COMMODITY CHAINS AND GLOBAL CAPITALISM

Gary Gereffi and Miguel Korzeniewicz

COMMODITY CHAINS AND GLOBAL CAPITALISM

Gary Gereffi and Miguel Korzeniewicz

Studies in the Political Economy of the World-System
IMMANUEL WALLERSTEIN
Series Adviser

Contributions in Economics and Economic History, Number 149



___ GREENWOOD PRESS tport, Connecticut • London

Library of Congress Cataloging-in-Publication Data

Commodity chains and global capitalism / edited by Gary Gereffi and Miguel Korzeniewicz.

 p. cm.—(Contributions in economics and economic history, ISSN 0084-9235; 149) (Studies in the political economy of the world-system)

Includes bibliographical references and index.

ISBN 0-313-28914-X (alk. paper)

1. Commercial products. 2. International division of labor.

3. Manufactures. 4. Offshore assembly industry. 5. International business enterprises—Management. 6. Competition, International.

I. Gereffi, Gary. II. Korzeniewicz, Miguel. III. Series.

IV. Series: Studies in the political economy of the world-system.

HF1040.7.C66 1994b

338.4'767—dc20 93-13956

British Library Cataloguing in Publication Data is available.

Copyright © 1994 by Gary Gereffi and Miguel Korzeniewicz

All rights reserved. No portion of this book may be reproduced, by any process or technique, without the express written consent of the publisher.

A paperback edition of *Commodity Chains and Global Capitalism* is available from the Praeger Publishers imprint of Greenwood Publishing Group, Inc. (ISBN: 0-275-94573-1).

Library of Congress Catalog Card Number: 93-13956

ISBN: 0-313-28914-X

ISSN: 0084-9235

First published in 1994

Greenwood Press, 88 Post Road West, Westport, CT 06881 An imprint of Greenwood Publishing Group, Inc.

Printed in the United States of America



The paper used in this book complies with the Permanent Paper Standard issued by the National Information Standards Organization (Z39.48–1984).

10 9 8 7 6 5 4 3 2 1

COMMODITY CHAINS AND GLOBAL CAPITALISM

Recent Titles in

Contributions in Economics and Economic History

Technology and U.S. Competitiveness: An Institutional Focus

W. Henry Lambright and Dianne Rahm, editors

The Development of the Greek Economy, 1950-1991

George A. Jouganatos

Business Finance in Less Developed Capital Markets

Klaus P. Fischer and George J. Papaioannou, editors

Logs for Capital: The Timber Industry and Capitalist Enterprise in the Nineteenth Century

Sing C. Chew

The American Pulp and Paper Industry, 1900-1940: Mill Survival, Firm Structure, and Industry Relocation

Nancy Kane Ohanian

Aspirations and Realities: A Documentary History of Economic Development Policy in Ireland since 1922

James L. Wiles and Richard B. Finnegan

Multinational Culture: Social Impacts of a Global Economy

Cheryl R. Lehman and Russell M. Moore, editors

The Age of Giant Corporations: A Microeconomic History of American Business,

1914–1992, A Third Edition Robert Sobel

International Agriculture Trade and Market Development Policy in the 1990s

John W. Helmuth and Don F. Hadwiger, editors

Comparative Studies of Local Economic Development: Problems in Policy Implementation

Peter B. Meyer, editor

United States-Japan Trade in Telecommunications: Conflict and Compromise

Meheroo Jussawalla, editor

Pacific-Asia and the Future of the World-System

Ravi Arvind Palat, editor

Development versus Stagnation: Technological Continuity and Agricultural Progress in

Pre-Modern China

Gang Deng

Acknowledgments

All the papers assembled in this volume were presented at the Sixteenth Annual Conference on the Political Economy of the World-System, held at Duke University on April 16–18, 1992. We would like to thank all the participants, including those not represented here, for making the conference a lively and intellectually stimulating event.

Organized under the auspices of the Political Economy of the World-System section of the American Sociological Association, the conference's local costs were generously supported by the Duke University Department of Sociology through funding provided by the Howard E. Jensen Trust and by the Office of the Provost at Duke. In addition, the publication of the paperback edition of this volume was made possible by grants from the Howard E. Jensen Trust, as well as from the Duke University Center for International Studies. Special thanks are given to Alan Kerckhoff and Kenneth Land of Duke's Sociology Department for their support of this initiative.

Numerous people were involved in facilitating the conference as well as the publication of this volume. Judith Dillon has coordinated the administrative support of all phases of this project with an uncommon degree of wit and charm. During the conference, she was assisted by a variety of sociology graduate students, including Phillip Atkison, Insook Chang, and Deborah Gross, along with Jay Chen, Lu-Lin Cheng, Stephanie Fonda, Kevin Kresse, and Brigitte Neary. The Department of Sociology at the University of New Mexico provided both financial and administrative assistance to Miguel Korzeniewicz, while Victoria Carty contributed to our efforts with logistical and research inputs. Amby

xiv • Acknowledgments

Rice, working at Duke University, has greatly improved the look of this volume by designing many of the figures and tables used in various chapters. Martha Dimes Toher has our thanks for the often underappreciated task (except by scholars) of preparing the index.

Contents

	Illustration	s	ix
	Acknowled	gments	xiii
1.		n: Global Commodity Chains ffi, Miguel Korzeniewicz, and Roberto P. fcz	1
PAR		orical and Spatial Patterns of Commodity ns in the World-System	15
2.	Commodity 1800	y Chains in the Capitalist World-Economy Prior to	17
	2.1	Commodity Chains: Construct and Research Terence K. Hopkins and Immanuel Wallerstein	17
	2.2	The Shipbuilding Commodity Chain, 1590–1790	
		Eyüp Özveren	20
	2.3	The Grain Flour Commodity Chain, 1590-1790 Sheila Pelizzon	34
	2.4	Conclusions About Commodity Chains Terence K. Hopkins and Immanuel Wallerstein	48

3.	Competition, Time, and Space in Industrial Change Erica Schoenberger	51
4.	The Global Distribution of Commodity Chains Roberto P. Korzeniewicz and William Martin	67
Part	II. The Organization of Commodity Chains	93
5.	The Organization of Buyer-Driven Global Commodity Chains: How U.S. Retailers Shape Overseas Production Networks Gary Gereffi	95
6.	Where Is the Chain in Commodity Chains? The Service Sector Nexus Eileen Rabach and Eun Mee Kim	123
7.	Institutionalizing Flexibility: A Comparative Analysis of Fordist and Post-Fordist Models of Third World Agro-Export Production	123
	Laura T. Raynolds	143
Part	III. The Geography of Commodity Chains	163
8.	The New Spatial Division of Labor and Commodity Chains in the Greater South China Economic Region Xiangming Chen	165
9.	Commodity Chains and Industrial Restructuring in the Pacific Rim: Garment Trade and Manufacturing Richard P. Appelbaum, David Smith, and Brad Christerson	187
10.	Strategic Reorientations of U.S. Apparel Firms Ian M. Taplin	205
11.	Automobile Commodity Chains in the NICs: A Comparison of South Korea, Mexico, and Brazil	
	Naeyoung Lee and Jeffrey Cason	223
Part	IV. Consumption and Commodity Chains	245
12.	Commodity Chains and Marketing Strategies: Nike and the Global Athletic Footwear Industry Miguel Korzeniewicz	247
13.	Fresh Demand: The Consumption of Chilean Produce in the United States	247
	Walter L. Goldfrank	267

14.	Commodity Chains and the Korean Automobile Industry Hyung Kook Kim and Su-Hoon Lee	281
15.	Cocaine, Commodity Chains, and Drug Politics: A Transnational Approach Suzanne Wilson and Marta Zambrano	297
	Bibliography	317
	Index	321
	About the Contributors	331

Illustrations

-	~~	**	-
1.	GI		F. C.
	LT.		

2.1	Shipbuilding Commodity Chain	22
2.2	Grain Flour Commodity Chain	35
4.1	Percentage of Total Population by Log GNP per Capita of the Country of Residence, 1990	72
4.2	Trends in Modal GNP per Capita by Zone	72
4.3	Trends in the Relative Size of the Three Zones	73
4.4	Hypothetical Commodity Chain	74
4.5	Zonal Distribution of Motor Vehicle Production, 1970–1987	76
4.6	Zonal Distribution of Tire Production, 1970-1987	77
4.7	Zonal Distribution of Crude Steel Production, 1970-1987	77
4.8	Zonal Distribution of Cotton Fiber Production, 1970-1987	78
4.9	Zonal Distribution of Cotton Yarn Production, 1970-1982	79
4.10	Zonal Distribution of Wheat Production, 1970-1987	79
4.11	Zonal Shifts in Selected Commodities, 1970-1987	81
4.12	Construction of Zonal Distribution of Hypothetical	83

x • Illustrations

5.1	The Organization of Producer-Driven and Buyer-Driven Global Commodity Chains	98
5.2	Production Frontiers for Global Sourcing by U.S. Retailers: The Apparel Industry	111
7.1	Fresh Fruit and Vegetable Commodity Chain	150
8.1	China's Trade with Taiwan via Hong Kong, 1977-1993	170
8.2	Indirect China-Taiwan Trade as Percentages of Their Total Trade, 1977–1992	171
8.3	The Formation of an Athletic Shoe Commodity Chain in the GSCER and Beyond	176
10.1	Apparel Commodity Chains	207
11.1	Auto Sector Exports, 1979-1989-Brazil, Mexico, and South Korea	225
11.2	Export Destinations of Finished Vehicles from Brazil, Mexico, and South Korea, 1983–1989	237
11.3	Composition of Auto Exports, 1983–1989—Brazil, Mexico, and South Korea	239
12.1	Total Wholesale Revenues of Athletic Footwear and Nike's and Reebok's Shares, 1981–1990	250
12.2	Nike Corporation's Changing Spheres of Control Within the Athletic Footwear Commodity Chain	262
13.1	The Commodity Chain in Chilean Fruit	270
14.1	Korean Automobile Commodity Chain	287
15.1	The Cocaine Commodity Chain	302
TAB	LES	
5.1	Sales of Leading U.S. Retailers, 1987-1992	106
5.2	Net Income and Return on Revenues of Leading U.S. Retailers, 1987–1991	107
5.3	Types of Retailers and Main Global Sourcing Areas	112
6.1	Different Categories of Services	126
6.2	Core Service Niches in PDCs and BDCs	133
7.1	Forms of Raw Material Production	151
7.2	Marketing Links of Agricultural Export Firms	153
8.1	Basic Indicators on China's Fujian and Guangdong Provinces, Compared with Hong Kong and Taiwan	168
8.2	Direct Foreign Investment in Shenzhen by Nationality, 1979–1985, 1989, and 1990	173

8.3	Taiwan's Capital Investment in China via Third Parties, by Selected Location and Industry, 1991	174
9.1	Men's Wool Suits Commodity Chain: Top Exporters, 1987	192
		192
9.2	Women's Synthetic Blouse Commodity Chain: Top Exporters, 1987	192
10.1	Clothing Establishments by Employment Size	209
10.2	Cost Comparison: T-shirts	218
11.1	Production and Export of Motor Vehicles from Selected NICs	224
11.2	Estimated Local Content Rates in the Auto Industry in South Korea, Brazil, and Mexico, 1988	229
11.3	Characteristics of Assembly Networks in South Korea, Mexico, and Brazil	231
11.4	Wages and Productivity Levels in the World Auto Industry, 1989	232
12.1	Wholesale Revenues in the U.S. Athletic Footwear Market, 1981-1990	249
14.1	Automobile Production in Selected Newly Industrializing Countries	282
14.2	Korean Automobile Firms' Sales, 1991	283
MAP	s	
8.1	The Extent of the Greater South China Economic Region	167
9.1	Men's Wool Suits, 1978, Atlantic Region	196
9.2	Men's Wool Suits, 1987, Atlantic Region	197
9.3	Women's Synthetic Blouses, 1978, Pacific Region	199
9.4	Women's Synthetic Blouses, 1987, Pacific Region	200

Introduction: Global Commodity Chains

Gary Gereffi, Miguel Korzeniewicz, and Roberto P. Korzeniewicz

Industrialization on a world scale has undergone significant shifts during the past two decades. The capacity to produce and export manufactured goods is being dispersed to an ever expanding network of peripheral and core nations alike. Economic globalization has been accompanied by flexible specialization, or the appearance of new, technologically dynamic forms of organization that usually are characterized by low equipment dedication, high product differentiation, and short production runs. In today's global factory, the production of a single commodity often spans many countries, with each nation performing tasks in which it has a cost advantage. The components of the Ford Escort, for example, are made and assembled in fifteen countries across three continents. Capitalism today thus entails the detailed disaggregation of stages of production and consumption across national boundaries, under the organizational structure of densely networked firms or enterprises (see Dicken, 1992; Porter, 1990; Reich, 1991). Crucial concepts in comparative sociology, such as national development and industrialization, are increasingly perceived as problematic in facilitating an understanding of these emerging patterns of social and economic organization.

But how novel are these emerging phenomena and world-economic patterns? Do they indeed signal the emergence of a new international division of labor? In order to successfully address these questions, we must find a theoretical approach that is analytically sensitive to historical change in order to evaluate and distinguish cyclical patterns from new trends. This framework must capture both the spatial features of these transformations across the world-economy, and the relationships that link these processes together. To contribute to such a theory,

and as a means of understanding the changing spatial organization of production and consumption in the contemporary world-economy, the articles in this book critically explore and elaborate the global commodity chains (GCCs) approach, which reformulates the basic conceptual categories needed to analyze new patterns of global organization and change.

A commodity chain has been defined by Hopkins and Wallerstein (1986: 159) as "a network of labor and production processes whose end result is a finished commodity." A GCC consists of sets of interorganizational networks clustered around one commodity or product, linking households, enterprises, and states to one another within the world-economy. These networks are situationally specific, socially constructed, and locally integrated, underscoring the social embeddedness of economic organization. As indicated by Hopkins and Wallerstein (chapter 2 in this volume), "the greatest virtue of a commodity chain is its emphasis on process" (p.50).

Specific processes or segments within a commodity chain can be represented as boxes or nodes, linked together in networks. Each successive node within a commodity chain involves the acquisition and/or organization of inputs (e.g., raw materials or semifinished products), labor power (and its provisioning), transportation, distribution (via markets or transfers), and consumption. The analysis of a commodity chain shows how production, distribution, and consumption are shaped by the social relations (including organizations) that characterize the sequential stages of input acquisition, manufacturing, distribution, marketing, and consumption.

The GCCs approach promotes a nuanced analysis of world-economic spatial inequalities in terms of differential access to markets and resources. Our GCC framework allows us to pose questions about contemporary development issues that are not easily handled by previous paradigms, and permits us to more adequately forge the macro-micro links between processes that are generally assumed to be discretely contained within global, national, and local units of analysis. The paradigm that GCCs embody is a network-centered and historical approach that probes above and below the level of the nation-state to better analyze structure and change in the world-economy.

COMPETITION, INNOVATION AND COMMODITY CHAINS

Bringing a new focus to world-systems theory, the articles in this book share an emphasis on competition and innovation as crucial world-economic components of historical shifts in the organization of global commodity chains. For example, Hopkins and Wallerstein (chapter 2) tell us that monopoly and competition are key to understanding the distribution of wealth among the nodes in a commodity chain. Within a commodity chain, a relatively greater share of wealth generally accrues to core-like nodes than to peripheral ones. This is because competitive pressures are less pronounced in core-like nodes than in peripheral ones. Enterprises and states in the core, according to this argument,

gain a competitive edge through innovations that transfer competitive pressures to peripheral areas of the world-economy.

To provide historical evidence for these propositions, Özveren and Pelizzon contribute to chapter 2 by analyzing (respectively) the organization of shipbuilding and wheat production. In shipbuilding, the type of networks linking labor, enterprises, and states were crucial in shaping competition. Dutch shipyards initially gained a competitive edge by exploiting lower costs (e.g., in raw materials and labor). Likewise, in the semiperipheral colonies of North America the availability of land acted as a magnet for labor, enhancing the competitive position of shipbuilders. Spain underwent an economic decline, but England remained an important competitor, partly because of navy orders. Later, the Dutch shipyards lost ground to their rivals in the Thames and colonial America. For the English shipyards, access to colonial raw materials lowered costs, while the growing importance of oceanic trade for the country increased demand. For the American shipyards, easy access to raw materials (timber) allowed them to overcome the constraint of higher labor costs. As a result of effective competition. shipbuilders in the core constantly faced the peripheralization of certain production processes, and responded by generating innovations designed to provide a new competitive edge (e.g., the introduction of steamships in the nineteenth century).

Innovation was not limited to manufacturing processes. Pelizzon (chapter 2) analyzes the characteristics of the wheat commodity chain to show that marketing emerged as a distinct set of activities only in core areas. In the periphery, landlords and merchants tended to be the same individuals. Core and peripheral areas were also distinct in their infrastructure, with the core being characterized by faster and more effective transportation. Finally, consumption showed distinct patterns in core and peripheral areas: wheat bread, for example, tended to be consumed only by the wealthy in core zones and the highest magnates of the periphery, while the poor in core zones and the well-off in the periphery consumed rye bread.

Differences between nodes located in core and peripheral areas also are explored by Appelbaum, Smith, and Christerson (chapter 9), who argue that the crucial distinction between poor and rich countries is in the relative value of the commodities produced in each area—rather than a simple expression of varying degrees of processing (for a similar point, see chapter 4 by R. P. Korzeniewicz and Martin; chapter 7 by Raynolds; and chapter 15 by Wilson and Zambrano). The authors examine whether high-value products (e.g., wool suits) tend to be characterized by greater spatial concentration than low-value goods (e.g., synthetic blouses). Their results show that high-value commodities indeed exhibit a greater degree of clustering in fewer nations. This research suggests that the growth of manufacturing in peripheral and semiperipheral areas has been fueled not only by high labor costs in the core, but as part of an entrepreneurial strategy designed to enhance industrial flexibility and overcome protectionist barriers preventing the free flow of commodities. Access to GCCs, the timing and place

of entry, and upgrading are sources of power for firms that hope to be internationally competitive. Constant upgrading becomes a driving objective in the organizational strategy of enterprises.

Patterns of competition and innovation are crucial to understanding the organization and transformation of GCCs. The relative distribution of wealth within a commodity chain often has been portrayed in the social sciences as reflective of levels in a hierarchy of production. Within this hierarchy, less wealth was assumed to accrue to nodes involving the production of raw materials, and to increase proportionally as movement proceeded to manufacturing, distribution, and so forth. But traditional "extractive" activities such as agriculture and mining are giving rise to new export-oriented and technology-intensive forms of production with considerable industrial value-added at the local level (see Raynolds, chapter 7; Wilson and Zambrano, chapter 15). Similarly, many of today's most profitable "service" industries are intimately tied to manufacturing activities that demolish the myth of a postindustrial society (Cohen and Zysman, 1987). In many developing nations, relatively labor-intensive services (like software programming, bank and airline data processing, and inexpensive medical services) may become a more important growth area than manufacturing. These cross-sectoral linkages can best be seen and appreciated using a GCC framework that does not limit itself to conventional "industry" boundaries. In fact, Hopkins and Wallerstein (chapter 2) indicate that the concept of GCCs ultimately challenges the hierarchical distinction between raw material production, industry, and services. All activities transform, all involve "human skilled judgment." Within a commodity chain, profitability shifts from node to node according to competitive pressures, and "industry" is not always a motor of development. The GCCs approach explains the distribution of wealth within a chain as an outcome of the relative intensity of competition within different nodes.

This emphasis on the important role of competition and innovation in shaping the distribution of wealth within global commodity chains brings a new focus to world-systems theory. To some extent, this is part of an interdisciplinary phenomenon in the social sciences. Recent changes in world markets and political structures have made international competitiveness a fashionable buzzword as well as a burgeoning topic in comparative research. But within world-systems theory, this new concern does not merely follow intellectual fashion: it is a consequence of ongoing debates about the role of entrepreneurial strategies, Schumpeterian innovations, and patterns of competition in shaping the global division of labor.

COMMODITY CHAINS AS COMPETITION EMBEDDED IN TIME AND SPACE

Is the world-economy characterized by a new division of labor? Focusing primarily on the twentieth century, Schoenberger (chapter 3) tends to answer yes. Her contribution tells us that competition, time, and space are closely