

This PDF is a selection from a published volume from the National Bureau of Economic Research

Volume Title: Strained Relations: U.S. Foreign-Exchange Operations and Monetary Policy in the Twentieth Century

Volume Author/Editor: Michael D. Bordo, Owen F. Humpage, and Anna J. Schwartz

Volume Publisher: University of Chicago Press

Volume ISBN: 0-226-05148-X, 978-0-226-05148-2 (cloth);  
978-0-226-05151-2 (eISBN)

Volume URL: <http://www.nber.org/books/bord12-1>

Conference Date: n/a

Publication Date: February 2015

Chapter Title: Front matter, Strained Relations: U.S. Foreign-Exchange Operations and Monetary Policy in the Twentieth Century

Chapter Author(s): Michael D. Bordo, Owen F. Humpage, Anna J. Schwartz

Chapter URL: <http://www.nber.org/chapters/c12908>

Chapter pages in book: (p. i – x)

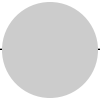
---

# Strained Relations



---

**A National Bureau  
of Economic Research  
Monograph**



---

**Strained Relations**  
US Foreign-Exchange  
Operations and Monetary  
Policy in the Twentieth  
Century

---

**Michael D. Bordo, Owen F. Humpage,  
and Anna J. Schwartz**

**The University of Chicago Press**

Chicago and London

---

MICHAEL D. BORDO is a Board of Governors Professor of Economics at Rutgers University, the State University of New Jersey; a research associate of the National Bureau of Economic Research; and a Distinguished Visiting Fellow at the Hoover Institution, Stanford University. OWEN F. HUMPAGE is a senior economic advisor in the Research Department of the Federal Reserve Bank of Cleveland. ANNA J. SCHWARTZ (1915–2012) was a research associate of the National Bureau of Economic Research for more than seventy years.

---

The University of Chicago Press, Chicago 60637  
The University of Chicago Press, Ltd., London  
© 2015 by The University of Chicago  
All rights reserved. Published 2015.  
Printed in the United States of America

24 23 22 21 20 19 18 17 16 15 1 2 3 4 5

ISBN-13: 978-0-226-05148-2 (cloth)  
ISBN-13: 978-0-226-05151-2 (e-book)  
DOI: 10.7208/chicago/9780226051512.001.0001

Library of Congress Cataloging-in-Publication Data

Bordo, Michael D., author.

Strained relations : US foreign-exchange operations and monetary policy in the twentieth century / Michael D. Bordo, Owen F. Humpage, and Anna J. Schwartz.  
pages cm. — (A National Bureau of Economic Research monograph)

Includes bibliographical references and index.

ISBN 978-0-226-05148-2 (cloth : alkaline paper) — ISBN 978-0-226-05151-2 (e-book)

1. Foreign exchange—Law and legislation—United States—History—20th century.  
2. Foreign exchange market—History—20th century. 3. United States—Economic policy—20th century. I. Humpage, Owen F., author. II. Schwartz, Anna J. (Anna Jacobson), 1915–2012, author. III. Title. IV. Series: National Bureau of Economic Research monograph.

HG3903.B67 2015

332.4'509730904—dc23

2014014046

© This paper meets the requirements of ANSI/NISO Z39.48–1992 (Permanence of Paper).

---

## National Bureau of Economic Research

### Officers

Martin B. Zimmerman, *chairman*  
Karen N. Horn, *vice chairman*  
James M. Poterba, *president and chief executive officer*  
Robert Mednick, *treasurer*

Kelly Horak, *controller and assistant corporate secretary*  
Alterra Milone, *corporate secretary*  
Denis Healy, *assistant corporate secretary*

### Directors at Large

Peter C. Aldrich  
Elizabeth E. Bailey  
John H. Biggs  
John S. Clarkeson  
Don R. Conlan  
Kathleen B. Cooper  
Charles H. Dallara  
George C. Eads  
Jessica P. Einhorn

Mohamed El-Erian  
Linda Ewing  
Jacob A. Frenkel  
Judith M. Gueron  
Robert S. Hamada  
Peter Blair Henry  
Karen N. Horn  
John Lipsky  
Laurence H. Meyer

Michael H. Moskow  
Alicia H. Munnell  
Robert T. Parry  
James M. Poterba  
John S. Reed  
Marina v. N. Whitman  
Martin B. Zimmerman

### Directors by University Appointment

Jagdish Bhagwati, *Columbia*  
Timothy Bresnahan, *Stanford*  
Alan V. Deardorff, *Michigan*  
Ray C. Fair, *Yale*  
Edward Foster, *Minnesota*  
John P. Gould, *Chicago*  
Mark Grinblatt, *California, Los Angeles*  
Bruce Hansen, *Wisconsin–Madison*

Benjamin Hermalin, *California, Berkeley*  
Marjorie B. McElroy, *Duke*  
Joel Mokyr, *Northwestern*  
Andrew Postlewaite, *Pennsylvania*  
Cecilia Rouse, *Princeton*  
Richard L. Schmalensee, *Massachusetts Institute of Technology*  
David B. Yoffie, *Harvard*

### Directors by Appointment of Other Organizations

Jean-Paul Chavas, *Agricultural and Applied Economics Association*  
Martin Gruber, *American Finance Association*  
Ellen L. Hughes-Cromwick, *National Association for Business Economics*  
Arthur Kennickell, *American Statistical Association*  
William W. Lewis, *Committee for Economic Development*  
Robert Mednick, *American Institute of Certified Public Accountants*

Alan L. Olmstead, *Economic History Association*  
Peter L. Rousseau, *American Economic Association*  
Gregor W. Smith, *Canadian Economics Association*  
William Spriggs, *American Federation of Labor and Congress of Industrial Organizations*  
Bart van Ark, *The Conference Board*

### Directors Emeriti

George Akerlof  
Glen G. Cain  
Carl F. Christ  
Franklin Fisher

George Hatsopoulos  
Saul H. Hymans  
Rudolph A. Oswald  
Peter G. Peterson

Nathan Rosenberg  
John J. Siegfried  
Craig Swan

---

## **Relation of the Directors to the Work and Publications of the National Bureau of Economic Research**

1. The object of the NBER is to ascertain and present to the economics profession, and to the public more generally, important economic facts and their interpretation in a scientific manner without policy recommendations. The Board of Directors is charged with the responsibility of ensuring that the work of the NBER is carried on in strict conformity with this object.

2. The President shall establish an internal review process to ensure that book manuscripts proposed for publication DO NOT contain policy recommendations. This shall apply both to the proceedings of conferences and to manuscripts by a single author or by one or more co-authors but shall not apply to authors of comments at NBER conferences who are not NBER affiliates.

3. No book manuscript reporting research shall be published by the NBER until the President has sent to each member of the Board a notice that a manuscript is recommended for publication and that in the President's opinion it is suitable for publication in accordance with the above principles of the NBER. Such notification will include a table of contents and an abstract or summary of the manuscript's content, a list of contributors if applicable, and a response form for use by Directors who desire a copy of the manuscript for review. Each manuscript shall contain a summary drawing attention to the nature and treatment of the problem studied and the main conclusions reached.

4. No volume shall be published until forty-five days have elapsed from the above notification of intention to publish it. During this period a copy shall be sent to any Director requesting it, and if any Director objects to publication on the grounds that the manuscript contains policy recommendations, the objection will be presented to the author(s) or editor(s). In case of dispute, all members of the Board shall be notified, and the President shall appoint an ad hoc committee of the Board to decide the matter; thirty days additional shall be granted for this purpose.

5. The President shall present annually to the Board a report describing the internal manuscript review process, any objections made by Directors before publication or by anyone after publication, any disputes about such matters, and how they were handled.

6. Publications of the NBER issued for informational purposes concerning the work of the Bureau, or issued to inform the public of the activities at the Bureau, including but not limited to the NBER Digest and Reporter, shall be consistent with the object stated in paragraph 1. They shall contain a specific disclaimer noting that they have not passed through the review procedures required in this resolution. The Executive Committee of the Board is charged with the review of all such publications from time to time.

7. NBER working papers and manuscripts distributed on the Bureau's web site are not deemed to be publications for the purpose of this resolution, but they shall be consistent with the object stated in paragraph 1. Working papers shall contain a specific disclaimer noting that they have not passed through the review procedures required in this resolution. The NBER's web site shall contain a similar disclaimer. The President shall establish an internal review process to ensure that the working papers and the web site do not contain policy recommendations, and shall report annually to the Board on this process and any concerns raised in connection with it.

8. Unless otherwise determined by the Board or exempted by the terms of paragraphs 6 and 7, a copy of this resolution shall be printed in each NBER publication as described in paragraph 2 above.

---

# Contents

---

	Preface	ix
1.	<b>On the Evolution of US Foreign-Exchange-Market Intervention: Thesis, Theory, and Institutions</b>	1
2.	<b>Exchange Market Policy in the United States: Precedents and Antecedents</b>	27
3.	<b>Introducing the Exchange Stabilization Fund, 1934–1961</b>	56
4.	<b>US Intervention during the Bretton Woods Era, 1962–1973</b>	120
5.	<b>US Intervention and the Early Dollar Float, 1973–1981</b>	210
6.	<b>US Foreign-Exchange-Market Intervention during the Volcker-Greenspan Era, 1981–1997</b>	268
7.	<b>Lessons from the Evolution of US Monetary and Intervention Policies</b>	332
	Epilogue: Foreign-Exchange-Market Operations in the Twenty-First Century	345
	Appendix 1: Summaries of Bank of England Documents	365
	Appendix 2: Empirical Method for Assessing Success Counts	375



Notes	389
References	411
Index	431

---

## Preface

---

This book has been in preparation for a long time. Michael Bordo and Anna Schwartz conceived of the idea for a history of US exchange-market intervention and began collaborating on the research in 1990. Owen Humpage joined the project in 2000. We are deeply indebted to many individuals and organizations for help and encouragement over the years.

Much of our research relied heavily on a unique, heretofore confidential, data set consisting of all official US foreign-exchange transactions conducted through the Federal Reserve Bank of New York between 1962 and 1995. We are very grateful to Dino Kos and Laura Weir at the Federal Reserve Bank of New York, Michael Leahy at the Board of Governors of the Federal Reserve System, and Timothy D. DuLaney at the US Treasury for providing us with these data. We owe a huge debt to Zebo Zakir, a former research assistant at the Federal Reserve Bank of Cleveland, for painstakingly entering these data into computer files from various printed documents. Likewise, we extend our sincere appreciation to Michael Shenk, who, as we learned more about the operations, helped us reorganize a large part of the data. We also sincerely thank Norman Bernard at the Board of Governors of the Federal Reserve System for providing us with many unpublished documents that explained US foreign-exchange operations.

We wish to express our sincere gratitude to the Federal Reserve Bank of Cleveland, especially Jerry Jordan, Sandra Pianalto, and Mark Sniderman, which provided generous support for the project, and to the Sarah Scaife Foundation which generously funded the research. We also thank the National Bureau of Economic Research for its financial support. Martin Feldstein, past president of the NBER, offered encouragement from the start. Marinella Moscheni, at the NBER's New York office, provided very valuable administrative assistance.

Our thanks to Will Melick at Kenyon College, Allan Meltzer at Carnegie Mellon University, and Christopher Neely at the Federal Reserve Bank of St. Louis for their comments on some of the chapters, to Michele Lachman at the Federal Reserve Bank of Cleveland for her editorial recommendations on some of the chapters, and to Monica Crabtree-Reusser for her assistance with the figures.

We are grateful to David Wheelock for giving us a copy of W. A. Brown's unpublished 1942 manuscript on the Exchange Stabilization Fund and to Sarah Millard at the Bank of England who provided materials from the Bank of England archives related to that bank's interactions with the Federal Reserve Bank of New York and the US Treasury in the 1930s. Finally, we thank Michael Leahy at the Board of Governors for graciously enduring many questions and requests related to this and similar projects over the years and for his comments on chapters 4, 5, and 6.

Our coauthor, Anna J. Schwartz, passed away on 21 June 2012. Anna wrote chapter 3 before we completed most of the other chapters and before we settled on the main organizing theme of the book. We decided not to alter Anna's chapter, since it is her last professional contribution to economic history.

The views expressed in this book are the authors' and not necessarily those of the Federal Reserve Bank of Cleveland, the Board of Governors of the Federal Reserve System, the board staff, or the NBER.

For acknowledgments, sources of research support, and disclosure of the authors' material financial relationships, if any, please see [www.nber.org/chapters/c12908.ack](http://www.nber.org/chapters/c12908.ack).