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Economic History and Cliometrics: the Stand of the last Samurai

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Abstract: The job of an army is to wage war. The ancient samurai warrior and a modern soldier do the same job using different approaches. The job of an economic historian is to tell stories about the past. The old guard of the economic history discipline and the new wave of practitioners, referred to as “*cliometricians*,” do the same job in different ways and have at times clashed with one another over these differences. In the same way, the Satsuma Rebellion was a clash between the samurai and the modern army. This is the story of the evolution of economic history, the revolution that sparked a divide, and how the strengths of each party make the discipline stronger. It is told against the backdrop of the Satsuma rebellion, popularized in the film *The Last Samurai*.

Keywords: Economic history, cliometrics, history, theory.

JEL Codes: A1, A2, A32, N01.

*“I don’t know what effect these men will have upon the enemy, but, by God, they frighten me”*¹

Introduction

The Last Samurai, released in 2003, is a period action drama based on the Satsuma Rebellion, pitting samurai warriors against the modern military of the late 19th century imperial government of Japan. At its heart, the film is about the eternal struggle of old versus new. The story of the evolution of economic history and how its new movement – cliometrics, caused a rift with the old ways, can be told with *The Last Samurai* as a backdrop.

Both the samurai and the modern warrior have the same job. They do have different approaches, which led to conflict. War is fought in different ways. The old way of the samurai and the modern military organization using modern weapons were diametrically opposed. The former was characterized by martial virtues, loyalty, and skilled hand to hand combat. The latter rely on modern technology and conscripted forces. But both must strategically employ the weapons at their disposal in order to emerge victorious.

The job of an economic historian is to tell stories about the past. The point of the story is less to entertain (though it is not a bad thing if it does) than to understand and explain. Typically, the focus of the explanation is to understand why economies grow. This is the underlying question of most economic history research. All economic historians share the same role, but they do not all carry out their task in the same way.

¹ Duke of Wellington letter, 29 August 1810

The old guard of the economic history discipline and the new wave of practitioners (originally known as “*new economic historians*,” now referred to as “*cliometricians*”) do the same job in different ways and have at times clashed with one another over these differences. Like the samurai and the modern army, they have more in common than initially meets the eye. Similar to the two armies in *The Last Samurai*, both groups of economic historians are passionate about their approach when they clash over their differences. Traditional economic historians rely more on a narrative approach, while cliometricians tend to be more quantitative. But in the end, both share common roots and strive for the same goals.

In *The Last Samurai*, Tom Cruise plays Captain Nathan Algren, an American Civil War veteran charged with the task of training Japanese conscripts to become the first standing Imperial Army in Japan. In order to do so, it will first be necessary to put down a rebellion of traditional samurai warriors who remain devoted to the sacred dynasty and old methods of warfare, even going so far as to reject modern weaponry. The movie centers around the eventual conversion of Algren from training the modern army to sympathizing with the samurai, eventually joining their ranks. In the end, Algren, despite losing the battle, wins the war, by demonstrating the value of samurai principles to the emperor. Both the samurai and the modern army have something to teach each other, and blending their strengths is better than eliminating one in favor of the other. In the same way, traditional economic historians and modern day cliometricians strengthen the field of economic history by concentrating on their similarities instead of highlighting their differences. 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. Well before the dawning of cliometrics, Edwin Gay, in his 1941 inaugural presidential address to the Economic History Association, preached that economic historians needed to wed the skills of economists with those of historians in order to accomplish their task. He believed such a union was essential, but difficult to accomplish. 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. But Joseph Schumpeter warns us not to forget history amidst the attention paid to the technical and mathematically attractive precision of models. He argued that “*scientific*” economists must command the techniques of statistics, theory, and history. And, he declared, history is “*by far the most important*”.

What is economic history?

Economic history, as the name denotes, is a blend of both history and economics. Both economists and historians aim to tell plausible stories about the past. Their success depends on their ability to connect events using narrative standards. Those who do so through an economic lens are economic historians.

In the late 1950s a new movement, referred to as “*cliometrics*,” began among economic historians. At the time, it was referred to as the “*new economic history*.” The term cliometrics, combining “*Clio*,” the muse of history, with “*metrics*,” or measurement, was later coined to describe the revolution that would transform the study of economic history from a narrative to a mathematical format.

Historians seek to understand how the world works – how we got to be where we are today. Economists try to solve the puzzle of how scarce resources are allocated among infinite wants, and how that allocation matters in our ability to satisfy tomorrow’s wants. The common ground

in these two disciplines is trying to understand why some countries today are rich, while others are poor.

Historians, like the samurai, are an ancient tribe. The history discipline can be traced back 2500 years to the scholar Herodotus. Historians attempt to explain the past through the study of documents. The American Historical Association describes history as “*the study of the human past as it is constructed and interpreted with human artifacts, written evidence, and oral traditions.*”² By contrast, economists today are the modern army. Economics as an academic discipline evolved from political economy in the 19th century. But the earliest economic historians plied their trade using the tools of the historian, more so than those of the economist.³ It really wasn’t until the dawning of the cliometric movement in the 1950s that the conflict arose. In this context, it is more fitting to see the cliometricians as the modern army, equipped with modern weapons of economic theory and econometrics, and the traditional economic historians as the samurai.

E. B. Lyon argued that economics “*ought to be a theory of development and not merely an explanation of the method or manner by which humanity produces wealth and shares its income under a given set of social conditions.*”⁴ Rondo Cameron believed that because the fundamental role of the economic historian is to describe, analyze and explain change, “*any theory of structural change must . . . be tested against historical or long-term data.*”⁵ Both men, though speaking nearly half a century apart, focused on theory as a critical component of the study of economic history, yet until the cliometric movement, while theories might be expressed, economic history seldom gathered the data necessary to test those theories.

The evolution of the economic history discipline

Economic history emerged as a distinct discipline in the late 19th century during the course of the revolt against the deductive theories of classical economics. Its most vocal proponents were Gustav Schmoller in Germany and Sir John Clapham in England. The original aim of the historical school was to replace what they believed to be the unrealistic theories of deductive economics (the gathering of facts leading to a certain conclusion) with theories developed inductively (the development of theories providing evidence of the truth) through the study of history. They argued that history was the true source of knowledge about humans and their organizations. They protested that general theories were useless, because history was culture and time specific and could not be generalized. They believed that economics was best approached through empirical and historical analysis, not abstract theory and deduction. These early economic historians staunchly preached the tenets of historians, and in fact rebelled against the deductive approach used by the classical economists. In the late 19th century, while there were

² American Historical Association website, <https://www.historians.org/teaching-and-learning/why-study-history/careers-for-history-majors/history-discipline-core>, accessed January 2023.

³ Gustav von Schmoller, founder and long-time chair of the Verein für Socialpolitik (German Economic Association) and probably the most influential person in the evolution of economics as an academic discipline during his lifetime, Sir John Clapham, holder of the first chair in economic history at Cambridge, Sir William Ashley, the first chair in economic history in the United States, and Edwin Gay, the first president of the Economic History Association, were all trained historians.

⁴ Lyon 1926, p 241

⁵ Cameron 1965, p 114

historians and economic historians, both were grounded in the “*samurai*” approach. They used and advocated the traditional approach to history. But the seeds of discord had already been planted. Classical economics and its deductive approach did not go away, and by the middle of the 20th century, economic historians began to turn toward their approach. The samurai persevered in Japan, but the world evolved, and eventually, the Japanese government moved toward the modern army, equipped with its effective modern weapons, setting up the clash with samurai.

Economic history is not just about the past. It is uniquely suited to addressing current events topics as well. Witness the quick appearance of studies of previous pandemics in response to the Covid-19 crisis. Similarly, the market crash in 2008 begat a slurry of articles focusing on previous financial panics in an effort to learn from our past. The study of economic history is not just about understanding what happened before, but helping us to understand what is happening now.⁶

But those modern weapons had to be used correctly. The movie begins at this point, with Captain Nathan Algren recruited to come and train the new Japanese army. Handing modern weapons to raw recruits does not an army make (nor does using econometric techniques on old data result in economic history research). Algren’s job was to train the new recruits in modern war techniques and how to employ the modern weapons to best effect. Likewise, the modern weapons of economic theory and econometrics need to be correctly deployed in order to analyze issues in historical context and yield useful results.

At the dawn of the 20th century it appeared that the attempt of the historical school to replace deductive theory with inductive reasoning had failed. In fact, the economics discipline was moving toward a more deductive approach. The movement to turn economics into a science, which grew out of the rising stature of the natural sciences, led to more formalized, mathematical models. The growing fascination of the larger economics discipline with the scientific method and its theoretical approach was soundly rejected by economic historians, which made them outliers.

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 to aid the war effort. After the war they helped found the *National Bureau of Economic Research* (NBER), which was created in large part to stimulate the collection and interpretation of historical statistics.

In a way, Gay represents the young emperor in the movie. He was taught the old ways, and certainly understood them, but was exposed to the seemingly limitless possibilities of the modern world, and he recognized those advantages. The emperor is exposed to western influences, Gay discovers the power of statistics and their careful study. Just like the emperor’s initial goal was not to destroy Japanese culture, but rather to enhance it with western ideas, Gay’s initial foray was very much the approach that Schmoller espoused – the empirical study of history. But this path would ultimately lead to a far different kind of approach. In the same way, the emperor’s initial intentions were derailed by the resistance of the samurai.

⁶ Diebolt and Hauptert 2022

Mitchell served as the first director of research at the NBER and held the post for nearly a quarter of a century. The NBER gathered tremendous amounts of empirical economic data that economic historians used in their efforts to induce theories about economic growth. The NBER ultimately served as a catalyst for the change in emphasis from narrative to quantitative studies in economic history.

By 1941 Gay felt that the work of economic historians had modified, but not displaced the theoretical approach. By then the use of the deductive method had become more guarded and its practitioners had increased the range and depth of their contemporary observations, resulting in a viewpoint that was less individualistic and more social. This transition led Gay to call for a reunification of economic history and theory. He believed that economic historians, who knew a great deal about the long trends of productive energies and social pressures on economic growth, could accomplish a great deal by combining this with the tools of the theorist to lend greater insight into the growth process. Far from incompatible, he felt that true philosophical objectives and the careful assembling and analysis of data were complementary.

Over time economic history presented itself as empirical and multidisciplinary. Empirical in that it dealt with the facts of the past. The facts could be quantitative, as the NBER emphasized, or qualitative, as Schmoller emphasized. It was also empirical in that economic historians used history as a laboratory where they could test economic theory.

The New Economic History Movement

Quite simply, cliometrics is the application of economic theory and quantitative techniques to study history. It owes its very existence to traditional economic history, having grown out of that discipline. The skills of a cliometrician include those of any other economic historian, but are enhanced with greater attention to theory and modern econometric techniques.

In his presidential address to the Economic History Association, Edwin Gay (1941) noted that economic historians required both the skills of the historian and the economist to accomplish their task. He believed the molding of these skills was essential, but not easy to accomplish. That has not changed. What has changed is the degree to which those economic skills have become more formalized and technically demanding. The practitioners of those more formalized skills as they are applied to economic history are known as cliometricians.

Gay's attitude toward quantitative economics and the more traditional narrative approach of the historian is similar to the emperor's realization at the end of the movie that the samurai's bushido codes of martial virtues, indifference to pain, and intense loyalty are valuable tools for the modern military he is trying to build. He will keep the modern army with its advanced technology, but not at the expense of wiping out every last vestige of the samurai traditions. He recognizes that the strengths of the samurai and the modern army complement one another.

Gay recognized this earlier in our story than the emperor does in the movie, but the revelation is the same: strength in union. Both history and econometrics make economic history stronger, just as modern weaponry and samurai discipline make for a stronger army. Unlike the Hollywood ending, where we are left to believe that the emperor saw the light, the conflict between historians and cliometricians has not been resolved quite so neatly.

The samurai were abolished after their uprising, but the spirit of the samurai lived on in the Japanese military – this is the revelation at the end of the movie, when the emperor accepts Katsumoto's sword from Algren and dismisses his military advisor, Omura. While the samurai

no longer exist, their virtues of indifference to pain and undying loyalty were adopted by the modern army. These traits were famously displayed by the Japanese military during World War II.

After WWII, with the American economy booming, economists gained cachet. Economics, with its rigorous models, tested from an abundance of numerical data by use of advanced, mathematically expressed formulae, came to be regarded as the queen of the social sciences.

The timing of the cliometric movement corresponded to the success of the quantitative growth studies of Simon Kuznets, who could be considered the father of cliometrics. Arguing against those who cliometricians labeled “old” economic historians, Kuznets (1966) claimed that little would be gained from a study of the past unless it was systematic and quantitative, because that was the only way to gauge the relative effects of factors and events. His student, Robert Fogel agreed, crediting his mentor as the primary inspiration for the work of the new economic history.⁷

Kuznets may have inspired the cliometric movement, but it was Fogel who popularized it, highlighting the power of its approach. He used the latest techniques of modern economics and gathered reams of historical data to reinterpret American economic growth in sectors ranging from railroads and slavery to the long run effects of nutrition. Rather than conjecture about the causes of growth, as the “old” economic historians were wont to do, he carefully measured them. He pioneered the use of large data sets covering long periods of time harvested from original sources. Fogel was the embodiment of the difference between the “old” economic history and the “new.” He applied cutting edge econometrics to newly created data series.

In our story, we can equate the Kuznets-Fogel approach to Omura, the Japanese military advisor to the emperor. Omura advocated a modern army and modern weaponry. He saw the samurai as an enemy that had to be vanquished. Fortunately for historians and economists, the wars played out in academia are neither as action-packed nor lethal as those in the movie. War is waged in academia with words, not guns. And instead of death and destruction, scholarly reputations and research funds are the stakes.

The army and the samurai battled to the death. In the conflict, Captain Algren, knowing his troops were not ready for the fight, none the less battles gamely until the end. His loyalty to his cause is respected by samurai leader Katsumoto, who spares his life. He is saved and grows to understand and appreciate the samurai culture.

The cliometric revolution pitted this new generation of historical economic “*theorists*” against “*traditional*” economic historians who were less likely to rely on quantitative methods, either because they clung to the Schmoller dogma that theory could not be applied to history, or because they lacked the skill set necessary to exploit the new econometric tools. They accused the newcomers of bringing economic theory to history without a proper understanding of the facts.

Traditional economic historians complained about Fogel’s early research. Not only did his work overturn many previously held beliefs about economic growth, but it did so using tools and methodology that were foreign to many of his critics. He was accused him of producing fictitious quasi-history. Others complained that he created “*a new branch of literature, quite unlike what*

⁷ Fogel 1965

has hitherto passed as historical knowledge and somewhat more analogous to science fiction.” EAJ Johnson, one of the founding members of the Economic History Association, went a step further, questioning whether standard neoclassical general equilibrium theory had any place in historical research.⁸

It was inevitable that the modern weaponry would eventually prevail against the samurai, and indeed, in the climactic battle, it does. In the same way, modern techniques are the most powerful way to analyze the past, but just as the modern Japanese army could not succeed without the type of discipline perfected by the samurai, cliometricians cannot conquer historical problems without understanding history. Weapons (be they guns or theories) are ineffective when used improperly (without training and discipline or historical context).

The Battle Lines

At its most fundamental level, the fight between the two camps was about the choice of models. Traditional, or “*old*” economic historians claimed that realistic models had to be too highly generalized or too complex to allow the assumption of mathematical relationships. The “*new*” economic historians, however, were primarily interested in applying operative models to economic data. There was a difference in method between new and old economic historians that could not be ignored. In the same way, the samurai focused on the traditional methods of warfare, as guided by their moral code. It was not the sword that defined the samurai, but the dedication to their virtues.

Cliometricians threw their lot in with the econometricians. They turned to the collection and accumulation of historical data and used the tools of statistical analysis and econometrics to test hypotheses about economic activity. In this way, cliometrics brought economic history into the mainstream of economics as it was developing. But in doing so, they left behind a generation of economic historians who would not, or could not, accept this approach to the discipline.

Some historians argued that the new fascination with quantification came at the expense of the contributions of political, social, and legal historians. They did not believe that theory could be applied to history in this way, and many did not have the skills to do it even if they believed in it. This led to a rift within the economic history discipline, which ultimately drove these “*old*” economic historians into retirement, or into history departments.

They resurrected the 19th century argument that the attempt to explain history with theory was doomed to fail. Noted historian Louis Hacker went so far as to warn that the cliometric movement “*has all the dangers of a fall into a deep and possibly bottomless pit.*”⁹ The use of technique without respecting the sanctity of the historical setting was seen as irresponsible at best and blasphemous at worst. The movement was the equivalent of the imperial army marching out to obliterate the samurai, wiping out the memory of its existence, and everything that it stood for, to be replaced by the modern army.

There is no individual equivalent to Captain Algren in this story. Rather, Algren is represented by the first disciples of cliometricians, several of whom were quite critical of the path down which cliometrics was propelling the discipline of economic history, warning that it

⁸ Redlich 1965, Erickson 1966, p 107, Johnson 1941

⁹ Hacker 1966, p 175

was straying too far from its historical roots. Peter Temin noted that cliometricians “*turned their back on traditional historians and sought their place among economists.*”¹⁰ Douglass North complained that too much of the work produced by cliometricians had become “*dull and unimaginative.*” He accused them of substituting “*econometric techniques, the computer, and running a few regressions . . . for theory and imagination.*”¹¹ The tenor of these complaints suggests that cliometricians were in danger of forgetting from whence they came. Despite the new tools at their disposal, they were economic *historians*. Just as the modern Japanese army were still warriors, like their samurai forbears. As Captain Algren discovered, one’s past is always a part of their present, and one ignores that at one’s own peril. There is value in retaining some traditional practices. For the modern Japanese army, it was the moral codes followed by the samurai. For cliometricians, it is that “*economics does not merely have a lot to learn from history: history is what it is.*”¹²

In this regard, the old guard was vindicated. The powerful tools of economic theory and advanced econometric techniques alone do not make for good economic history. Understanding the historical context of the problem under investigation is necessary for success. Using the *Last Samurai* metaphor, advanced weaponry does not alone make a good army. The samurai dedication to their bushido codes proved valuable to the modern army in the same way that attention to historical detail is crucial to the economic historian. Modern wars, whether on the battlefield or the academy, cannot be waged without modern weapons, But at the same time, the battle is unlikely to be won without the dedication to craft and loyalty to purpose espoused in the old ways.

The old ways should not be abandoned wholesale. At the same time, they cannot remain unchanged. Instead, both the Samurai and the traditional economic historians ultimately need to realize that modernity is not all bad. Adopting the best of the modern method and combining it with the best of the old one will result in a far superior product. In this case, the whole is greater than the sum of its parts. The emperor becomes aware of this in the final scene of the movie when he accepts the sword and dismisses Omura. The way of the samurai as a military is past, but the samurai bushido should live on. The emperor sees its value as a moral code for the modern military. Indeed, bushido exists today, not within a samurai class setting, but as a moral code in Japanese culture.

Conclusion

Economic history, as its name suggests, is a blend of both disciplines. Economics has evolved more on the margin of formal theory, statistics, and econometric techniques. But history is still a necessary part of economic history. Historical context is indispensable for good economic history.

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 address issues with new and creative approaches and reassess earlier findings, expanding the frontiers of our knowledge,

¹⁰ Temin 2014, p 16

¹¹ North 1965, p 90

¹² McCloskey 1986, p 69

refining earlier conclusions, and correcting mistakes. Economic historians have been instrumental in adding to our understanding of economic growth and development. Using time as a variable is a crucial advantage that economic historians have over traditional theorists.

This reliance on *history* is the critical difference between a cliometrician and a theoretician. As Deirdre McCloskey famously observed, “*cliometricians have been explaining to their colleagues in history the wonderful usefulness of economics . . . [but they ought to be] explaining to their colleagues in economics the wonderful usefulness of history.*”¹³

History is the critical element that closely ties the old and the new economic historians. Theory does not replace history, it augments it. The “*old*” and the “*new*” economic historians both rely on history as their medium for the study of economic theory. The former uses an approach that is more qualitative, while the latter tends to be more quantitative. But both test economic theories in a historical context. And importantly, both rely heavily on understanding the historical context in which they test their theories.

Economic history has a long and proud history, but as we have seen, it has not been without its challenges. Like the samurai and their struggle with modern technology, the old established ways struggle with modernity. Modern methods and approaches have not replaced the old approach, rather, they have improved upon it. Just as the modern army is better for its retention of some of its samurai principles, traditional economic historians and cliometricians need to recognize that they are complements, not substitutes for one another. Cliometrics brings to economic history new tools that have improved the ability of economic history to perform its best function: explaining the past.

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¹³ McCloskey 1976, p 455

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