector labour, never requires financing. The application of these ideas will produce a balanced economy with no budget deficit or destructive taxes.

Many years ago, Benjamin Franklin expressed the rather gloomy opinion that: "in this world, nothing is certain except death and taxes". This distinguished and most respected polymath may have lived at a time when money circulated in the form of coins, but Weatherford (1997, pp. 132–35) describes him as "the father of paper money" and relates the story of how, in 1729, he published *A Modest Enquiry into the Nature and Necessity of a Paper Currency*, which helped launch paper money in North America and the rest of the world. At that time there were at least two options available. The first was that paper money could have been understood and accepted as a certificate and measure of work done, in which case the system of paper money would have promoted labourism as the main economic idea. The second was the one that was acted upon. Enforced by the authorities and the banks, this is the way that has brought us to monetarism. The first of the available choices was motivated by the desire to forge an economy in which taxes would be limited. What was entailed in the second, meanwhile, was that giving money to somebody means the authorities have to take it from somebody else and raise taxes to do so. While monetarism is characterised by budget deficits, growing debts and severe taxes, labourism, fortified by its scientific fundamentals, holds out the hope of low taxes and a friendly economy with no budget deficits. While some measure of modest taxation may be necessary to finance public assets, it need not be severe unless a country is at war or preparing for war. Were this vision of a low-tax economy with no budget deficits to come to pass, Franklin's famous remark might lose some of its sting.

Bibliography

Atkins, P. (2007) *Four Laws that Drive the Universe*. New York: Oxford University Press, pp. 3–78.

Banerjee, A. and Maskin, E. (1996) "A Walrasian Theory of Money and Barter". *Quarterly Journal of Economics* CXI (4): 955–1005.

Barrow, J. D. (2003) *From Alpha to Omega, The Constant of Nature*. London: Vintage Books, pp. 201–91.

Bliss, Ch. (1975) *Capital Theory and the Distribution of Income*. Oxford: North-Holland Publishing, p. 7.

Bliss, Ch., Cohen, A. J. and Harcourt, G. C. (2005) *Capital Theory*. Volumes I–III. Northampton, Mass.: Edward Elgar.

Bryer, R. A. (1994) "Why Marx's Labour Theory is Superior to the Marginalist Theory of Value: The Case From Modern Financial Reporting". *Critical Perspective on Accounting* 5: 313–40.

Buchholz, T. (2007) *New Ideas from Dead Economists. An Introduction to Modern Economic Thought*. New York: A Plume Book, pp. 229–34.

Dobija, D. (2003) *Pomiar kapitału intelektualnego przedsiębiorstwa* [Measuring a company's intellectual capital]. Akademia Leona Koźmińskiego, Warszawa, pp. 187–209.

Dobija, M. (1998) "How to Place Human Resources into the Balance Sheet". *Journal of Human Resource Costing & Accounting* 3 (1): 83–92.

Dobija, M. (2005) "Financing Labour in the Public Sector without Tax Funds". *Argumenta Oeconomica Cracoviensia* 4: 5–20.

Dobija, M. (2007) "The Abstract Nature of Capital and Money" in Linda M. Cornwall (ed.) *New Developments in Banking and Finance*. New York: Nova Science Publishers, Inc., pp. 89–114.

Dobija M. (2008) "Labour Productivity Ratio and International Comparison of Economic Performance – Formalization of the PPP Theory and Preliminary Examinations". *EMERGO* 13(1): 5–20.

Dobija, M. (2009) "Natura i piękno zapisu podwójnego" [The nature and beauty of double-entry]. Zeszyty Naukowe Uniwersytetu Ekonomicznego w Krakowie No. 796, pp. 5–20.

Dobija, M. (2011a) "The Abstract Nature of Money and the Modern Equation of Exchange". *Modern Economy* 2 (2): 142–52, May, http://dx.doi.org/10.4236/me.2011.22019.

Dobija, M. (2011b) "Labor Productivity vs Minimum Wage Level". *Modern Economy* 2 (5): 780–87, http://dx.doi.org/10.4236/me.2011.25086.

Dobija, M. (2014a) "Formation of the Integrative Currency Area". *SOP Transactions on Economic Research* 1 (1): 1–9.

Dobija, M. (2014b), "The Global Currency Area: A Way to Constructively End the Era of Reserve Currency". *Modern Economy* 5(4): 289–302, http://dx.doi.org/10.4236/me.2014.54029.

Dobija, M. (2015a) "Laborism: The Economics Driven by Labour". *Modern Economy* 6: 578–94, http://dx.doi.org/10.4236/me.2015.65056.

Dobija M. (2015b) "Economics Approaches the Fork in the Road: Labor Self-Financing and Tax Free Compensations or Toil of Deficit and Deflation". *International Journal of Accounting and Economics Studies* 3(2): 86–94, http://dx.doi.org/10.14419/ijaes.v3i2.4290.

Dobija, M. and Kurek, B. (2013) "Towards Scientific Economics". *Modern Economy* 4 (4): 293–304, http://dx.doi.org/10.4236/me.2013.44033.

Garrison, R. W. (2001) *Time and Money. The Macroeconomics of Capital Structure*. London and New York: Routledge, pp. 7–8.

Górowski, I. (2010) "Podatek dochodowy jako kategoria ekonomiczna" [Income tax as an economic category] in M. Dobija (ed.) *Teoria pomiaru kapitału i zysku* [The theory of measuring capital and profit]. Cracow: Wydawnictwo Uniwersytetu Ekonomicznego w Krakowie, pp. 160–69.

Ijiri, Y. (1993) "The Beauty of Double-Entry Bookkeeping and its Impact on the Nature of Accounting Information". *Economic Notes* 22 (2): 265–85.

Ijiri, Y. (1999) "The Cost Principle and the Labour Theory of Value in Relation to the Role of Accounting Theories and their Depth" in S. Sunder and H. Yamaji *The Japanese Style of Business Accounting*. Westport: Quorum Books, pp. 177–190.

Jędrzejczyk, M. (2012) "Labor Productivity Parity vs Trend of Exchange Rate". *Modern Economy* 3 (6): 780–85, http://dx.doi.org/10.4236/me.2012.36099.

Kozioł, W. (2009) "Struktura wiedzy w społeczeństwie jako determinanta godziwych nierówności płacowych w gospodarce" [The structure of knowledge in society as a determinant of fair wage inequalities in the economy]. Zeszyty Naukowe Uniwersytetu Ekonomicznego w Krakowie No. 796, pp. 21–32.

Kozioł, W. (2014) "Rozwój teorii pomiaru kapitału ludzkiego i godziwych wynagrodzeń" [The development of the theory of measuring human capital and fair wages] in M. Dobija (ed.) *Teoria rachunkowości. Podstawa nauk ekonomicznych* [Accounting theory. The basis of economic science]. Cracow: Wydawnictwo Uniwersytetu Ekonomicznego w Krakowie, pp. 156–93.

Kurek, B. (2011) *Hipoteza deterministycznej premii za ryzyko* [A hypothesis of the deterministic risk premium]. Cracow: Wydawnictwo Uniwersytetu Ekonomicznego w Krakowie, pp. 122–25.

Kurek, B. (2012) "An Estimation of the Capital Growth Rate in Business Activities". *Modern Economy* 3 (4): 364–72, http://dx.doi.org/10.4236/me.2012.34047.

Kurek, B. and Dobija, M. (2013) "Scientific Provenance of Accounting". *International Journal of Accounting and Economics Studies* 1 (2): pp. 16–24, http://dx.doi.org/10.14419/ijaes.v1i2.1054.

Lietaer, B. (2004) "Complementary Currencies in Japan Today: History, Originality and Relevance". *International Journal of Community Currency Research* 8: 1–23.

Pacioli, L. (1494) *Summa de Arithmetica, Geometria, Proportioni et Proportionalita*. Venice.

Renkas, J. (2012) "The Empirical Test of the Model of Human Capital and Minimum Wages". *Nierówności społeczne a wzrost gospodarczy* 24: 345–56.

Robinson, J. (1953–54) "The Production Function and the Theory of Capital". *Review of Economic Studies* 21 (2): 77–89.

Rosenberg, N. and Birdzell, L. E. (1994) *Historia kapitalizmu* [The history of capitalism]. Cracow: Signum, pp. 186–89.

Rushkoff, D. (2008) "Open Source Currency" in J. Brockman (ed.) *What Is Your Dangerous Idea*. Edge Foundation. Polish edition: "Niebezpieczne idee we współczesnej nauce". Sopot: Smak Słowa, pp. 244–44.

Smith, A. (1776) *An Inquiry into the Nature and Causes of the Wealth of Nations*. Book I, Chapter V, http://www.econlib.org/library/Smith/smWN2.html.

Solow, R. (1963) *Capital Theory and the Rate of Return*. Amsterdam: North-Holland Publishing Company, pp. 7–9.

Struve, W. (1969) "Some New Data on the Organisation of Labour and on Social Structure in Sumer During the Reign of the IIIrd Dynasty of Ur" in I. M. Diakonoff (ed.) *Ancient Mesopotamia. Socio-Economic History*. Moscow: Science, pp. 127–72.

Weatherford, J. (1997) *The History of Money. From Sandstone to Cyberspace*. New York: Three River Press, pp. 132–35.

Abstract

Ekonomia z ograniczonymi podatkami. Laboryzm

Przedstawione rozważania wskazują, że układ fundamentalnych pojęć ekonomicz-
nych nie był dotychczas jednoznacznie wyjaśniony. Zrozumienie kapitału i pracy jako
podstawowych i komplementarnych kategorii ekonomicznych prowadzi do zrozumienia,
że pieniądze są także kategorią abstrakcyjną i powstają w procesie pracy jako należ-
ności z tytułu wykonanej pracy. Oznacza to, że praca nie potrzebuje finansowania,
ponieważ sama się finansuje, czyli tworzy pieniądze. Uznanie tego stanu rzeczy oznacza
potrzebę wprowadzenia rozwiązania instytucjonalnego. Naturalne rozwiązanie polega
na nadaniu bankowi centralnemu funkcji płatnika wynagrodzeń dla sektora publicz-
nego i kontrolera wskaźnika produktywności pracy limitującego płace w gospodarce,
przy likwidacji dotychczasowej funkcji emisji pieniądza. Ta funkcja nie ma uzasadnie-
nia naukowego, lecz jedynie polityczne. Obliczenia ukazują, że w tym systemie znika
deficyt budżetowy i otwierają się możliwości wprowadzenia reformy porządkującej
i obniżającej podatki.

Słowa kluczowe: kapitał, praca, pieniądze, wartość, podatki.