

AFC

ASSOCIATION FRANÇAISE
DE CLIOMÉTRIE

WORKING PAPERS

Nr. 2, 2015

Clio's Contributions to Economics and
History

Claude DIEBOLT, Michael HAUPERT

Clio's Contributions to Economics and History

Claude Diebolt (cdiebolt@unistra.fr) and Michael Haupert (mhaupert@uw.lax.edu)

Draft October 14, 2015

Introduction

Economic history is a subset of history. Both economists and historians are trying to tell plausible stories about the past, and they succeed or fail by narrative standards to connect one event to another. Cliometrics has transformed the study of economic history from a narrative to a mathematical format. In the process, cliometricians have contributed to the development of both economics and history by combining theory with quantitative methods, constructing and revising databases, and adding the variable of time to traditional economic theories. This has made it possible to question and reassess earlier findings, thus expanding the frontier of our knowledge of the past and its ability to portend the future. The use of history as a crucible to examine economic theory has deepened our knowledge of how, why and when economic growth and development has and will occur.

In December of 1960 the “Purdue Conference on the Application of Economic Theory and Quantitative Techniques to Problems of History” was held on the campus of Purdue University. It is recognized as the first meeting of what is now known as the Cliometric Society. While it was the first formal meeting of a group of like-minded applicants of economic theory and quantitative methods to the study of economic history, it was not the first time such a concept had been broached, practiced, or even mentioned in the literature.¹ Cliometrics was a long time in coming, but when it arrived, it eventually overran the approach to the discipline of economic history, leading to a split between economists and historians, and the blurring of the distinction between cliometricians and theorists who use historical data.

The first practitioners of cliometrics are considered to be Alfred Conrad and John Meyer, who published “Economic Theory, Statistical Inference, and Economic History,” in the *Journal of Economic History* (JEH) in 1957 after its presentation earlier that year at the joint meetings of the *Economic History Association* and the *NBER Conference on Research in Income and Wealth*.

¹The term “cliometrics” first appeared in print in Davis, Lance E., Hughes, Jonathan R. T., and Reiter, Stanley, 1960, p 540.

They followed that in 1958 with a paper demonstrating the cliometric methodology as it applied to slavery in antebellum America.²

In 1964 Robert Fogel published his seminal research on the impact of the railroad on American economic growth. It proved to be a true revolution in the history of economics, even a complete break with the tradition. It re-established a role for history in economics by expressing it in the language of the discipline. Since that time, the use of econometric techniques and economic theory has contributed to the rejuvenation of economic history debates, made quantitative arguments unavoidable, and contributed to the emergence of a new historical awareness among economists.

The rise of cliometrics, originally known as “new” economic history, has fostered much debate about the proper balance of economics and history in economic history. In 1971 Gavin Wright surveyed the development of cliometrics. He argued that the “new” economic history was more about the use of economic theory than the use of econometrics in the study of history.³ In agreement, Deirdre McCloskey defined a cliometrician as an economist applying economic theory to history. She claimed that it was not the sophistication of the model, but the use of a model at all that differentiated the “new” economic history from the old.⁴ A decade earlier Thomas Cochrane portrayed the difference between the traditional practice of economic history and the new cliometric movement as a “controversy over types of models: the old say that realistic models usually have to be too highly generalized or too complex to allow the assumption of mathematical relationships; the new are primarily interested in applying operative models to economic data.”⁵

The origin of cliometrics

Clio’s roots are historical in nature, and its focus on theory has actually come full circle over the last century and a half. A mathematical movement in the economics discipline, advanced computing technology, and a shift in the focus of the role of history within economics all contributed to the proliferation of the “new” economic history that rewrote the landscape of

²Conrad and Meyer, 1958.

³Wright 1971.

⁴McCloskey, Deirdre [Donald], 1978.

⁵Cochran, Thomas C. 1969.

the discipline. The emphasis on theory and formal modeling that distinguishes cliometrics from the “old” economic history now blurs the distinction between economic history and economic theory.

Cliometrics today is closely related to, but not necessarily the same thing as its progenitor, economic history. While there is considerable overlap between the membership of the *Cliometric Society* and its American brethren, the *Economic History Association (EHA)*, the latter has many more members who reside in history departments than does the Cliometric Society. Indeed, one of the great criticisms of the cliometric movement is the wedge that it has driven between the practitioners of economic history in history and economics departments due to its focus on quantitative measures and neoclassical theory.⁶

But contrary to the perceived divergence of economists and historians, the skills of a cliometrician include, and indeed require, those of both the economist and the historian.⁷ In his inaugural presidential address to the *EHA*, Edwin Gay noted that economic historians needed to wed the skills of the economist with the historian in order to accomplish their task. He believed the molding of these two skill sets were essential, but not easy to accomplish.⁸ That has not changed over the past three quarters of a century. What has changed is the degree to which those economic skills have become more formalized and technically demanding.

The clash between cliometricians and historians today is not all that different from the clash between economists and historians that began in the 19th century. Carl Menger compared historians to foreign conquerors, complaining that they were forcing their terminology and methods on economists.⁹ Half a century later, Thomas Ashton accused those who objected to the idea that economic theory should be applied to history of not truly understanding the nature of economics.¹⁰

⁶Boldizzoni 2011.

⁷Perhaps more than anyone, D.N. McCloskey has been responsible for holding all economists, not just economic historians, accountable for moving the frontiers of knowledge forward and not simply using the latest techniques to measure something because it can be measured. For example, see McCloskey 1978, 1985, 2006.

⁸Gay 1941.

⁹Menger 1884.

¹⁰Ashton, 1946.

Economic history originated largely as a revolt against classical theory and in its early years it shunned the use of statistical techniques. By the 1920s the attitude toward theory and statistics began to soften. Cliometrics is the continuation of this theoretical-quantitative tradition, now fortified by advances in economic theory, the melding of economics with approaches from other disciplines, and the growth of computing power. The latter has had profound impacts on the ability to analyze and disseminate data.

*Contributions of Clio*¹¹

To date, the main achievements of cliometrics have been to slowly but surely establish a solid set of economic analyses of historical evolution by means of measurement and theory, and, following the path blazed by Douglass North, to recognize the limits of neoclassical theory and bring into economic models the important role of institutions. Indeed, this latter focus ultimately spawned a new branch of economics altogether, the new institutional economics. Nothing can now replace rigorous statistical and econometric analysis based on systematically ordered data. Impressionistic judgements supported by doubtful figures and inadequate methods padded by subjective impressions have now lost all credibility.

By extension, the more the quest for facts is dominated by the conception of the problems, the more research will address what forms the true function of economic history in the social sciences. This change of intellectual orientation, of cliometric reformulation, can thus reach other human and social science disciplines and engender similar changes.

Indeed, the most vigorous new trend in the social sciences is without a doubt the preoccupation with quantitative and theoretical aspects. It is the feature that best distinguishes the concepts of the current generation of scholars from its forbears. Even the most literary of our colleagues is ready to agree to this. There is nothing surprising about this interest. One of the characteristic features of today's younger generation of scholars is most certainly that their intellectual training is much more deeply marked by science and the scientific spirit than that of the generations that preceded them. It is, therefore, not surprising that young scientists should have lost patience with regard to the tentative approach of traditional historiography and have sought to build their work on foundations that are less "artisanal."

¹¹For a more in depth discussion of the contributions of cliometrics see Haupert 2016.

Human and social sciences are thus becoming much more elaborate in the technical respect, and it is difficult to believe that a reversal of the trend is likely to occur. However, it is also clear that a significant proportion of human and social scientists have not yet accepted the new trends aimed at using more elaborate methodology and clear concepts conforming to new norms in order to develop, in the tradition of Robert Fogel, a truly scientific human and social science.

Economic history has enjoyed a resurgence due to a number of recent topics, including financial crises, the increasing divergence in living standards, new institutional economic history, anthropometric history, and environmental history. The contributions of cliometrics can be broadly categorized as either technique, data, revision, or new approaches.

Technique

Technique is what many people think of when they hear the term cliometrics. Certainly the advancement of econometric theory and computing power have contributed greatly to the techniques used by cliometricians. In the early issues of the *Journal of Economic History* the appearance of an equation was rare. As the “new” economic history took hold under the editorship of Douglass North and William Parker in the early 1960s, equations and the occasional OLS regression began to appear regularly. Today, that occasional OLS regression has been replaced by the latest econometric advancement. It is now a rare article in the *JEH* that does not rely on the latest econometric advances as part of its analysis. However, technique is not merely mathematical sophistication at its utmost. One of the earliest and still useful techniques available to the cliometrician is the counterfactual.

Counterfactual analysis is the idea of determining the impact of an event or factor by considering what would have happened in its absence. Fogel was not the first to use this form of identifying opportunity costs,¹² but he was the most extensive user of it and became famous for his use of the technique in his landmark railroad study. He attempted to estimate how much less developed the America economy would have been had there been no railroads. Although historians were familiar with counterfactual arguments, the idea of an explicit counterfactual measurement was still a foreign notion in the early 1960s. The concept of social savings is itself an important research tool, but Fogel greatly advanced its significance by defining it

¹²Before Fogel the concept was proposed by Conrad and Meyer (1957) and Fritz Machlup (1952).

operationally, so that his calculations could be tested against alternative estimates and possible alternative definitions. The publication of Fogel's railroad study generated an entire subdiscipline of parallel studies and, more importantly, provided a methodological foundation for the systematic study of economic history and long-term economic growth.

Fogel showed how well economic history could benefit from the careful application of theory and econometrics. The work immediately generated substantial controversy, and even today some quibbling over minor details occurs. However, time has failed to overturn Fogel's major conclusions: that per capita income growth would have been set back only a few months had the railroads never been invented, and that no other industry was likely to have been more important than the railroads. Since its publication, the great majority of economic history has been written by scholars employing those basic economic and econometric tools.

Fogel defined the methodological features of cliometrics. He considered it fundamental that cliometrics should stress measurement while recognizing the existence of close links between measurement and theory. Indeed, unless it is accompanied by statistical and/or econometric processing and systematic quantitative analysis, measurement is just another form of narrative history. It is true that it replaces words with figures, but it does not bring in any new factors. In contrast, cliometrics is innovative when it is used to attempt to model all the explanations of past economic development. In other words, the main characteristic of cliometrics is the use of hypothetico-deductive models that call on the closest econometric techniques with the aim of establishing the interaction between variables in a given situation in mathematical form.

This generally consists of constructing a model—of general or partial equilibrium—that represents the various components of the economic evolution in question and showing the way in which they interact. Correlations and/or causalities can thus be established to measure the relative importance of each over a given period of time.

Peter Temin identifies three techniques that have emerged as particularly useful in these wide-ranging explorations.¹³ The first is modern econometrics. First generation cliometricians used simple econometrics, which were a new way to learn from data in the historical literature. “Simple” econometrics was cutting edge a generation ago, but has since given way to more

¹³Temin 2016.

sophisticated tools. An important characteristic of cliometrics has been its willingness to embrace the most recent techniques.

The second technique utilizes the ideas behind event studies to examine the effects of turning points and decisions in economic history. Discontinuities provide information on the structure of economic systems that may not be apparent from their smooth operation in normal times. Legal boundaries provide discontinuities over space, and events ranging from crises to discoveries provide discontinuities over time. These important historical events clarify the structure of economic activity and provide evidence to test preconceived ideas about economic history.

The third useful technique is to examine events over several generations. This long range perspective generally distinguishes economic historians from other fields of economics. A long term view allows us to study the effects of demography and education that often are simply held constant in current economic analyses. These two approaches run into each other as we go further back in the past, as we sometimes find the effects of dramatic events in the fortunes of people over several generations. As usual among economists, we distinguish ideal types to think about processes that can be seen as a continuum from another point of view.

Compilation of data sets

Cliometrics has also contributed large and expansive data sets for researchers. The accumulation of the data is in itself monumental in many respects, but its usefulness has been expanded by the rapid growth of computing power. The ability to handle “big data” is not a cliometric issue by itself, but the construction of significant, important historical data sets, which can then be analyzed using the latest econometric techniques and computer programs, is very much a contribution of cliometrics.¹⁴

Fogel long argued that the lack of relevant data more than the lack of relevant theory is often the greater hurdle in historical research. In this way, economic historians have made some of the greatest contributions to the fields of economics and history by discovering and compiling new data sets that can then be used by future researchers to better understand the evolution and growth of economies over time.

¹⁴The listing of all such databases publicly available is massive. For an example of the size and scope of such endeavors, see the list of databases on eh.net.

Fogel pioneered the use of large-scale cross-sectional and longitudinal data sets culled from original sources to examine current policy issues, and his multitude of graduate students went on to do the same in their careers.¹⁵ Robert Fogel reunified economics and history. “Using the best techniques of modern economics and gathering the widest samples of historical data he has reinterpreted American economic growth. Rather than conjecturing on the causes of growth he has asked persistently “how large?” and seen the way to answer. He has set a new standard for empirical thoroughness in economics and a new standard of logical cogency in history. The quantitative history he advocates has opened new ways to the past. The historical economics he helped create, an economics made wiser by a knowledge of history, brought economics back to the larger questions.”¹⁶

But Fogel was not the first to recognize the importance of reliable, comprehensive data sets. During his service to the U.S. government during WWI, Edwin Gay became convinced of the need for better economic statistics. He and Wesley Mitchell headed the *Central Bureau of Planning and Statistics*, responsible for the gathering and reporting of statistical data. Together they helped found the NBER to stimulate the collection and interpretation of historical statistics.

Mitchell served as research director at the NBER for the first quarter century of its existence.¹⁷ He gathered tremendous amounts of empirical economic data in order to draw inductive generalizations from it, and issued an urgent call for more data collection from around the world. The NBER was central to this data collection effort and served as a sort of haven for statistical economists. The mission of the NBER was to gather empirical information of many kinds about the American economy in order to create a robust foundation for theoretical generalizations.

The NBER ultimately served as a catalyst for the change in emphasis from narrative to quantitative studies in economic history. Mitchell, Simon Kuznets, Arthur Burns, Solomon Fabricant, and Harold Barger produced a series of quantitative descriptions of American economic growth while at the NBER that measured growth as far back as the 1870s. The culmination of this quantitative approach to descriptive economic history was the *Historical*

¹⁵Goldin and Rockoff 1992, p 1.

¹⁶McCloskey 1992, p 25.

¹⁷From 1921 to 1945.

Statistics of the United States produced by a committee of scholars and published by the U.S. Census Bureau in 1960.

Revisions

Revisionist history is not a complimentary term, but the revision of misunderstandings in history is certainly both important and necessary, not just for the reason of setting the record straight, but helping us understand how and why economies grow (or do not grow, as the case may be). A clear understanding of the causes of economic growth is among the most important things an economic historian can do. Cliometrics has overturned some accepted wisdoms and in the process caused hard feelings, resentment, and controversy. However, they have also pushed forward the frontier of our understanding of economic growth and development.

Among the notable “revisions” made by cliometricians were the findings of Conrad and Meyer (1958), Yasuba (1961) and Sutch (1965) that slavery was indeed a profitable investment. They used capital theory models to determine this. Easterlin (1961) used revised GNP figures to show that income in the antebellum South grew at a faster rate than previously believed, and Fogel (1964) showed that the railroad was not the determinant of American economic development that it was believed to have been.

Another book that made an impression as indelible as Fogel’s railroad research was his own controversial *Time on the Cross: The Economics of American Negro Slavery*, coauthored with Stanley Engerman in 1974. They treated slavery as an institution and examined its role in the economic development of the United States. They showed that the established opinion that slavery was an ineffective, unprofitable, and pre-capitalist organization was incorrect. They argued that slavery did not fall to pieces due to its economic weakness but collapsed because of political decisions and that in spite of its inhumanity it had been economically efficient. This research was understandably highly controversial both within and outside of the field of economics. It attracted considerable attention and generated volumes of research in an attempt to either refute or refine the findings.

New approaches

Finally, cliometrics has spawned entire new approaches to the study of economics. At the forefront are the new institutional economics, pioneered by Douglass North, and anthropometrics, which counts among its initial practitioners Robert Fogel. It is no coincidence that these two were recognized with the Nobel Prize in Economic Science in 1993.

North was an early practitioner of the “new” economic history. In one of his most famous papers he measured the impact of decreased transoceanic shipping costs. His surprising finding was not that shipping costs decreased, which was widely recognized at the time, but that it was not technology, so much as institutional changes that were the source of the decreased costs - less piracy and quicker turnaround times. This emphasis on institutions ultimately defined North’s career.

Perhaps the most influential book to come from the new economic history is North’s *Economic Growth of the United States, 1790-1860* (1961). Though seriously lacking in through empirical research, its contribution “lay in the vivid and concrete way it showed American historians how a large economic model, nonmathematical but theoretically sophisticated, could be used to organize the economic materials for the several American regions over half a century of economic history.”¹⁸

In North’s early work (1961 and 1966) he focused on the standard neoclassical explanations for economic growth (technology, human capital, technological change). But when he began to study European economic history he concluded that the neoclassical model was not able to explain the kind of fundamental societal change that had characterized European economies for the past 500 years. This led him down the path of what would become the new institutional economics, making him an early proponent of two different revolutionary schools of economic practice: cliometrics and new institutional economics.¹⁹

In a number of books, beginning with *Institutional Change and American Economic Growth* (1971, with Lance Davis), North demonstrated the importance of the role played by institutions (including property rights) on economic development. In *Institutions, Institutional Change and Economic Performance* (1990), he posed the fundamental question of why some

¹⁸Parker 1980, p 12.

¹⁹See Galiani and Sened (2014) for a discussion of North’s role in the new institutional economics movement.

countries are rich and others poor. His conclusion was that institutions are a major determinant in the profitability and feasibility of economic activity. The greater the institutional uncertainty, the greater the transaction costs and the greater the drag on economic growth and development. These views were a novel approach in both the history and development fields. Typical economic growth models focused on technological change and capital accumulation, assuming zero transactions costs and ignoring institutions altogether. He maintained that new institutions arise when groups in society see a possibility of profiting that is impossible under prevailing institutional conditions. If external factors make an increase in income possible, but institutional factors prevent it, then new institutional arrangements are likely to develop.

The shortcomings of Clio

Clio has not had an uncheckered history. Its growing popularity has led to a rift between economists who practice cliometrics and historians who practice economic history without the use of the formal models, which they argue miss the context of the problem and have become too enamored of statistical significance at the cost of contextual relevance. Boldizzoni attacked cliometrics, focusing his sharpest criticism on the quantification of history at the perceived expense of its humanity.²⁰ On the other side, cliometrics has lost some of its significance with economists, who see it as another application of economic theory, albeit using historical data. While applied economics is not seen as a bad thing, cliometrics is not seen as anything special. Rather, it is often perceived as the application of theory and the latest quantitative techniques to old data instead of contemporary data. In that world view, a cliometrician is just a theorist with a more limited repertoire – and hence a luxury in an environment of shrinking resources. As a result, cliometrics has been blamed to a degree for the demise of economic history positions in many economics departments.

As early as 1986 William Parker foreshadowed this problem when he observed that what was lost in the move to theory and econometric emphasis was the humane interest of the old British political economy and social welfare and the idealistic German historical economist's concern for the whole society.²¹ At the same time, Alex Field (1987) cited problems from another flank. Whereas the “new” economic historians had to fight to prove their technical skills

²⁰Boldizzoni, 2011.

²¹Parker, 1986.

belonged in the study of history, by the late 1980s there were no more “old” economic historians left to challenge. Instead, the challenge came from the other side, where economic theorists questioned what value cliometricians added to departments strapped for resources. Most economists possess the same or even more sophisticated technical skills, which can be applied to any data set, contemporary or historical.

Conclusion²²

So in the end, what is cliometrics and what is its place in the history and lexicon of economic history? Is it history with an economic (technical) approach? Or is it economics with a long run view of the world? Or has cliometrics become a subset of economic theory? The answer, not surprisingly, is all of the above.²³

A branch of history

For many authors —and many of its protagonists— cliometrics appears to be first of all a branch of history. Using economic tools, techniques and theories, it provides answers to historical, rather than contemporary economic debates.

This inductive view is intimately linked with the German historical school, despite the use of more sophisticated techniques. It could be said that the two disciplines became closer, but probably within the frame of ‘inductive’ economics. On top of that, despite those early interests in building a kind of historically (i.e. inductively) grounded development economics, cliometrics mainly tried to provide answers to *historiographical* questions — and therefore spoke more to the historian than to the standard economist. Econometric techniques may be used, with the reconstitution of time series and identification of missing figures by interpolation or extrapolation — a practice that professional historians seldom condone. But these cliometric procedures do have a historical vocation - that of shedding light on historical questions— considering economic theory or econometrics as auxiliary disciplines of history. And when the cliometric approach was mobilised to build a development theory based upon clearly measured facts, it developed an economics more akin to the objectives of the German Historical School than one participating to the movement towards highly abstract and deductive theory that characterised the development of the neo-classical school of the time.

²²The conclusion is drawn from Diebolt and Haupert, 2016.

²³Diebolt, 2016.

In short, either cliometrics is still a (modernised) branch of (economic) history —in the same way as the modernisation of methods in archaeology (from carbon-14 measurement to the use of statistical techniques such as discriminant analysis) does not turn the discipline into a branch of natural science— or the cliometric approach is mobilised to obtain theoretical results grounded more on induction from collected time series than from a deductive explicit modelling exercise, i.e. economic theory that must be primarily founded on facts and a generalisation of empirical evidence. In this way it contributes to an economic science that is more related to the German Historical School than to the neoclassical perspective.

An auxiliary discipline of economics

But this is not the end of the story. Some recent work in cliometrics performed by economists reveals the possibility of a cliometrics that could also be an auxiliary discipline of *economics* per se. As such, it should be part of the toolkit and competencies of all economists. However, as the term auxiliary discipline indicates, it could only fulfil its proper role for economics if it remains slightly outside the realm of standard neoclassical economics. It must be a compound of the application of the newest econometric techniques and economic theory with the old institutional and factual culture characterising the old economic history.

History is indeed always a discipline of synthesis. It should also be the case for cliometrics. If not, if cliometrics were to be deprived of all its “historical dimensions,” it would simply be economics applied to the past, and would thus cease to exist as a separate branch of study. To be helpful for the economics profession at large, its main contribution should be to mobilise all the relevant information that can be gathered from history to enrich or even challenge economic theories. And this relevant information should also include cultural and institutional development.

A conventional belief among economists is that “qualitative is poor quantitative.” But could “quantitative is poor qualitative” also sometimes be true? A big difference between economists and historians is the sense of so-called historical criticism and the desire to avoid any anachronism. In addition to close examination of the historical sources, this involves the close examination of the institutional, social and cultural context that forms the framework constraining the players’ behavior. Cliometrics will not build a general theory because it shares too strongly in the belief that it is necessary to examine economic phenomena in their context. But it could suggest a few useful ideas and insights, based upon solid investigations and correctly estimated stylised facts, to economists who are attempting to develop laws of economic behaviour.

In summary, it could be contended that a good cliometric practise is not an easy exercise. Becoming too narrowly “economic,” it would not be possible for cliometrics to answer certain questions that would require, for example, more information about the microstructure of financial markets or the actual functioning of stock exchanges during the period under scrutiny — it would only measure phenomenon that it cannot explain. It would require the specific approach (and extraneous information) of the historian to describe the reasons for the lack of relevance (or understand the shortcoming) of such an economic theory in a given context (precise place and period). It is perhaps only in this regard that cliometrics can provide something for economists by suggesting lines of research. However, if it became too “historical,” cliometrics would cease to appeal to the economics profession. Economists need cliometricians aware of their debates and their interests.

A full-fledged field of economic theory?

Last, but not least, cliometrics could one day be more than just an ancillary discipline of economics and instead become a full-fledged field of economic theory. There is indeed another possibility: viewing cliometrics as the science of the emergence of institutional and organisational structures, and that of path dependence. Economic history would use the old techniques of the discipline coupled with the state of the art arsenal of econometrics in order to reveal stylised facts about the efficiency of various institutional arrangements as well as on the causes and consequences of institutional change. It would help the theorist in developing a true theory of institutional change, i.e. one that at the same time would be general (serving the needs of policy makers today, for example) and theoretically solid (grounded on economic principles), while solidly grounded on empirical regularities as put forward by a joint economic and historical analysis. This analysis of *institutional morphogenesis* would be the true theoretical part of a cliometric science that would emancipate itself from its apparently purely empirical fate — being the playing ground of long run econometricians. It is clear that economists’ desire for generality and their fascination for the mathematical science does not encourage them to pay too much attention to contextualisation. However, neo-institutionalist economists like North warn us to seriously consider institutional and cultural contexts.

Economic historians have contributed to the development of economics in many ways, combining theory with quantitative methods, constructing and revising databases, and discovering and creating entirely new ones. This has made it possible to question and reassess earlier findings, thus increasing our knowledge, refining earlier conclusions, and correcting

mistakes. In addition, this field has added greatly to our understanding of economic growth and development, affording the economic historian the valuable element of time as a variable, which the traditional theorist does not enjoy. The use of history to examine economic theory has deepened our knowledge and understanding within fundamental areas of research as to how, why, and when economic change occurs. It is perhaps in this area where the greatest contributions of economic historians have appeared.

By merging economic history with modern techniques, cliometricians have not ended economic history, but elevated it. The continuing evolution of technology has made a tremendous impact on the ability of cliometricians to handle ever larger data sets, share them with a wider audience, and access new data sets that previously took a lifetime to collate. In conjunction with the greater facility current economic historians have with econometrics, the future seems limitless. But as any good historian knows, predicting it is fraught with perils.²⁴

References

- Ashton, T.S., "The relation of economic history to economic theory," *Economica*, n.s. 13:50, 1946: 81-96
- Baten, Jörg, "Die Zukunft der kliometrischen Wirtschaftsgeschichte im deutschsprachigen Raum," in Schulz, G., C. Buchheim, G. Fouquet, R. Gömmel, F.-W. Henning, K. H. Kaufhold, and H. Pohl, eds. *Sozial- und Wirtschaftsgeschichte. Arbeitsgebiete-Probleme-Perspektiven*, Stuttgart: Franz Steiner Verlag, 2004: 639-653
- Baten, Joerg and Muschallik, Julia, "On the status and the future of economic history in the world," *Munich Personal RePEc Archive*, November 2011
- Boldizzoni, Francesco, *The Poverty of Clio: Resurrecting Economic History*, Princeton: Princeton University Press, 2011
- Cochran, Thomas C., "Economic History, Old and New," *The American Historical Review* 74, No.5, (June 1969): 1561-72
- Conrad Alfred., and Meyer John, "Economic Theory, Statistical Inference and Economic History," *Journal of Economic History* 17, 1957: 524-544
- Conrad Alfred., and Meyer John, "The Economics of Slavery in the Ante Bellum South," *Journal of Political Economy* 66, 1958: 95-130
- Davis, Lance E., Hughes, Jonathan R. T., and Reiter, Stanley, "Aspects of quantitative research in economic history, *Journal of Economic History* 20, no. 4, 1960: 539-47
- Davis, Lance E. and Douglass C. North, *Institutional Change and American Economic Growth*, New York: Cambridge University Press, 1971

²⁴For musings on the future of economic history see Baten 2004, Baten and Muschallik 2011, Dumke 1992, Jones *et al* 2012, and Field 1987.

- Diebolt, Claude, "Cliometrica after 10 years: definition and principles of cliometric research", *Cliometrica*, 10, 2016, in press
- Diebolt, Claude and Haupert, Michael, "An Introduction to the Handbook of Cliometrics," in Diebolt, Claude, and Michael Haupert, eds., *Handbook of Cliometrics*, Springer Reference: Heidelberg, 2016: v-xiv
- Dumke, Rolf H., "The future of Cliometric history – a European view," *Scandinavian Economic History Review* 40, no. 3, 1992: 3-28
- Easterlin, Richard A., "Regional Income Trends, 1840-1950," in Seymour E. Harris, ed., *American Economic History*, New York: McGraw Hill, 1961
- Field, Alexander J., "The Future of Economic History," in Field, Alexander J., ed, *The Future of Economic History*, Boston: Kluwer-Nijhoff, 1987
- Fogel Robert, *Railroads and American Economic Growth: Essays in Econometric History*, Baltimore: Johns Hopkins University Press, 1964
- Fogel Robert, and Engerman Stanley, *Time on the Cross: The Economics of American Negro Slavery*, Boston: Little, Brown and Company, 1974
- Galiani, Sebastian, and Itai Sened, eds., *Institutions, Property Rights, and Economic Growth: The Legacy of Douglass North*, New York: Cambridge University Press, 2014
- Gay, Edwin F., "The Tasks of Economic History," *Journal of Economic History* 1, (supplement: The Tasks of Economic History) (Dec 1941): 9-16
- Goldin, Claudia, and Rockoff, Hugh, "Introduction," in Goldin, Claudia, and Hugh Rockoff, eds., *Strategic Factors in Nineteenth Century American Economic History: A Volume to Honor Robert W. Fogel*, Chicago: The University of Chicago Press, 1992: 1-8
- Haupert, Michael, "History of Cliometrics," in Diebolt, Claude, and Michael Haupert, eds., *Handbook of Cliometrics*, Springer Reference: Heidelberg, 2016d: 3-32
- Jones, Geoffrey, van Leeuwen, Marco H. D., and Broadberry, Stephen, "The future of economic, business, and social history," *Scandinavian Economic History Review* 60, no. 3, (November 2012): 225-253
- Machlup, Fritz, *The Political Economy of Monopoly: Business, Labor and Government Policies*, Baltimore: Johns Hopkins University Press, 1952
- McCloskey, Deirdre [Donald], "The achievements of the Cliometric School," *Journal of Economic History* 38, no. 1, 1978: 13-28
- McCloskey, Deirdre [Donald], *The Rhetoric of Economics*, Madison: University of Wisconsin Press, 1985
- McCloskey, Deirdre N., "Robert William Fogel: An Appreciation by an Adopted Student," in Goldin, Claudia, and Hugh Rockoff eds., *Strategic Factors in Nineteenth Century American Economic History. A Volume to Honor Robert W. Fogel*. Chicago: University of Chicago Press, 1992: 14-25.
- McCloskey, Deirdre N., *The Bourgeois Virtues: Ethics for an Age of Commerce*, Chicago: University of Chicago Press, 2006
- Menger, Carl, *Die Irrtümer des Historismus in der deutschen Nationalökonomie*, Vienna: Alfred Hölder, 1884

- North, Douglass C., *The Economic Growth of the United States 1790-1860*, Englewood Cliffs, NJ: Prentice-Hall, 1961
- North, Douglass C., *Growth and Welfare in the American Past: a New Economic History*, Englewood Cliffs, NJ: Prentice-Hall, 1966
- Parker, William N., "The historiography of American economic history," in Porter, Glenn, ed., *Encyclopedia of American Economic History: studies of the principal movements and ideas*, vol 1, New York: Charles Scribner's Sons, 1980: 3-16
- Parker, William N., ed, *Economic history and the modern economist*, Oxford: Basil Blackwell, 1986
- Sutch, Richard, "The Profitability of Ante-Bellum Slavery: Revisited," *Southern Economic Journal* 31, no. 4, (April 1965): 365-77
- Temin, Peter, "Economic History and Economic Development: New Economic History in Retrospect and Prospect," in Diebolt, Claude, and Michael Haupert, eds., *Handbook of Cliometrics*, Springer Reference: Heidelberg, 2016: 33-52
- United States Census Bureau, *Historical Statistics of the United States, Colonial Times to 1957*, Washington, D. C.: U.S. Department of Commerce, Bureau of the Census, 1960
- Wright Gavin: "Econometric Studies of History", in: Intriligator, Michael, ed., *Frontiers of Quantitative Economics*, Amsterdam: North-Holland, 1971: 13-59
- Yasuba, Yasukici, "The Profitability and Viability of Plantation Slavery in the United States," *Economic Studies Quarterly*, (September 1961)