

## THE NEW ECONOMIC HISTORY: A DISCUSSION OF CLIOMETRICS

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*To plan for our future, it is necessary to learn from our past. However, since so much of history is essentially based on perceptual bias, how are we most effectively to learn from this past? In this paper, Simon Mee explores the evolution of cliometrics, 'the new economic history'. He examines how it came into existence and how it differs from the traditional school of economic history. Through an analysis of the 'slavery debates' he goes on to describe the key methods of this field of study. Finally, the essay questions the merits and contributions of cliometrics to economic history and concludes that by combining both qualitative and quantitative perspectives we can learn the most from our economic past.*

### Introduction

*'If cliometricians were asked to write a history of the crucifixion, they would begin by counting the nails'<sup>1</sup>*

The study of economic history can be traced back to Adam Smith, who balanced his theory and reasoning with frequent reference to statistical and historical illustration. Economic history has in the past acted as an antidote to economists' reliance on abstract theory. It is a combination of two disciplines that has experienced a curious evolution since the time of classical economics. The introduction of cliometrics represented a significant break from the past. In the period after the Second World War, a sizeable shift occurred in the methods and techniques applied in approaching economic history. Aided by the arrival of the computer, these new approaches were the product of a younger generation of economic historians who had been shaped and influenced under the pressure of

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<sup>1</sup> Eugene Genovese, quoted in (Fogel, 2003: 22)

the particular historical situation in which they grew up. Famous cliometricians such as Robert W. Fogel, Douglass North, Davis and Alfred H. Conrad were all born within eight years of each other (Redlich, 1965).

The work of this generation soon came to be known as the ‘new economic history’, often referred to as ‘econometric history’ or ‘cliometrics’, a reference to the muse of history, Clio.<sup>2</sup> This essay will attempt to distinguish cliometrics from the traditional school of economic history, and look at its emergence from the late fifties onward. Through a critical discussion of the ‘slavery debates’ the essay will then go on to examine the key features behind cliometrics, including the growing emphasis upon quantitative constructs and the systematic use of economic analysis in applying these constructs. The essay will conclude with an evaluation of cliometrics’ contribution to economic history.

## **Cliometrics and the Traditional School of Economic History**

Cliometrics is the systematic application of the behavioural models of the social sciences and their related mathematical and statistical methods to the study of history (Fogel, 2003). Quantitative techniques are used to make interpretations and reconstructions of the past. Whereas much of the traditional economic historian’s work was limited to the location and simple classification of existing data, the cliometrician actively ‘reconstructs measurements ... no longer extant’ (Redlich, 1965: 482). They began using methods to combine existing data with new measurements in order to gain better insight into the topic at hand. Most economic history up to this point had remained primarily qualitative, with numerical information used largely as illustration. The training of historians did not tend to direct them towards the discovery of quantitative records. Indeed these records were most likely to be found in government offices, business firms and savings institutions. The interpretation of such documents often required certain technical skills that the ordinary historian simply did not possess (Conrad and Mayer, 1965). Cliometricians on the other hand, often came from a background in economics, and set out to reconstruct American economic history on a quantitative basis.

Thus cliometrics was deemed a controversial approach by the academic community; many historians refused to accept it as good history. The sheer emphasis on quantitative measurements and techniques tended to confound historians from the older generation. Since it was solely based on concepts and data, it seemed to disregard one of the most important sources favoured by

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<sup>2</sup> In Greek mythology, Clio is the muse of history.

historians; primary sources (Engerman, 1977). The overriding concern with economic determinants led to a neglect of the various moral judgments which until then had featured prominently in American historiography. In a broader sense, traditional economic historians had primarily dealt with the development of economic institutions, with a secondary focus on the processes taking place therein. Cliometrics however tended to deal primarily and directly with the economic processes, while neglecting economic institutions.

One of the factors underlying the controversy surrounding cliometricians were the substantive conclusions they had established, which in effect challenged the well-established propositions of traditional historiography. Had cliometrics produced the same conclusions, there may well not have been so much debate and notoriety surrounding it. Some traditional economic historians reacted as if they were being collectively accused of blunders in their work. As Fogel remarks, cliometricians ‘refused to be bound by the established rules of engagement, and they blithely crossed ideological wires in a manner that perplexed and exasperated traditional historians....’ (Fogel, 2003: 19).

## The Slavery Debates

Until the 1950s, discussion of the economic consequences of slavery was dominated by the work of Ulrich B. Phillips. Phillips’ influential book, *American Negro Slavery*, was first published in 1918 and went on to become the accepted canon of knowledge on the nature of the American slave system. The ‘Phillips school’ maintained that slavery was an inefficient system that stifled the growth of the South in the Antebellum Period, and that by the time of the Civil War the institution was moribund (Poulson, 1981). He purported that the main purpose of plantation slavery was not economic, but social; slavery was kept in existence because of the transitory resolve of a class long accustomed to its peculiar social institutions (Fogel, 2003).

This interpretation of American slavery went unchallenged until 1956, when the publication of Kenneth M. Stampp’s *The Peculiar Institution* attacked the inadequacies of Phillips’ argument. Stampp denounced Phillips’ emphasis on the ‘benevolence’ of slaveholders and instead portrayed the plantation system as merciless and exploitative (Smith, 1998). Interestingly, Stampp went on to conclude that slavery was actually an efficient economic system. This was an assertion which generally passed unnoticed at the time, but it nonetheless caught the attention of some up-and-coming cliometricians. While the older generation of historians received the work with scepticism, it was enthusiastically embraced by the young revisionists. It was this research, along with the seminal work of

Alfred H. Conrad and John R. Meyer that helped to shape the debate which was to follow over the next three decades (Conrad and Meyer, 1958).

Conrad and Meyer's work gave cliometrics its first formulated expression of the new approach; quantitative method could be used to verify a qualitative hypothesis. From then on, a steady flow of papers using this new approach appeared with increasing rapidity. The most controversial of these contributions to the literature on the southern economy were the studies of Robert W. Fogel and Stanley L. Engerman. In 1974, *Time On The Cross* was published, resulting in national fame and notoriety for the authors. The book was as controversial for its reliance on certain statistical data as it was for its findings. Within *Time On the Cross*, three central topics were addressed: the profitability and economic viability of slavery, the rate of southern economic growth between 1840 and 1880 along with the factors which influenced it, and the relative productivity of slave and free agriculture (Fogel and Engerman, 1974). Through quantitative methods, such as regression analysis, they found that the productivity of southern farms exceeded that of northern farms by roughly thirty-five percent, and that the majority of this difference could be explained by the greater efficiency of the slave plantations. Between 1840 and 1860, per capita income actually increased more rapidly in the South than in the rest of the nation. Furthermore, the Negro slave produced as much output in thirty-five minutes as a free farmer did in a full hour (ibid). They argued that this was due to the intensive utilization and specialization of the slave labour force; under the plantation system the slave labour force was highly coordinated.

Fogel and Engerman's book attacked Phillips, Genovese and other historians in their interpretation of the South as a pre-capitalist society. *Time On The Cross* depicted the slaveholders as behaving like rational businessmen, who ordered their plantation work regimens along the lines of northern factories. In other words, the plantations were treated as capitalist enterprises where profit was the underlying motive, not social reasoning. One example of this they argued, could be seen through slave prices: ten year old slaves were cheaper than twenty-six year olds, who were priced twice as high. This was because the latter cost the planter less money to rear and because the older slave procured a higher return.

The authors of *Time On The Cross* refused to let moral judgment interfere with their argument. For them, it lay outside the economic realm. Some historians however, have criticized Fogel and Engerman's application of economic models to slave society. Was it appropriate to apply the concepts of economic exploitation and economic efficiency to a mode of production based upon involuntary servitude? Was it right for the qualitative to be measured by quantitative methods? These questions directed the economic historian towards

an examination of the features which lay behind cliometrics: the growing emphasis upon quantitative constructs and the systematic use of economic analysis in applying these constructs. As they discovered, cliometrics is far from a perfect approach.

### **Counting the Nails: Cliometrics and Methodology**

With regard to the use of quantification, the ‘new economic history’ is a somewhat misleading name. It has been argued that there is nothing ‘new’ about the approach. In his Boston address of 1963, Fogel asserted that the effort ‘to rediscover and present numerical information relative to historical processes’ was not a recent one (Redlich, 1965: 482). The foundations of the quantitative methods go back to the thirties and forties, with men such as John Clapham and Walt W. Rostow (Davis, 1966). However these were isolated attempts, and though data was available for some time, the techniques required to analyse and interpret it systematically had not been perfected until after the Second World War (Fogel and Engerman, 1974). Fogel later went on to say that the innovative aspect of the cliometrician’s work was the actual approach to measurement and theory; the underlying process through which they applied this economic data. Nonetheless, the emphasis on quantitative methods has its disadvantages. Figures and numbers themselves do not represent the processes of the cliometrician at work. Figures are quantitative symbols which stand for something: the *result* of a process. By using these figures in time series, or through regression analysis, an impression is incorrectly given that they represent the process, whereas in reality they merely acted as ‘yardsticks’ (Redlich, 1965).

In addition, restricting the emphasis to quantitative constructs imposed something of a limit on any possible analysis or interpretation which could occur. It was often noted that many cliometricians were not as willing as Fogel to ‘get their hands dirty’ in terms of reconstructing data (Davis, 1966). There tended to be a concentration of work based on the public sector, due to the fact that such data was already available. This concentration therefore tended to mirror not the importance, but the relative availability of data (*ibid*). As a result, cliometricians tended to draw strong criticism from traditional historians, who accused them of ‘easy work’ (Engerman, 1977: 79).

The possible restrictions posed by the lack of reliable data are quite evident in Conrad and Meyer’s influential essay *The Economics of Slavery in the Ante-Bellum South* (1958). One critic found that in the first section of their essay, Conrad and Meyer resorted to heaping dozens of additional assumptions on top of the basic one in order to make the data suitable. They were in effect twisting

their model, and ultimately their conclusion, to suit their data. Thus it is not difficult to see why cliometrics received its share of criticism. The choice of model used by the cliometrician was to be a constant source of debate between those economic historians trained as economists and those trained as historians. It was a crucial assumption that fundamentally affected the outcome - and possible revision - of economic history more than any new detailed examination of data, for it is the choice of model through which the data is analysed.

Yet the shift in the extent and nature of quantitative measurement was to be seen with the publication of *The Economic Growth of the United States, 1790-1860* by Douglass North (1961). It was the nature of the subject matter which led this book to be much debated. North stated in the preface of his book that due to the preoccupation with description and institutional change, there had yet to be a comprehensive and integrated analysis of the United States. While it previously had been custom to provide separate treatments of various sectors within the economy, North attempted to capture economic growth as a whole. His work represented a fundamental expansion in the remit of quantitative analysis and in turn inspired many young economic historians to push the boundaries of cliometrics.

However, it was the use of 'counterfactual hypotheses' for which cliometricians were notorious. Essentially, the counterfactual hypothesis attempted to establish and measure what *could* have happened in order to understand what *did* happen. An example of this was when Robert Fogel tested a widely accepted thesis by asking whether the railroads were really the central feature in American development (Fogel, 1964). Controversially, he designed a model of the nineteenth century United States without railroads and found that America's development would not have changed much since alternative methods of transportation would have taken over.

This finding caused a furore among the academic establishment. Redlich accused Fogel of attempting 'quasi-history', in that counterfactuals were fundamentally alien to economic history (Redlich, 1965). However, Fogel countered with the argument that the traditional economic historian abounds in disguised counterfactual assertions, citing the example of traditionalist essays which argue that slavery retarded the development of the South (Fogel, 1971). In Fogel's view, the difference between the old and new approach 'is not the frequency with which one encounters counterfactual propositions, but the extent to which such propositions are made explicit' (ibid: 10). The counterfactual brought difficulties into the analysis in terms of deciding where it was necessary to draw the line once some changes were introduced, and of defining the time period over which the underlying assumptions seemed acceptable.

## **Cliometrics and Theory**

There were rapid advancements made in the field of economic theory during the post-war period. Advances in the theory of economic development allowed cliometricians to measure the growth of nations more accurately. National income had only recently become an operational construct, due to the influential work of Wesley Mitchell and Simon Kuznets at the National Bureau of Economic Research. It was only in 1946 that estimates of national income back as far as 1869 were made available (Engerman, 1977).

Through increasing emphasis on theory - particularly neoclassical economic theory - cliometricians were able to circumvent the possible problem of poor data. Theory allowed the cliometrician to analyse data in the context of a given framework. This introduction of neoclassical theory into economic history led to a heated debate: the theoretical world in which market forces and totally rational human beings operate without friction is a long distance from the actual world in which societal rules and customs, as well as complex human motivations, interfere heavily with economic phenomena. Indeed, to subject the past to utility maximisation was in effect to argue in favour of understanding the economic past as a totally observable environment.

## **Conclusion**

It is clear that cliometrics is not without its faults. Some questionable works have appeared due to the tendency of some cliometricians to assume that it is only necessary to apply economic theory with quantitative techniques and call it history. While it is true that some problems can be traced to poor technical practice, it must be noted that bad work does occur in all scholarly research. It is often forgotten that the historical past is not a plain truth; rather it is a construct and interpretation of the person who chooses to write about it. One can ask if history - economic or otherwise - could ever be objective. However, to imply that quantitative techniques and data could offer the objective purity that the reader desires would be misleading. As has already been seen, the quality of the data and the econometric model will always distort the conclusion drawn, allowing the cliometrician to make what he will of the past, just as any other historian can. History itself is far too intricate, far too complicated a process to be analysed through numbers and quantitative techniques alone. After all, there was more to the crucifixion than the number of nails.

Nevertheless, one cannot deny the clear advantages that cliometrics has offered; it has expanded the boundaries and techniques of what economic history

can achieve. It is true that, over the years, cliometrics has evolved in its approach with the proper use of quantitative methodology, and it has been this maturity which has allowed cliometrics to establish itself as a proper school. It was a reaction to the traditional economic history that came before it, and in turn has gone on to shape historical research and writing to this day. The two schools have travelled a long way since their acrimonious struggle of the sixties and seventies; passions, egos and tempers have long since calmed. Critics at the time argued that cliometrics was too limited, too rigid an approach to allow for proper historical debate. They said its emphasis on quantitative methods led to an excessive narrowing of the question. With hindsight however, specialized knowledge can help add pieces of history together to provide answers to broader questions. After all, it was Adam Smith who pointed out that specialization and division of labour are not without benefits when working towards a common goal. Indeed, it is hard to ignore the substantial interdependence that has since emerged between the two approaches over the years. By maintaining a delicate balance between the two schools, the economic historian can have the freedom of qualitative judgment while using quantitative methodology to support his argument.

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