The JOURNAL of ECONOMIC HISTORY

VOLUME XXXIX

JUNE 1979

NUMBER 2

innovatio et traditio

BERLOW

The Sailing of the "Saint Esprit"

OVERTON

Estimating Crop Yields from Probate Inventories: An Example from East Anglia, 1585-1735

GREGORY

The Russian Balance of Payments, the Gold Standard, and Monetary Policy: A Historical Example of Foreign Capital Movements

FRAUNDORF

The Labor Force Participation of Turn-of-the-Century Married Women

CHAMBERLIN

Bulk Exports, Trade Tiers, Regulation, and Development: An Economic Approach to the Study of West Africa's "Legitimate Trade"

FIELD

Economic and Demographic Determinants of Educational Commitment: Massachusetts, 1855 NOTES AND DISCUSSION

REVIEW ARTICLES

PUBLISHED BY THE ECONOMIC HISTORY ASSOCIATION AT EMORY UNIVERSITY

EDITORS

RONDO CAMERON RICHARD SYLLA

EDITORIAL STAFF

Ann Cooke, Assistant Editor Cynthia Walsh Kloss, Assistant Editor Richmond D. Williams, Business Manager

EDITORIAL BOARD

Philip D. Curtin Jan De Vries Ian M. Drummond Richard A. Easterlin Stanley L. Engerman David Felix Claudia D. Goldin David Herlihy Peter D. McClelland Donald N. McCloskey John P. McKay Hugh T. Patrick Gaston V. Rimlinger Richard W. Roehl Stanley J. Stein Gavin Wright

Johns Hopkins Berkeley Toronto Pennsylvania Rochester Washington University Princeton Harvard Cornell Chicago Illinois Yale Rice Michigan-Dearborn Princeton Michigan

THE JOURNAL OF ECONOMIC HISTORY is published in March, June, September, and December by The Economic History Association at Emory University. The JOURNAL is sent to all members of the Association. Membership rates are: student membership, \$5.00; regular membership, United States, \$15.00; library subscriptions, \$25.00; regular membership, foreign, \$15.50; professors emeriti who have been members of the Association for ten years, \$10.00; back issues, \$5.00. Applications and inquiries concerning membership and single copies should be addressed to Secretary-Treasurer RICH-MOND D. WILLIAMS, Eleutherian Mills Historical Library, P.O. Box 3630, Wilmington, Delaware 19807.

Articles on economic history and related aspects of history or economics will be considered for publication by the editors. Those manuscripts incorporating the results of detailed original research should include some discussion of the broader significance of the subject matter. Contributions should be typed double-spaced; tables and footnotes, also double-spaced, should be grouped separately at the end of the paper. Three copies of each manuscript should be submitted, and each manuscript should be accompanied by a statement of the approximate number of words which it contains. A submission fee of \$15.00 is required from non-members of The Economic History Association. Prospective contributors may obtain from the Editorial Office a copy of "Suggestions to Contributors," a list of the major literary and stylistic customs of the JOURNAL.

Articles and correspondence relating to editorial functions of THE JOURNAL OF ECONOMIC HIS-TORY should be directed to the Editorial Office, THE JOURNAL OF ECONOMIC HISTORY, Administration Building Box 41, Emory University, Atlanta, Georgia 30322.

PUBLISHED QUARTERLY BY THE ECONOMIC HISTORY ASSOCIATION AT EMORY UNIVERSITY

BUSINESS OFFICE: ELEUTHERIAN MILLS HISTORICAL LIBRARY, P.O. BOX 3630, WILMINGTON, DELAWARE 19807

Second Class Postage Paid at Wilmington, Del. and at Additional Mailing Offices Copyright 1979 by The Economic History Association Printed in the U.S.A. by The William Byrd Press, Inc. ISSN 0022-0507 USPS-279580

THE JOURNAL OF ECONOMIC HISTORY

Volume XXXIX	June 1979	Number 2
ARTICLES		
ROSALIND KENT B The Sailing of the "S		345
MARK OVERTON Estimating Crop Yiel East Anglia, 1585-17.	lds from Probate Inventories: An Ex 35	ample from 363
	Y of Payments, the Gold Standard, an Example of Foreign Capital Movement	
MARTHA NORBY F The Labor Force Par	FRAUNDORF ticipation of Turn-of-the-Century Mar	ried Women 401
	AMBERLIN Tiers, Regulation, and Development: A ly of West Africa's "Legitimate Trade"	
ALEXANDER JAME Economic and Demog Massachusetts, 1855	S FIELD graphic Determinants of Educational C	Commitment: 439
NOTES AND DISCUS	SSION	
	RRAN AND JACK JOHNSTON ey Market and the Economic Impact	of the Bank 461
MARIE ELIZABETH The Antebellum Mone War: A Reply	SUSHKA ey Market and the Economic Impact	of the Bank 467
ALAN L. OLMSTEA The Diffusion of the F	D Reaper: One More Time!	475
REVIEW ARTICLES	•	
FRANK M. MURTA Penultimo Cavour	UGH, JR.	477
JON S. COHEN Conflict on the Left: M	Marxist Economists and the Friendly E	Enemy 481

LETTER TO THE EDITORS

BOOK NOTES

REVIEWS OF BOOKS

ANCIENT AND MEDIEVAL

HERLIHY, DAVID, and CHRISTIANE KLAPISCH- ZUBER	Les Toscans et leurs familles: Une étude du Catasto flo- rentin de 1427, reviewed by Aldo de Maddalena	495
MUELLER, REINHOLD C.	The Procuratori di San Marco and the Venetian Credit Market: A Study of the Development of Credit and Banking in the Trecento, reviewed by Louise Buen- ger Robbert	496
GOTTFRIED, ROBERT S.	Epidemic Disease in Fifteenth-Century England: The Medical Response and the Demographic Conse- quences, reviewed by A. R. Bridbury	497
	Modern Europe	
WOLFF, PHILIPPE, compiler	Guide international d'histoire.urbaine, Vol. 1, reviewed by Eric E. Lampard	498
KONVITZ, JOSEF W.	Cities and the Sea: Port City Planning in Early Modern Europe, reviewed by Richard T. Rapp	498
KNOPPERS, JAKE TH.	Dutch Trade with Russia from the Time of Peter I to Al- exander I: A Quantitative Study in Eighteenth Cen- tury Shipping, Vols. I-III, reviewed by Walther Kirchner	499
BOS, ROELAND W.J.M.	Brits-Nederlandse Handel en Scheepvaart, 1870-1914: Een Analyse van Machtsafbrokkeling op een Markt, reviewed by H.R.C. Wright	500
TILLY, LOUISE A., and JOAN W. SCOTT	Women, Work and Family, reviewed by Neil J. Smelser	501
LIEBERMAN, SIMA	The Growth of European Mixed Economies, 1945-1970: A Concise Study of the Economic Evolution of Six Countries, reviewed by Herman Van der Wee	502
TORRINGTON, DEREK, editor	Comparative Industrial Relations in Europe, reviewed by Val R. Lorwin	503
BLAINPAIN, JAN, with LUC DELESIE and HERMAN NYS	National Health Insurance and Health Resources: The European Experience, reviewed by Edward P. Dug- gan	505
LEVINE, DAVID	Family Formation in an Age of Nascent Capitalism, re- viewed by Carole Shammas	506
CHALLIS, C. E.	The Tudor Coinage, reviewed by Ben Baack	507
JACK, SYBIL M.	Trade and Industry in Tudor and Stuart England, re- viewed by R. B. Outhwaite	508
CHALONER, WILLIAM H., and BARRIE M. RATCLIFFE, editors	Trade and Transport: Essays in Economic History in Honour of T. S. Willan, reviewed by Walter Min- chinton	509

https://doi.org/10.1017/S0022050700091531 Published online by Cambridge University Press

491

SCHAFER, R.G., editor	A Selection from the Records of Philip Foley's Stour Valley Iron Works, 1668-74, Part I, reviewed by M. S. Flinn	510
YOGEV, GEDALIA	Diamonds and Coral: Anglo-Dutch Jews and Eighteenth Century Trade, reviewed by Sima Lieberman	511
LANE, PETER	The Industrial Revolution: The Birth of the Modern Age, reviewed by Charles K. Hyde	512
SHAW, CHARLES	When I Was a Child,	
BROWN, JOHN	and A Memoir of Robert Blincoe, reviewed by S. G. Check- land	513
TILLMANN, MARTIN	Bridge Hall Mills: Three Centuries of Paper and Cellu- lose Film Manufacture, reviewed by Neil K. Buxton	514
HERBERT, GILBERT	Pioneers of Prefabrication: The British Contribution in the Nineteenth Century, reviewed by James H. Sol- tow	515
JEFFERYS, JAMES B.	Business Organisation in Great Britain, 1856-1914, re- viewed by Leslie Hannah	516
SOFFER, REBA N.	Ethics and Society in England: The Revolution in the Social Sciences, 1870-1914, reviewed by Craufurd D. Goodwin	517
MAC KENZIE, NORMAN, editor	The Letters of Sidney and Beatrice Webb, 3 vols., re- viewed by Harold Smith	518
BELLAMY, JOYCE M., and JOHN SAVILLE,	Dictionary of Labour Biography, Vols. 3 and 4, re- viewed by David Mitch	519
PIMLOTT, BEN	Labour and the Left in the 1930's, reviewed by Joseph Finkelstein	520
HOLMES, COLIN, editor	Immigrants and Minorities in British Society, reviewed by B. R. Mitchell	521
WHETHAM, EDITH H.	The Agrarian History of England and Wales, Vol. VIII, 1914-39, reviewed by Wray Vamplew	522
CABOURDIN, GUY	Terre et hommes en Lorraine (1550-1635): Toulois et Comté de Vaudémont, 2 vols., reviewed by Thomas F. Sheppard	523
GUIGNET, PHILIPPE	Mines, manufactures et ouvriers du Valenciennois au XVIIIe siècle, 2 vols., reviewed by William M. Reddy	524
DESERT, GABRIEL	Une société rurale au XIXe siècle: Les paysans du Cal- vados, 1815-1895, reviewed by George Grantham	525
ACKERMAN, EVELYN BERNETTE	Village on the Seine: Tradition and Change in Bon- nières, 1815-1914, reviewed by Paul M. Hohenberg	526
VIALLON, JEAN-BAPTISTE	La Croissance agricole en France et en Bourgogne de 1850 à nos jours, 2 vols., reviewed by William H. Newell	527
GOREUX, LOUIS-MARIE	Agricultural Productivity and Economic Development in France, 1852-1950,	
NEWELL WILLIAM HENDY	and Population Change and Agricultural Productivity in	
NEWLEL, WILLIAM NENK I	Nineteenth-Century France, reviewed by Michel Mo- rineau	529

.

BROSSELIN, ARLETTE	Les Forêts de la Côte d'Or au XIXème siècle et l'utilisation de leurs produits, reviewed by Charles E. Freedeman	530
FIERAIN, JACQUES	Les raffineries de sucre des ports en France, XIXe-début du XXe siècle, reviewed by Reed Gieger	531
DAGNEAU, JACQUES	Les Agences régionales du Crédit Lyonnais, années 1870-1914, reviewed by Michael S. Smith	532
SALY, PIERRE	La Politique des grands travaux en France, 1929-1939: Grands travaux et investissements publics des années trente dans la tradition administrative française, re- viewed by Michael J. Rust	533
BRUNEEL, CLAUDE	La Mortalité dans les campagnes: le duché de Brabant aux XVIIe et XVIIIe siècles, 2 vols., reviewed by Myron P. Gutmann	534
BAUDET, H., and H. VAN DER MEULEN, editors	Kernproblemen der Economische Geschiedenis, re- viewed by Joel Mokyr	535
LANDBOUWHOGESCHOOL WAGENINGEN	A.A.G. Bijdragen, 21, reviewed by Frank E. Dykema	537
ØSTERUD, ØYVIND	Agrarian Structure and Peasant Politics in Scandinavia: A Comparative Study of Rural Response to Economic Change, reviewed by Bernard Olsen	538
ABEL, WILHELM	Agrarkrisen und Agrarkonjunktur. Eine Geschichte der Land- une Ernährungswirtschaft Mitteleuropas seit dem hohen Mittelalter, reviewed by Jerome Blum	539
STOLZ, PETER	Basler Wirtschaft in vor- und frühindustrieller Zeit: Ökonomische Theorie und Wirtschaftsgeschichte im Dialog, reviewed by Herman Freudenberger	540
LEE, W. ROBERT	Population Growth, Economic Development, and Social Change in Bavaria, 1750-1850, reviewed by Eckart Schremmer	541
HOHORST, GERD	Wirtschaftswachstum und Bevölkerungsentwicklung in Preussen 1816 bis 1914, reviewed by Lawrence Scho- fer	542
HAINES, MICHAEL R.	Economic-Demographic Interrelations in Developing Agricultural Regions: A Case Study of Prussian Upper Silesia, 1840-1914, reviewed by William H. Hub- bard	543
JANKOWSKI, MANFRED DIETER	Public Policy in Industrial Growth: The Case of the Ruhr Mining Region, 1776-1865, reviewed by Paul B. Hu- ber	544
SCHAUMANN, RALF	Technik und technischer Fortschritt im Industrial- isierungsprozess: Dargestellt am Beispiel der Papier-, Zucker- und Chemischen Industrie der nördlischen Rheinlande (1800-1875), reviewed by Hans R. Ro- senberg	544

.

POHL, HANS, and WILHELM TREUE, editors	Die Konzentration in der deutschen Wirtschaft seit dem 19. Jahrhundert. Zeitschrift für Unternehmensge- schichte, Supplement II, reviewed by Richard Tilly	546
NEUBURGER, HUGH	German Banks and German Economic Growth from Unification to World War I, reviewed by Udo Heyn	546
PETZINA, DIETMAR	Die deutsche Wirtschaft in der Zwischenkriegszeit, re- viewed by William H. Hubbard	547
ROESLER, JÖRG	Die Herausbildung der sozialistischen Planwirtschaft in der DDR: Aufgaben, Methoden und Ergebnisse der Wirtschaftsplannung in der zentralgeleiteten volk- seigenen Industrie während der Übergangsperiode vom Kapitalismus zum Socialismus, reviewed by Robert J. Gibbons	548
HUERTAS, THOMAS	Economic Growth and Economic Policy in a Multi-Na- tional Setting: The Habsburg Monarchy, 1841-1865, reviewed by David F. Good	549
SANDGRUBER, ROMAN	Österreichische Agrarstatistik 1750-1918, reviewed by Nachum T. Gross	550
FREUDENBERGER, HERMAN, and GERHARD MENSCH	Von der Provinzstadt zur Industrieregion (Brünn- Studie): Ein Beitrag zur Politökonomie der Sozialin- novation, dargestellt am Innovationsschub der indus- triellen Revolution im Raume Brünn, and	
BALTZAREK, FRANZ, ALFRED HOFFMAN, and HANNES STEKL	Wirtschaft und Gesellschaft der Wiener Stadterweite- rung, reviewed by Steven B. Webb	551
BAKER, GEORGE R.F.	Sallustio Bandini: Con una nuova edizione del "Discorso sopra la Maremma di Siena," reviewed by Lloyd Saville	552
MATTOZZI, IVO	Produzione e commercio della carta nello stato vene- ziano settecentesco: lineamenti e problemi, reviewed by Peter R. Toscano	553
COHEN, JON S.	Finance and Industrialization in Italy, 1894-1914, re- viewed by Shepard B. Clough	554
SCHNEIDER, JANE, and PETER SCHNEIDER	Culture and Political Economy in Western Sicily, re- viewed by Gustav Schachter	554
BRUMONT, FRANCIS	La Bureba à l'époque de Philippe II, 2 vols., reviewed by Ruth Pike	555
ARTOLA, MIGUEL, A.M. BERNAL, and JAIME CONTRERAS	El latifundio: Propiedad y explotación, ss. XVIII-XX, reviewed by Juan Hernández Andreu	556
ARTOLA, MIGUEL	Antiguo régimen y revolción liberal, reviewed by David R. Ringrose	557
TORTELLA-CASARES, GABRIEL	Banking, Railroads, and Industry in Spain, 1829-1874, reviewed by James H. Rial	559
HUNGARY, KÖZPONTI STATISZTIKAI HIVATAL KÖNYVTÁRA	Történeti statisztikai tanulmányok, Vol. 3, reviewed by John Komlos	, 559
MIECZKOWSKI, BOGDAN	Transportation in Eastern Europe: Empirical Findings, reviewed by George Ranki	560

TIKHMENEV, P.A.	History of the Russian-American Company, reviewed by Walther Kirchner	561
GEYER, DIETRICH	Der russische Imperialismus: Studien über den Zusam- menhang von innerer und auswärtiger Politik, 1860- 1914, reviewed by Anita B. Baker	562
Α	SIA, AFRICA, AND LATIN AMERICA	
PERKINS, DWIGHT, editor	China's Modern Economy in Historical Perspective, and	
ECKSTEIN, ALEXANDER	China's Economic Revolution, reviewed by Shannon R. Brown	563
LARDY, NICHOLAS R.	Economic Growth and Distribution in China, reviewed by Bobby A. Williams	565
VIRAPHOL, SARASIN	Tribute and Profit: Sino-Siamese Trade, 1652-1853, re- viewed by Yeh-chien Wang	566
HO, SAMUEL P.S.	Economic Development of Taiwan, 1860-1970, re- viewed by Shou-eng Koo	567
SMITH, ROBERT J.	Kurusu: The Price of Progress in a Japanese Village, 1951-1975, reviewed by Koji Taira	569
DIVEKAR, V. D., and others, editors	Annotated Bibliography on the Economic History of In- dia (1500 A.D. to 1947 A.D.), Vols. I and II, re- viewed by Morris David Morris	57 [′] 0
DISNEY, A. R.	Twilight of the Pepper Empire: Portuguese Trade in Southwest India in the Early Seventeenth Century, re- viewed by C. R. Boxer	571
HIRASHIMA, SHIGEMOCHI	The Structure of Disparity in Developing Agriculture: A Case Study of the Pakistan Punjab, reviewed by Da- vid Feeny	572
KLEIN, HERBERT S.	The Middle Passage: Comparative Studies in the Atlan- tic Slave Trade, reviewed by Patrick Bryan	573
LE VEEN, E. PHILLIP	British Slave Trade Suppression Policies, 1821-1865, re- viewed by David Eltis	574
MILBOURN, JOSEPHINE F.	British Business and Ghanaian Independence, reviewed by Holger L. Engberg	575
RANDALL, LAURA	A Comparative History of Latin America, Vol. I, Mex- ico, Vol. II, Argentina, Vol. III, Brazil, Vol. IV, Peru, reviewed by Kenneth J. Grieb	576
ANDREWS, KENNETH R.	The Spanish Caribbean: Trade and Plunder, 1530-1630, reviewed by Ruth Pike	577
FISHER, J. R.	Silver Mines and Silver Miners in Colonial Peru, 1776- 1824, reviewed by Enrique Tandeter	579
KRISTJANSON, LOWELL GUDMUNDSON	Estratificación socio-racial y económica de Costa Rica: 1700-1850, reviewed by Susan Migden Socolow	579
	United States and Canada	
SCOTT, WILLIAM B.	In Pursuit of Happiness: American Perceptions of Prop- erty from the Seventeenth to the Twentieth Century, reviewed by Jonathan Hughes	580

KIRK, GORDON W., JR.	The Promise of American Life: Social Mobility in a Nineteenth Century Immigrant Community, reviewed by Howard P. Chudacoff	581
DECKER, PETER R.	Fortunes and Failures: White Collar Mobility in Nine- teenth-Century San Francisco, reviewed by Roger D. Simon	582
ACHENBAUM, W. ANDREW	Old Age in the New Land: The American Experience since 1790, reviewed by Robert Clark	583
KATZMAN, DAVID M.	Seven Days a Week: Women and Domestic Service in Industrializing America, reviewed by Elyce J. Rotella	584
FONER, PHILIP S.	The Factory Girls, reviewed by H. M. Gitelman	585
RAMIREZ, BRUNO	When Workers Fight: The Politics of Industrial Rela- tions in the Progressive Era, 1898-1916, reviewed by Daniel J. Leab	585
MC LAURIN, MELTON A.	The Knights of Labor in the South, reviewed by Max M. Schreiber	586
HIGGS, ROBERT	Competition and Coercion: Blacks in the American Economy, 1865-1914, reviewed by Joel Williamson	586
DE CANIO, STEPHEN J.	Agriculture in the Postbellum South: The Economics of Production and Supply, reviewed by Robert Higgs	588
FRIES, SYLVIA DOUGHTY	The Urban Idea in Colonial America, reviewed by Edward P. Duggan	589
WALLACE, ANTHONY F. C.	Rockdale: The Growth of an American Village in the Early Industrial Revolution, reviewed by Stanley L. Engerman	589
SIMON, ROGER D.	The City-Building Process: Housing and Services in New Milwaukee Neighborhoods, 1880-1910, reviewed by Louis P. Cain	591
FUNIGIELLO, PHILLIP J.	The Challenge to Urban Liberalism: Federal-City Rela- tions during World War II, reviewed by Alan D. An- derson	591
SMITH, MERRITT ROE	Harpers Ferry Armory and the New Technology: The Challenge of Change, reviewed by Paul Uselding	592
BLUESTONE, DANIEL M., editor	Cleveland: An Inventory of Historic Engineering and In- dustrial Sites, reviewed by Edward Pershey	594
WHITE, JOHN H., JR.	The American Railroad Passenger Car, reviewed by John B. Rae	594
SAUNDERS, RICHARD	The Railroad Mergers and the Coming of Conrail, re- viewed by Kent T. Healy	595
JAMES, JOHN A.	Money and Capital Markets in Postbellum America, re- viewed by Richard H. Keehn	596
POPKIN, JOEL, editor	Analysis of Inflation: 1965 to 1974, reviewed by Mi- chael David Bordo	597
BORCHERDING, THOMAS E.	Budgets and Bureaucrats: The Sources of Government Growth, reviewed by W. Elliot Brownlee	599

.

ELZINGA, KENNETH G., and william breit	The Antitrust Penalties: A Study in Law and Economics, reviewed by Clair E. Morris	600
YOUNG, BRIAN J.	Promoters and Politicians: The North-Shore Railways in the History of Quebec, 1854-85, reviewed by Trevor J. O. Dick.	601
ALEXANDER, DAVID	The Decay of Trade: An Economic History of the New- foundland Saltfish Trade, 1935-1965, reviewed by Douglass McCalla	602
AVAKUMOVIC, IVAN	Socialism in Canada: A Study of the CCF-NDP in Fed- eral and Provincial Politics, reviewed by R. E. Olley	602
·	ECONOMIC IDEAS AND DOCTRINES	
GRICE-HUTCHINSON, MARJORIE	Early Economic Thought in Spain, 1177-1740, reviewed by Camille Castorina	604
WINCH, DONALD	Adam Smith's Politics: An Essay in Historiographic Re- vision, reviewed by Thomas Sowell	604
BÉDARIDA, F., and others	Pour une histoire de la statistique, Vol. 1, Contributions, reviewed by Richard Roehl	605
DEANE, PHYLLIS	The Evolution of Economic Ideas, reviewed by Alexan- der J. Field	60
PATINKIN, DON, and J. CLARK LEITH, editors	Keynes, Cambridge, and the General Theory, reviewed by Robert Lekachman	601
BROWN, HENRY PHELPS	The Inequality of Pay, reviewed by Martin Bronfen- brenner	608
LINDBLOOM, CHARLES E.	Politics and Markets: The World's Political-Economic Systems, reviewed by D. E. Moggridge	60
LEVINE, DAVID P.	Economic Studies: Contributions to the Critique of Eco- nomic Theory, reviewed by Hans E. Jensen	61
	GENERAL AND MISCELLANEOUS	
POLANYI, KARL	The Livelihood of Man,	
PRYOR, FREDERIC L.	and The Origins of the Economy: A Comparative Study of Distribution in Primitive and Peasant Economies, re- viewed by Barrington Moore, Jr	612
LEE, RONALD DEMOS, editor	Population Patterns in the Past, and	
TILLY, CHARLES, editor	Historical Studies in Changing Fertility, reviewed by David Levine	614
MULTHAUF, ROBERT P.	Neptune's Gift: A History of Common Salt, reviewed by John Geise	610
HELLING, GERTRUD	Nahrungsmittel-Production und Weltaussenhandel seit Anfang des 19. Jahrhunderts, reviewed by Geza Grosschmid	617
MC CUSKER, JOHN J.	Money and Exchange in Europe and America, 1600- 1775: A Handbook, reviewed by Julian Gwyn	618
LATHAM, A. J. H.	The International Economy and the Undeveloped World, 1865-1914, reviewed by John R. Hanson II	618
LEWIS, W. ARTHUR	Growth and Fluctuations, 1870-1913, reviewed by W. W. Rostow	620

https://doi.org/10.1017/S0022050700091531 Published online by Cambridge University Press