

TOWARDS A NEW APPROACH TO INCOME DISTRIBUTION AND ENVIRONMENTAL SUSTAINABILITY

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The paper argues that, in contemporary market economies, most production is debt financed. In order to pay off these debts, there is a necessity for economic growth that results in enormous waste of human effort and a misuse of the earth's resources. The Douglas-Orage Social Credit analysis, which attracted world-wide attention during the 1920s and 1930s, concluded that the pressure for economic growth, induced by the role of finance, led inevitably to economic and military rivalry between nations, and to long run environmental degradation, because short run maximization decisions squander non-sustainable resources, whilst ignoring the 'third party' social benefits and costs that arise out of the process of exchange. The Draft Mining Scheme put forward by Douglas and Orage in 1920 sought to avoid these difficulties by devolving responsibility for finance to industrially based local producers' banks. Such a financial system could create a framework under which ecological sustainability becomes economically viable. Economic developments over the decades since the Douglas - Orage texts were published have emphasized the need to remove the dominant role of finance in determining economic and industrial policy.

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INTRODUCTION

In 1916 an unknown engineer turned accountant lighted upon a curious observation. Sifting through the accounts of Farnborough Aircraft Factory with the aid of early tabulating machines, Douglas noted that the factory was generating costs at a much faster rate than it was distributing incomes. Since the same was true for over one hundred large businesses in the UK, it followed that only a part of the final product could be distributed through

the incomes generated by its production. Furthermore, as technology changed and industrial processes lengthened, the ratio of overheads to current wages increased,

indicating an escalating fall in the proportion of the final product capable of being distributed through income generated at that stage. Hence distribution of the remainder depends upon work in progress on future production, financed by loan credit, export credits, centralization of industrial power and consumer borrowing. Production is debt financed. The result is an enormous waste of human effort and the earth's resources in order to maintain 'full employment'. Douglas concluded that the resultant necessity for economic growth led inevitably to economic and military warfare between nations, accompanied by environmental degradation (Douglas, 1919).

The standard objections to Douglas's thesis were contradictory. According to some, the cost-income gap was an illusion. Douglas had failed to realize that all costs represented sums paid out as incomes in previous periods, ignoring the time factor, the essence of his analysis. Others objected that Douglas merely stated the obvious: the monetary and economic system must inevitably operate in this way to stimulate new production and maintain employment, thereby overlooking Douglas's proposition that the objective of production should be to meet a sufficiency of consumer wants: 'employment' or profit should not be ends in themselves (Douglas, 1919). Social credit non-equilibrium economics arose through Douglas's collaboration with A. R. Orage, the guild socialist editor of *The New Age*, leading, to numerous publications and a vigorous popular debate with orthodoxy throughout the interwar years.

SOME SHORTCOMINGS IN NEOCLASSICAL THEORY

The theoretical division between neoclassical theory and Douglas economics could stem from logical flaws in either body of analysis. Here we examine the shortcomings of general equilibrium theory. In the Douglas analysis, technological advance offered the potential for reduction in work hours for all, accompanied by an increase in time available for cultivation of arts, crafts and learning. Instead technological advance was leading to simultaneous increases in production and unemployment, accompanied by prodigal consumerism, dumping of 'surplus' foods and export of that most wasteful of all forms of production, armaments, as a means to maintain a viable economy. The option to produce and consume less was not on offer.

General equilibrium theory cannot handle the concept of sufficiency. While acknowledging resources to be finite, it assumes material wants to be infinite, purporting to be the science of the efficient allocation of those finite resources in order to maximize welfare.

There is, however, no evidence to link increased material consumption with higher welfare. While it is possible to link growth in production with greater profitability, simultaneous increases in pressure on the social and environmental fabric upon which economic activity ultimately depends can be observed. The orthodox economic way of thinking, which builds up 'aggregative stories from individual decisions' (Krugman, 1996, p4), leads to deceptively neat models, purporting to offer a 'scientific' basis to the study of economics. However, physical and biological phenomena are attributes of the natural world. They can be examined, even within limits affected or controlled by human agency, but in the last resort they are 'givens'. The key difference between economics and any science is that economic institutions are created by people. Douglas's 'sin' was to tread on hallowed ground by declaring finance to be a man-made institution and hence capable of adaptation by intelligent human action.

Neo-classical theorists argue that economics, like any other science, uses measurement and prediction to create models and predict outcomes. Finance is a matter for accountants. Economics is the study of market equilibrium: supply and demand are brought into equilibrium by utility on the one hand and profitability on the other. Freed from normative values, this 'objective' science purports to model what people actually do.

According to general equilibrium theory, income accrues to individuals by virtue of their ownership of a factor of production which is in demand. Hence ownership of land, capital or labour is rewarded to the extent that the owners can supply the factor in response to demand. Conventional economists treat endowment of ownership of factors as given exogenous, non-economic datum. Reward to a factor is deemed appropriate to recompense the loss or disutility of parting with a stated quantity of the factor owned. Since the majority of incomes derive from the sale of the factor labour, we examine neoclassical theory on the demand for and supply of labour.

LABOUR AS UTILITY

Traditionally, it is assumed that, holding technology and market conditions constant, the demand schedule based on the marginal productivity of labour will slope downwards from left to right, while the supply schedule based on the marginal disutility of work will slope upwards. An equilibrium price for labour (wage) is achieved at the point of intersection of the two functions. If technology changes, enabling capital to be substituted for labour, a different demand schedule may result in a lower equilibrium wage. It is customary for attention to focus on variations in the demand for labour, with analysis of their effects upon wage rates and employment. Throughout, labour is assumed to be a pure disutility. Hence individuals respond 'rationally' to fluctuations in wages, giving rise to an upward sloping supply curve for labour. Under normal conditions, as wages rise, more labour comes forward to offer its services, and more will be prepared to work longer hours. Exceptions may occur: for example, the opportunity cost of leisure time required to spend higher income may on occasions generate a backward-sloping schedule. Nevertheless the basic relationship is held to be generally positive, so that higher wages induce more labour supply by compensating for the higher marginal disutility of work. Labour as disutility is an essential core assumption in general equilibrium theory.

However, once a subsistence minimum has been achieved, the simple utility/disutility dichotomy possesses little practical relevance. People gain satisfaction (utility) from work. Satisfactions may include a sense of security, professional pride, continuation of family tradition, social contact, contribution to society, a sense of service, learning new skills, prestige, status, power over people and events, personal growth in skills, emotions and intellect, creativity, and a structure and rhythm to life (Dominguez and Robin, 1992). In this scenario, financial reward is one factor among many drawing 'labour' onto the market. Price is not the sole, or even necessarily the dominant factor. Consequently, the supply schedule for labour may well run horizontally, or even in reverse: there is no evidence that it *must* slope upwards and so intersect with the demand curve in line with general competitive equilibrium theory.

Pure disutility of labour belongs to the slave state. Where the master/employer owns the means of production, the labourers being denied access to land, tools, skills and time, a simple reward and punishment system may apply. Neoclassical theory operates on an extension to this system, regarding 'labour' as the factor/wage-slave to be bought and sold as a commodity. In the 'instrumental' view of work, labour, 'necessarily painful, is a means to an end, considered to be desirable or pleasurable, such as earning money, which in turn is a means to other desirable ends, like buying goods or gaining leisure' (Lee, 1989, p 231). Within this system labour is rewarded by a basket of commodities which, beyond a basic subsistence minimum, are 'wants' artificially stimulated by the system (Hodgson, 1988, p 20).

INTERNAL AND EXTERNAL GOODS

According to Lee, the system 'celebrates acquisitiveness, egoism and destructive competition' while it represses cooperation and intrinsic satisfaction in a task well done (Lee, 1989, p 236). In Lee's view,

such a set of ecologically insensitive values (ESV) . . . is not consonant with the laws of thermodynamics and the principles of ecology. A social, moral theory embodying such values, which are at odds with so established and fundamental a science as thermodynamics, must be judged, therefore, to be wrong, inadequate, misleading and, indeed, even fantastic . . . A new type of social arrangement, reflecting [ecologically sensitive values], ought to replace the existing social arrangement which embodies ESVs (Lee, 1989, p 197).

The principles of ecology, in keeping with the laws of thermodynamics, indicate the absolute scarcity of the 'low entropic energy and matter' from which beefburgers and cars are produced, resulting in entropy, waste and pollution (Lee, 1989, p 204). As it causes an ever-increasing rate of consumption, exponential economic growth hastens this depletion. It is not physically possible for all members of present and future generations to continue to follow the imperatives of economic growth. Consumption of resources at an escalating rate must lead to ecological bankruptcy and increasing inequality in a 'zero-sum, divisive, competitive game, necessarily with few winners and many losers' (Lee, 1989, p 226). Nobody is content, for the emphasis is on ever-increasing possession and consumption of material artefacts. In this game, satisfaction is gained from the mere legal ownership of goods and their conspicuous consumption: things are status symbols, Veblen's 'conspicuous consumption'.

By contrast, Lee draws attention to the existence of 'internal goods', skills in arts, languages, music and so on. Acquisition of these internal goods requires time and some minimal access to external goods in the form, for example, of a musical instrument. However, acquisition does not deprive others of access to the same goods. Indeed, a skilful musician or linguist may add to total utility by imparting skills to others on a cooperative, win-win basis, increasing the general stock of skills and knowledge with minimal ecological impact (Lee, 1989, pp 210-226).

DYNAMICS OF DEBT FINANCE

By noting the significance of debt finance over time in uniting the twin processes of production and distribution, Douglas progressed towards the creation of Lee's 'new type of social arrangement' capable of accommodating 'ecologically sensitive values'. In orthodox analysis factors of production float in a free market void, awaiting demand determined by utility to set them into productive motion. By contrast, in actually existing capitalist economies, production and distribution are initiated by finance capital.

Land, labour and machinery remain unemployed unless and until the factors are united through finance capital. The 'factor sequence theory' states that among the factors of production, capital must be secured first so that land can be rented and labour hired. In unregulated free market conditions 'competition tends to maximise the income of capital' (Fountain, 1996, p 8). Significantly, the level of output and its nature (guns for the few at the opportunity cost of food for the many) are determined by the profitable use of capital.

The body of economic theory known as Douglas Social Credit was globally popular in the interwar years (see Hutchinson and Burkitt, 1997a). Douglas demonstrated through his much-maligned A + B theorem that decisions relating to the production and distribution of wealth, and hence to the welfare of all, were dependent upon an archaic system of accounting dating back to the pre-industrial era of single-stage production. According to orthodox theory, e.g. Say's (1804) law, goods and services exchange in barter-like conditions where markets clear. In reality, money (unlike barter) enables a time lag to develop between purchases and sales. Consequently finance capital plays a determining role in defining the ownership and use of the common heritage of goods, resources, skills and knowledge accumulated by society as a whole over untold past generations. Financial viability determines choices even when needs go unmet while resources lie idle.

The 'credit' that provides the motive power for the economy is divided into two categories, 'financial credit' and 'real credit'. " 'Financial' credit is simply an estimate of the capacity to pay money" (Douglas, 1922, p 35). Purchasing power is created on financial criteria. Producers of goods can borrow to initiate production if they are also potential producers of money.

If we say that Real Credit concerns the supply of goods while Financial Credit concerns the supply of money, the distinction may be a little clearer. Real Credit is not measured by the actual supply of goods, but by their *potential* supply. The measure of Real Credit is, in fact, the correct estimate of the ability to produce and deliver goods as and when required . . . by the potential consumer (Douglas, 1920b, pp 156—157; emphasis original).

Real credit 'is a measure of the effective reserve of energy belonging to the community . . . The banking system has been allowed to become the administrator of this credit and its financial derivatives, with the result that the creative energy of mankind has been subjected to fetters which have no relation whatever to the real demands of existence' (Douglas, 1919, p 118). The potential real wealth of society is communal in origin, and should therefore belong to the entire community. The financial system is administered by the banking system 'primarily for the purpose of private profit, whereas it is most definitely communal property' (Douglas, 1919, p 118).

The properties of money are central to the operation of the economy. If we ask ourselves 'Why do we produce now? The answer is . . . to "make" money. Why do we want to make money? The answer is twofold. First, to get goods and services, afterwards to give expression, often perverted, to the creative instinct through power' (Douglas, 1922, pp 53—54). The initiation of production is determined through the control of credit-issue. Thereafter, articles can be forced on a 'misguided public' by 'advertisement and monopoly'. According to Douglas, under the present system the public has no 'valid, flexible, active control' over the initiation, development and modification of production (Douglas, 1920, pp 91-92). In the same vein, Freeman and Carchedi note that the distinctive feature of modern economics, namely money, is eliminated by general equilibrium theory. '(It) is reintroduced *post hoc* as the subject of a distinct branch of theory, monetary economics, so that the economy is neatly divided into two self-contained and allegedly self-determined sectors, the "real" economy or goods market and the "nominal" economy or "money" market' (Freeman and Carchedi, 1996, p xii).

General free market equilibrium analysis holds that ownership of factors of production gives entitlement to income through the process of market exchange. The endowment of ownership of factors is a non-issue for such orthodoxy. Whereas Marxists would propose state ownership of the means of production as the ethical alternative to private capitalist exploitation of labour, Douglas adopted a novel stance, advocating common ownership on the basis of the communal cultural heritage.

OWNERSHIP AND PROPERTY RIGHTS

Although excised from neo-classical theory, property rights are fundamental to the operation of any economic system. 'Property is a triadic social relation involving benefit streams, rights holders and duty bearers' (Bromley, 1991, p 2). Bromley adopts a Kantian position: the state should not support the rights of individuals, compensating them for loss, as liberal economists claim in relation to environmental degradation. Rather, rights are collective, within the state. There are no 'natural rights' without the collective. This has always been the case since human society began, under the ancient social contract of ordered social relations.

There is no such thing as a common property *resource* — there are only natural resources controlled and managed as common property, or as state property, or as private

property. Or ... there are resources over which *no property rights* have been recognised (Bromley, 1991, p 2; emphasis original).

Bromley observed that the so-called 'tragedy of the commons' (Hardin, 1973) arose from terminological confusion of common property with open access regimes in which there are no property rights. 'Property ... is a benefit (or income) stream, and a property right is a claim to a benefit stream that the state will agree to protect through the assignment of duty to others who may covet ... the benefit stream' (Bromley, 1991, p 2). Bromley presented the case for restoration of common property regimes on a local scale, criticizing those economists who remain wedded to the misconception that institutions can be regarded as exogenous parameters providing a fixed (institutional) environment. In similar vein Polanyi (1944) noted that free market economics is not a natural system ordained by God. On the contrary, legislation created a legal framework enabling land to be bought and sold, enshrining denial of common rights of access to the means of subsistence by self-reliant peasant farmers. While Polanyi argued the case for removing land, labour and money from the market in order to leave it free to operate in response to consumer choice (Polanyi, 1944, pp 241-242), Douglas showed how this could be done.

According to Douglas finance should, in fact as well as in theory, become a neutral arbitrator between demand and supply. Like Bromley, he held that individual private contributions to wealth creation were minuscule and hence deserving of no individual reward. Wealth is created in cooperation with others and draws upon the vast 'cultural heritage' of skills, processes, materials and knowledge developed by countless generations of the past. Douglas was scathing of the notion that invention (the true source of wealth), whether in arts, science or technology, could be stimulated through the carrot and stick of the pay packet. Since individuals contribute to society for the reasons previously outlined, they will continue to offer service largely independent of financial incentives. A popular feature of his programme was a system of 'consumer credits' or a 'national dividend' payable to all citizens on the strength of the common cultural heritage. Central to social credit theory was the quest for community control over production and distribution through endorsement of community banking and finance (Hutchinson and Burkitt, 1997a, 1997b).

THE FINANCE OF PRODUCTION, DISTRIBUTION AND EXCHANGE

Like Galbraith (1975) and Niggle (1990), Douglas reviewed the origins of money and observed the financial mechanisms involved in its circulation, noting that the ways in which money enters the economy are crucial to the entire process of production, distribution and exchange. In a pre-industrial economy, with low division of labour and single-stage production, money could function purely to facilitate exchange. However, in an advanced industrial economy money is constantly being created in respect of future production. The process, undertaken by banks and monitored by economists, was conducted as if the rules of the pre-industrial barter economy held good under conditions of industrial production. Nationalization of the banking system, in itself, would merely provoke a shift of private bankers to the nationalized banks, which would be operated on the same presuppositions.

The alternative, as outlined in the Draft Mining Scheme (Douglas, 1920, pp 147-212), was to adapt the present system to take account of present reality. Essentially, the proposal was to devolve responsibility for finance to the most local level on an industry basis. The concept flowed from guild socialist theories of industry-based trade unions where manual, clerical and managerial workers combined to run an industry as a cooperative venture. In these guild socialist proposals the term 'industry' was very loosely interpreted to include not only mining, as in the Draft Mining Scheme, but also the medical 'industry', teaching, transport workers and so forth (see, e.g., Hobson, 1919, pp 152—169). The common factor was a locally based, vertically integrated guild, overseeing all stages of production through control over its financing, supported by a central clearing-house.

Although the detail of the Draft Mining Scheme may no longer be relevant, finance administered locally for local purposes, overseen by a central clearing-house, is a novel alternative

to the debt-driven growth-economics of global finance. Theoretically compatible with both Local Exchange Trading Schemes (LETs) and ethical investment (Sparkes, 1995), local 'industry'-based finance extends these initiatives into a broader context in which ecological sustainability becomes economically feasible.

CONCLUSION

In the 1990s, extension of private property rights to cover trade-related intellectual property rights (TRIPs) and the patenting of life forms (Lang and Hines, 1993; Baumann et al, 1996) calls for a redefinition of inputs to the productive process. Theories of value have placed undue emphasis upon physical inputs, while failing to acknowledge the dependence of all economic agents upon the vast reservoir of inherited knowledge which forms an indivisible pool of common cultural property. Over the decades, since the publication of the Douglas social credit texts, the case for a re-evaluation of the role of finance in the formation of policy within a global economy has been in no way diminished.

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