
Long Cycles: Prosperity and War in the Modern Age

LONG CYCLES

Prosperity and War in the Modern Age

JOSHUA S. GOLDSTEIN

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For my teachers

Generally, operations of war require . . . 100,000 mailed troops. . . . [E]xpenditures . . . will amount to one thousand pieces of gold a day. After this money is in hand, 100,000 troops may be raised. . . .

Where the army is, prices are high; when prices rise the wealth of the people is exhausted. When wealth is exhausted the peasantry will be afflicted with urgent exactions. With strength thus depleted and wealth consumed the households in the central plains will be utterly impoverished and seven-tenths of their wealth dissipated.

—Sun Tzu, *The Art of War* (ca. 400 B.C.)

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PREFACE

As this book goes to press, the connection between economics and war is a “hot topic.” Both the American and Soviet economies, struggling under the burden of large military expenditures, are facing major obstacles to sustained prosperity. In the United States, these take the form of massive debts and government and trade deficits. The Reagan administration military buildup has slowed substantially for reasons of cost, but the price tag for 1980–85 will be with us for some years to come. In the Soviet Union, economic growth has been extremely sluggish in recent years, partly as a result of central planners’ allocation of investment to the military rather than consumption and other sectors.

This, however, is not a book about current events. It explains neither how to solve the debt problem, nor when the next war will break out, nor even how to get rich playing long cycles on the stock market. It does, I hope, offer new perspectives and insights for thinking about current issues in light of longer-term historical processes.

The roots of this book go back to two experiences I had in 1970. First, my high-school social studies class heard a lecture by Professor Robert North of Stanford’s political science department, who described how researchers were using quantitative analyses and computers to better understand conflict, escalation, and war. I found the idea irresistible and went on to work with Professor North during a good part of the next decade. Second, as a freshman at Stanford I took a seminar from Pierre Noyes, a theoretical physicist, on “the terrestrial revolution.” This seminar dealt with long-term social evolution on planet Earth and introduced me to Marxist traditions, among other things.

Later in the 1970s I had the good fortune to work with the late Professor William Linvill, head of the Stanford Department of Engineering-Economic Systems. Professor Linvill showed me how to look at economics from a broad social perspective and how to bring numbers to life and play with them. As I complete this book, I look back gratefully to the contributions of these three teachers in particular.

The book itself is a revised version of my Ph.D. thesis, completed at the MIT Department of Political Science under the supervision of Hayward R. Alker, Jr. Without Professor Alker’s intellectual and practical support over the past four years, the book could never have taken form.

Past research on long cycles has the reputation of being at best a well-meaning

effort in a field where scientifically valid results are impossible and at worst an exercise in astrology and mysticism. Why has there been such a hostile reception to long cycles among the established academic disciplines, especially economics? I think the answer has to do with a paradigm shift required to take long cycles seriously. Long cycles require thinking on a new time scale, looking at history differently, thinking about the connections of economics and politics in new ways.

I first became interested in long cycles because of the fascinating theoretical questions raised in the past debates on this topic—debates reviewed in Part One of the book. Different schools of research have created different theories of long cycles; notably, Marxists and non-Marxists have seen reality through different lenses. As I dug into the long cycle debates, I realized that many of the central theoretical questions could not be answered without new empirical research. My empirical analyses are reported in Part Two of the book. I have included my data base as a resource for others interested in historical issues of political economy. In so doing, I hope to encourage others to give greater attention to long-term historical processes. I have also provided a bibliography of about 670 works referred to in the book. The bibliography is a resource for further work in the field, particularly to help those interested in long cycles to become familiar with works in a variety of traditions.

My research on long cycles has benefited from the advice and suggestions of many people. Randall Forsberg shared her thoughts extensively on the relevance of the project to security issues. W. Dean Burnham, Manus Midlarsky, and Bruce Russett offered many constructive ideas after reading earlier drafts. Others who contributed helpful ideas include Richard Ashley, Francis Beer, Suzanne Berger, Albert Bergesen, Lincoln Bloomfield, Peter Brecke, Christopher Chase-Dunn, Nazli Choucri, Lee Farris, Jay Forrester, John Freeman, Avram Goldstein, Dora Goldstein, Harold Guetzkow, Nancy Hodes, Robert Keohane, Charles Kindleberger, Joseph Klesner, Edward Kolodziej, Peter LeMieux, Jack Levy, Cathie Martin, George Modelski, Steve Moss, Robert North, Pierre Noyes, Kate Rooney, Andra Rose, Steve Rosenstone, Peter Senge, Drorah Setel, David Singer, William Stanley, Sally Zierler, Dina Zinnes, and the editors of the *International Studies Quarterly*. I also benefited from comments by faculty and students at several universities where I presented parts of this work—MIT, Indiana University at Bloomington, University of Illinois at Champaign-Urbana, Boston University, Syracuse University, University of California at Los Angeles, University of Southern California, and Yale University.

Travel funds provided by the National Science Foundation, the MIT Department of Political Science, and Hayward Alker, Jr., allowed me to present papers about my work at three conferences. Computer funds were provided by the MIT Department of Political Science. The book is based on work supported under a National Science Foundation Graduate Fellowship. Any opinions, findings, conclusions or recommendations expressed herein are mine and do not necessarily reflect the views of the National Science Foundation.

In summarizing theoretical debates I review, condense, and organize many schol-

arly works as I search for the “big picture.” Although I have tried to make the “small pictures” accurate as well, in such a process I have probably misunderstood or miscommunicated particular points in certain works or categorized others’ work in ways they might not have done themselves. To any such misrepresented colleagues I apologize in advance.