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Calculating profit: A historical perspective on the development of capitalism

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A B S T R A C T

The paper introduces the notion of different methods of calculating and analysing profitability as signatures of capitalism at different stages of development. Its point of departure is Bryer's thesis of the capitalist mentality, which is subject to theoretical and empirical critique and developed in new directions. Interactions between the development of the productive forces and the socialisation of capital ownership jointly impact on these signatures, such that profit calculations are historically contingent. Aspects of feudalism, particularly restrictions on usury impacted upon accounting calculation, retarding their development. In the industrial revolution calculations reflected the scale and scope of specialised investment in plant, whilst the progressive socialisation of capital prompted a separate set of calculative practices. It was only in the 20th century, with the unification of large scale industry and finance capital that the modern notion of profitability as return on capital employed finally developed.

Introduction

The 'Sombart thesis' that it is impossible to envisage capitalism without accounting (Sombart, 1916), has been usefully extended first by Weber and more recently by Bryer. Weber (1927) suggested that the specific signature of capitalism was not merely double entry bookkeeping (DEB), as suggested by Sombart, but the existence of the capital account which supports rational computation of income yield through modern bookkeeping. Bryer (2000a, 2000b, 2005, 2006a, 2006b) develops the point, arguing *broadly* that what is important is the capitalist mentality, evidenced by the *type of calculations* that accounts are used for and manifested as accounting signatures. More *narrowly*, Bryer (2005, p. 25) identifies capitalism with the calculation of rates of return and more specifically still, the return on capital employed (ROCE). In doing so, Bryer offers a completely new and ingenious perspective on the relationship between accounting and capitalism (Chiapello, 2007, p. 274).

In view of the potential importance of Bryer's contribution, this paper seeks to offer a measured critique of the arguments and evidence as presented primarily in recent papers in this journal and elsewhere, in the form of a systematic historical survey of profitability calculations. Whilst one might wish to be broadly supportive of Bryer's approach as a means of taking forward this important area of debate, there are a number of points requiring further development before this can be done. First, if there is to be an understanding of the accounting and capitalism relationship as a series of transitions in the development of a calculative mentality, which is a feature of Sombart and Weber as well as Bryer, the role of scholastic doctrine in the retardation of such development needs greater recognition. Specific aspects of the feudal superstructure, the usury laws, the 'just price' (the social regulation of prices at cost of production), and related scholastic doctrine, significantly undermines the likelihood of feudal and capitalistic calculative mentalities as described by Bryer.

Calculative mentalities described in such terms lead to a second problem. Accounting signatures, such as the feudal rate of return, which for Bryer (2005, pp. 29–30, and Fig. 2) is the accounting signature of capitalistic merchants, and

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the rate of return on capital employed in production, signifying the full capitalist mentality, are questionable as interpretations of Marx, and of doubtful benefit as indicators of the transition from feudalism to capitalism. Finally, as far as empirical evidence is concerned, Bryer's hypothesis predicts and makes claim to widespread use of rate of return calculations from a relatively early date. However, as will be demonstrated, when this evidence is exposed to detailed scrutiny, these calculations do not correspond very well to Bryer's signatures, and fully ROCE calculations make a much later appearance than suggested in his previous empirical surveys. As is the case with the majority of Bryer's research, Britain is the empirical focus of this discussion.

ROCE requires careful definition, which is provided in detail below. In general it is defined broadly for the purposes of this article as the ratio obtained by dividing some measure of profit (as a flow of income) by some measure of capital (as a stock of wealth). It is evident however, that if ROCE is an accounting signature, there are a number of definitional permutations. As will be shown, the precise form of profitability calculations is historically contingent and they are subject to considerable variation. It is therefore necessary to offer a detailed definitional taxonomy of ROCE calculations, which is introduced at the beginning of the empirical section of the paper.

The theoretical contribution of this paper is to show that variation in the method of ROCE calculation reflects the organisation of the forces of production (the economic base) *and* the socialisation of capital (the social superstructure) *and* the process of their interaction. As Marshall (1982, pp. 115, 117) suggests, the division of labour and horizontal and vertical integration of complex processes call forth the capitalist mentality in the form of systematic profit calculation whilst at the same time economic conduct is a negotiated outcome of social action and ideological constraints on action. The accounting signature is thereby manifested in corresponding and contingent analytical computations of profit and profitability. In other words, accounting technique and calculation is the outcome of a process that includes the capitalist spirit or mentality. Such an approach contrasts with much of the literature which sees the development of accounting technique as a precursor or facilitator of the capitalist spirit of rationality (Sombart, 1916; Weber, 1927; Winjum, 1971), or indeed the notion of capitalism itself (Chiapello, 2007). It is however, consistent with interpretations that allow the co-existence of techniques in the same historical period so that reasoning itself is not a sufficient explanatory variable (Lemarchand, 1994), or a legitimation process for pre-existing moral attitudes (Carruthers & Espeland, 1991), or as signatures for categories of economic organisation (Bryer, 2000a, 2000b). Nonetheless an entirely new approach is offered to these debates by representing accounting calculation as a mutating dependent variable explained by the dynamic interaction of asset deployment and asset ownership.

The historical contribution of the paper is to re-examine Bryer's and others' evidence to show that accounting calculation as a signature can only be understood by the simultaneous consideration of the material basis of economic activity and the prevailing mentality. Admitting this approach suggests that instead of highly specific calculative methods as signatures of capitalism and feudalism, the evidence shows considerable diversity of method, unevenness of development and a relatively protracted evolution to what might be described as modern methods of capitalist calculation. In contrasting these to the methods employed under feudalism and during the Reformation, the paper answers a call for further research (Carmona & Ezzamel, 2006, p. 125) by providing examples of how religion creates and enforces a notion of social order, and how accounting helps shape and secure this notion of order.

To develop these ideas, the remainder of the paper is set out as follows: the second section considers the computation of profitability ratios from the perspective of scholastic doctrine and accounting theory. It begins with a re-examination of the Sombart–Weber thesis and the origins of Bryer's calculative mentality from the perspective of medieval scholastic doctrine. It then considers critically the relationship of Bryer to Marx, showing that Bryer's exegesis of Marx places conceptual limitations on the application of an otherwise powerful analytical approach. The section concludes with some theoretical support for a historically contingent taxonomy of profitability ratios. The third section reviews the empirical evidence, first through a re-examination of the case studies used by Bryer and then with reference to a second series of new examples which have not been referenced previously in the context of these debates. The fourth and final section draws conclusions.

Profitability: a theoretical re-examination

Scholastic doctrine and the capitalist mentality

Capitalism is defined for the purposes of the current argument as a system of private appropriation of profit at any rate independently of interest rates or labour effort.[1] Such a definition is convenient for placing accounting calculation at the centre of the analysis of the development of capitalism. The definition implies that capitalism exists concomitantly with the notion of 'super-profits'. Capitalism is also about the private appropriation of profit, which is enforceable through contract and other institutions of law and governance. Because contracts are often incomplete, private enforceability is partial and therefore risky. The association between capitalism and excess profit also implies that there must be a measurement process, achieved by accounting techniques, such that profit can be ascertained. In Weberian terms this means the presence of calculable law, which would allow legal enforcement of such profits (Collins, 1980, p. 928). Under pure feudalism, the required institutions of law that presuppose a legal and measurable surplus did not exist and the creation of such legal codes was strongly

[1] Transitional and fully developed capitalism are specific categories for the purpose of these definitions, both of which correspond to a generic definition of capitalism, as a mode of production characterised by the private ownership of the means of production by a class to the exclusion of the majority of the population (Desai, 1991, p. 71).