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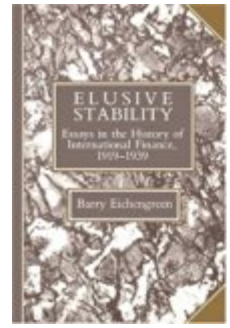
Lawrence H. Officer. *Between the Dollar-Sterling Gold Points: Exchange Rates, Parity and Market Behavior.* Cambridge: Cambridge University Press, 1996. xxi + 342 pp. $59.95, cloth, ISBN 978-0-521-36538-3.



Reviewed by Alan M. Taylor

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Lawrence Officer has been making influential contributions to international and monetary economics and history for many years. He is perhaps best known to economic historians for his work on exchange market arbitrage under gold (or read, metallic) standards. In a series of tightly-argued journal articles he challenged the widely accepted revisionist scholarship that had sought to depict the gold standard as inefficient and unstable, building his case on a monumental collection of primary data, careful statistical inference, and elegant theory. The present book extends and buttresses these arguments, sustaining a well-documented analysis of this monetary regime for over three hundred pages. The work focuses on the U.K.-U.S. foreign exchange market and leaves us with probably the most comprehensive and informative single treatise on this centuries-old institution. The work will be invaluable to macroeconomic historians interested in Britain and the U.S. in the late nineteenth and early twentieth centuries, and it should provide a good model for others wishing to understand similar monetary regimes at other times and places.

The introduction itself lays out the plan of the book. Officer makes his key point here that the subject is not just about whether gold points were violated, but that a complete analysis must examine the position of the exchange rate as an object of study, at all points inside and outside the gold-point boundaries. To this end, the author makes the case for getting the best possible data, at the highest frequency, for the longest time span. Finally, the key questions of market integration and efficiency (of the market and of the regime) are to be considered.

Part One of the book lays down the key historical and institutional features of the landscape from the beginning of the dollar-sterling gold standard in 1791 (when the U.S. went to a formal metallic standard) to its demise in 1931 (when Britain suspended convertibility). The laws and mechanics of coinage, minting, convertibility of paper to metal, dealings in the market and at banks, and so forth are all carefully described. The text and tables note significant legislative acts forcing regime changes for both countries in this entire time span, including changes in the metal of the standard for the U.S., and changes in parities for both countries (i.e., the metal content of the unit of account). Periods of convertibility and inconvertibility are shown.

Part Two comprises an exhaustively constructed data set to permit the study of this institution. First, the relatively simple job of computing implied parities is achieved using the information on metallic content in Part One, plus data on market prices of gold and silver (in U.S. bimetallic episodes). We find that from 1837, until 1931, after its initial wavering, the dollar-pound parity rate settled at the famous 4.8665635 point for well nigh a century. The market exchange rate was not so stable, and a long chapter discusses the sources and their quality, usefulness, and representativeness. Officer is eventually able to present data on the dollar-pound exchange rate for the entire period at quarterly frequency. In addition, monthly series are constructed for some periods: 1890-1906; 1925-1931; and, for a Bretton-Woods era comparison, 1950-66. Pre-1879 great care is taken (following Perkins, not Davis and Hughes) to adjust the bills of exchange to a uniform zero ("sight") maturity. This ensures temporal consistency with the later cable rates; it also reflects the ultimate dominance of the sight bill as an instrument in the 1879-1914 heyday of the gold standard. An implicit sight rate is derived from the price of non-demand bills and the British interest rate. Care is also taken to find a mid-point of the buy-sell rates, using information on brokers' commissions; and further care to correct the exchange rate for devaluations of paper during paper standard periods. This level of care exceeds previous studies, and survives testing for the consistency and homogeneity of the series. This is probably the best quality data for the dollar-sterling exchange rate we now have for the entire period; it will be an essential series for future scholars. Some interesting patterns appear just from a quick look at this series (Figure 7.1, p. 102): the volatility of the exchange rate declined dramatically in the early nineteenth century; the standard deviation in 1791-1820 was about four-six percent, but had fallen to less than .5% after 1871, and less than .2% in 1901-14.

Part Three makes the next logical step: comparing the above exchange rate series with the level of known arbitrage costs; i.e., the question is whether the exchange rate remained within the gold points. This is a point of departure for another exhaustive data-building effort. To construct gold points requires information on costs of freight, insurance, brassage, knowledge of any gold devices used by the monetary authorities, and interest costs due to the time delay of shipment across the Atlantic Ocean. All of these are put together with the same thoroughness as the exchange rate data. The care taken places these estimates on a far firmer footing than earlier estimates which had typically cut corners (cf. Clark, who had assumed ad hoc constant transaction costs). And the method is clearly far superior to any of the simpler techniques offered in other sources: taking a consensus estimate of brokers; using the terribly flawed gold flow data in a revealed preference method; using a pure max-and-min spread (violations impossible!); or using piecemeal aggregate arbitrage cost data from temporally disjoint sources. Essentially Officer proceeds with a laborious first-principles approach: each and every arbitrage cost component is individually estimated, then summed up, at each point in time. This consumes sixty-two pages; it is hard to imagine any improvement on these series for gold import and export points in this market, and this is the model for similar work on any other market.

The data are valuable and inform two integration tests in Part IV. The decline of gold point spreads mirrors that of the decline of exchange rate volatility, as expected. After 1880, this spread was at an all-time low level (even looking forward to 1925-1931 and Bretton Woods) of just above one percent for gold arbitrage. (Compare with around five percent in 1780, falling to about two percent in the 1840s). Officer sees this as improved "external" integration (external to the gold points) over time. Officer then studies whether even within the band, the exchange rate can reveal improved "internal" integration over time. Econometrically this section is less fully developed. For example, the relevant time series properties of the exchange rate series are not fully spelled out, making for some problems of inference. It is not clear whether we expect, say, a random walk between the gold points. (And what about beyond?) In a complicated nonlinear model such as this, the unconditional (raw) distribution of the exchange rate can have peculiar shapes. Officer, however, considers that a uniform distribution is "natural" (p. 189) in this zone. For the criterion of "internal integration" as Officer terms it, the focus is on whether "on average" the deviation of the exchange rate from parity is less than half the gold point spread, looking at absolute deviations. Again, by this measure, integration rapidly increases prior to the 1870s, then holds steady. A big jump is seen in the 1820s. Econometrics aside, this chapter places greater emphasis on explaining long-run tightening in the exchange rate distribution, and, especially within the band. As an explanation, Officer considers the role of the Second Bank of the United States critical in reducing dispersion in the 1820s. This trend was assisted by private agents such as the House of Brown, and, later in the nineteenth century, the New York private banks.

Part Five conducts various tests for violations of market efficiency. The first test looks at gold-point violations: they are few-- only four months during 1890-1906, and none in 1925-1931, for example. Far fewer than in previous studies, we should note. Thus Officer's findings are very favorable to an efficient gold standard. Earlier work is faulted for using the wrong data (e.g., cable rates) or poor measures of arbitrage costs (bad gold point estimates). Correspondingly, Officer tests for failures of uncovered interest arbitrage (following Morgenstern), covered interest arbitrage and forward speculation for the 1925-31 period. Here there are substantial failings, with unexploited profit opportunities. These are seen as following from episodic losses of confidence in the regime. It would be interesting to see similar work on the classical gold standard regime pre-1914. However, in Part VI some comparisons are drawn and, under auxiliary assumptions about the exchange rate distribution (once more) it is shown that the interwar standard was not markedly worse than its prewar cousin. Part Seven concludes.

Overall, this book offers an exhaustingly comprehensive analysis of the dollar-sterling market from the 1790s to the early post-WWII period. The data work cannot be faulted, and pushes our knowledge to a much higher plane than ever before. The empirical analysis confirms our priors concerning the convergence of this market on a high level of integration by 1880. The work leaves open some interesting doors for more sophisticated econometric analysis that could engage future scholars, but in many other respects this is the final word.

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