

German Industry and Global Enterprise BASF: The History of a Company

The corporate history of BASF spans an era of German and international economic history that began with the rise of the “new industries” as of the late nineteenth century and continues today in their confrontation with the new economy. This book examines BASF’s corporate governance, financial system, industrial relations, system of qualification, and relation to other companies. A corporate history of BASF promises more than an insight into the functioning of an industrial organization. It also reveals the reasons for the extraordinary economic dynamics of the German empire and the enormous expansion of the world economy before World War I. BASF’s history stands at the center of Germany’s wartime economy during two world wars and highlights both its strengths and weaknesses. Just as the IG Farben trust helped support Germany’s course of politicoeconomic autarky after 1933, so it was that BASF helped facilitate West Germany’s startlingly quick return to the world market. BASF has since been among the transnational companies whose efforts at the leading edge of economic and technological progress are paradigmatic for Germany’s entry into the new economy of the twenty-first century.

Werner Abelshausen is Chair in Economic History at the Faculty of History and Director of the Institute of Global Society Studies at Bielefeld University. He has authored 13 books and edited 12 others. He has published almost 100 articles in more than 20 journals, including works in German, English, French, Italian, Russian, and Japanese.

Wolfgang von Hippel is Professor of Modern History at the University of Mannheim.

Jeffrey Allan Johnson is Professor in the Department of History at Villanova University.

Raymond G. Stokes is Professor of International Industrial History at the University of Glasgow and Director of the Europe-Japan Social Science Research Center.

German Industry and Global Enterprise

BASF: The History of a Company

WERNER ABELSHAUSER
Bielefeld University

WOLFGANG VON HIPPEL
University of Mannheim

JEFFREY ALLAN JOHNSON
Villanova University

RAYMOND G. STOKES
University of Glasgow



CAMBRIDGE
UNIVERSITY PRESS

Cambridge University Press & Assessment
978-0-521-10119-6 — German Industry and Global Enterprise
Werner Abelshauser, Wolfgang von Hippel, Jeffrey Allan Johnson, Raymond G. Stokes
Frontmatter
[More Information](#)



CAMBRIDGE
UNIVERSITY PRESS

Shaftesbury Road, Cambridge CB2 8EA, United Kingdom
One Liberty Plaza, 20th Floor, New York, NY 10006, USA
477 Williamstown Road, Port Melbourne, VIC 3207, Australia
314-321, 3rd Floor, Plot 3, Splendor Forum, Jasola District Centre, New Delhi – 110025, India
103 Penang Road, #05-06/07, Visioncrest Commercial, Singapore 238467

Cambridge University Press is part of Cambridge University Press & Assessment,
a department of the University of Cambridge.

We share the University's mission to contribute to society through the pursuit of
education, learning and research at the highest international levels of excellence.

www.cambridge.org

Information on this title: www.cambridge.org/9780521101196

© Cambridge University Press & Assessment 2004

This publication is in copyright. Subject to statutory exception and to the provisions
of relevant collective licensing agreements, no reproduction of any part may take
place without the written permission of Cambridge University Press & Assessment.

First published 2004
First paperback edition 2025

A catalogue record for this publication is available from the British Library

ISBN 978-0-521-82726-3 Hardback

ISBN 978-0-521-10119-6 Paperback

Cambridge University Press & Assessment has no responsibility for the persistence
or accuracy of URLs for external or third-party internet websites referred to in this
publication, and does not guarantee that any content on such websites is, or will
remain, accurate or appropriate. Information regarding prices, travel timetables, and
other factual information given in this work is correct at the time of first printing but
Cambridge University Press & Assessment does not guarantee the accuracy of such
information thereafter.

Contents

Introduction by the Editor	<i>page</i> 1
From New Industry to the New Economy	1
I Becoming a Global Corporation – BASF from 1865 to 1900	5
<i>Wolfgang von Hippel</i>	
1. The Prehistory	7
Friedrich Engelhorn – Pioneering Entrepreneurship	7
A Massive Market – The Beautiful World of the New Dyestuffs	9
One of the First Coal-Tar Dye Factories in Germany	12
2. The Early Years (1865–1873)	15
Mannheim or Ludwigshafen? The Dramatic Establishment of the Corporation	15
The Large-Scale Project to Begin Anew in Ludwigshafen	19
From Imitation to Independent Research – Heinrich Caro	23
The First Synthesis of a Natural Dyestuff: Alizarin	26
On an Expansion Course: The Fusion with the Stuttgart Firms of Knosp and Siegle in 1873	31
3. Between Science and the Marketplace – BASF in the “Dyestuffs Age,” 1873–1900	36
An Overview	36
The Centers of Developments – Top Management and Organizational Problems	38
The Heart of the Company – Research and Production	50
Science as a Factor of Production – Laboratory Work	52
The Stony Path to the Marketplace – Dyeing Works as Testing Stations	55
“The Age of Dyestuffs” I: Aniline Dyes	57
“The Age of Dyestuffs” II: Azo-dyes	59
“The Age of Dyestuffs” III: Alizarin Dyes	63

	“The Age of Dyestuffs” IV: Indigo	65
	A Promising Future as a Supplier to the Industry:	
	Inorganic Production	70
	Structural Development, Technical Service Facilities	72
	The Ecological Costs of Production – Environmental Problems?	76
	Intellectual Property as a Factor of Production:	
	Patent Issues	79
	Integration into the Marketplace	82
	The Expression of Economic Success: Sales Turnover, Markets, and Profits and Their Use	93
	The Human Factor in Production: Firm Personnel – High-Ranking Salaried Employees (“Beamte”) and Workers	102
	Economy and Politics	112
II	The Power of Synthesis (1900–1925)	115
	<i>Jeffrey Allan Johnson</i>	
	1. A Company in Transition	115
	BASF at the Paris World Exposition of 1900	115
	Changes in Corporate Leadership Circa 1900	117
	The Victory of Synthetic Indigo	119
	New Products: Paths Taken and Not Taken	121
	2. From the Dreibund to von Brunck’s Death (1904–1911)	127
	The Dreibund: Concentration, Conflict, and Organizational Change	127
	Innovation and Marketing in Dyestuffs	136
	Innovation and Academic-Industrial Collaboration:	
	From Dye Chemistry to Nitrates	142
	Workers’ and Employees’ Movements	146
	The End of the von Brunck Era	150
	3. From Oppau to Leuna: Synthetic Ammonia and War (1912–1918)	151
	The Ammonia Synthesis, 1912–1914	151
	BASF on the Eve of the War, 1912–1914	157
	Mars Rising: Entering the War Economy	160
	The Leuna Project	165
	Wartime Reorganization: The Expanded IG	171
	From Labor Truce to Mass Protest: The Workforce at War	173
	4. From Crisis to Fusion (1919–1925)	177
	Defeat and Revolution: New Leadership Facing Postwar Challenges	177

Contents

vii

Stark Realities of the Peace Terms: Occupation, Technology Transfer, Reparations	183
Postwar Marketing and Innovation	189
Labor Conflicts and the Catastrophic Explosion in Oppau	193
From Crisis to Fusion (1922–1925)	201
III From the IG Farben Fusion to the Establishment of BASF AG (1925–1952)	206
<i>Raymond G. Stokes</i>	
1. Introduction	206
BASF in the IG Period: Overview and Initial Hypotheses	207
2. Fitting into the New Concern, 1925–1929	212
Organizational Change and the IG	214
The Upper Rhine Group in the Initial IG Period: Organization and Relationships with Other IG Plants	220
Trends in Production	222
Research and Development	230
Work and the Workforce	233
3. Coping with the Crisis, 1929–1933	235
Reorganizing the Trust and the Group in the Wake of the Crisis	236
Production Trends	239
Downsizing	243
Politicization of the German Chemical Industry and the Upper Rhine Group	247
4. Accommodation and Conflict, 1933–1936	250
The National Socialist Seizure of Power, the Trust, and the Group	251
Recovery in Production and Trends in R&D	264
Social and Labor Policy in the Factories	270
5. Autarky and Preparation for War, 1936–1939	273
The Four Year Plan Organization and Preparation for War	273
Production, Sales, and Research Trends	282
Work, the Workforce, and National Socialist Ideology and Practice	289
6. The Upper Rhine Group in German-Dominated Europe, 1939–1942	293
The National Socialist New Order and the Upper Rhine Group	294
War Production and Investment	306
Labor	310

7.	The BASF Group in Total War, 1942–1945	313
	Total War and the Upper Rhine Group Factories	314
	Production Trends	315
	Labor	322
	The Upper Rhine Group and IG Auschwitz	328
	Destruction and Postwar Planning	332
8.	From Occupation to Refounding, 1945–1952	335
	The Impact of the War on the BASF Factories	336
	Production and Investment under French Occupation	346
	The Workforce and the Re-emergence of Labor	
	Unionism	355
	The Breakup of the IG Farben Trust and the	
	Refounding of BASF	357
IV	BASF Since Its Refounding in 1952	362
	<i>Werner Abelshauser</i>	
1.	The Past Has a Future: Launching BASF Anew	362
	The Refounding	362
	Disincorporation	367
	Rebirth	371
2.	Corporate Culture: Tradition as a Resource?	376
	Rules and Context: The Social System of Production	376
	Strategy and Structure: Corporate Leadership	378
	Consistency and Flexibility: Financing	388
	Control and Trust: Shareholder Relations	397
	Partnership and Conflict: Industrial Relations	409
	Costs and Benefits: Plant Policy with a Social Bent	417
	Research, Technology, Application: Customized	
	Quality Production	428
3.	Old Markets, New Basis: Early Breakthrough to	
	Petrochemistry	435
	Old and New Markets	435
	The Founding of the Rhenish Olefin Works	441
	Breakthrough	450
4.	Tradition and Distance: The Second Breakup of	
	IG Farben	454
	Distance	454
	Cooperation	457
	Reintegration	460
	The Second Breakup	465
5.	The Way to the Top: Strategic Decisions	473
	Orientation Problems	473
	Profit Can Be Planned, or the Will to Greatness	478
	Interlocking Production Operations on a Large Scale,	
	or a New Technological Paradigm	483

Contents

ix

6. One, Two, Many “Ludwigshafens”: The Integrated Production System and the Siting Issue	487
The Ludwigshafen Site	487
Looking for the Second “Ludwigshafen”	491
Ludwigshafen Is Everywhere: Exporting a Model	496
Challenge I: Nuclear Power Plant	500
Challenge II: Environmental Protection	507
7. Learning from the United States? From Joint Venture to <i>Verbund</i>	513
Staying Power: Joint Venture with Dow	513
Caught Together, Hanged Together: Entering the Fiber Business	517
Battle of Cultures: The Tug-of-War over Dow Badische	527
Exporting a Model: Consolidation through the <i>Verbund</i>	538
8. Crisis and Consolidation	543
BASF: Badische Annulment and Suspension Factory	543
A Calamitous End: The Collapse of Phrix	551
Upheaval and Persistence: Corporate Reorganization	560
9. No Weary Shop of Raw Materials: Forward Integration and Acquisition	573
Off to New Shores	573
Tape Recorders I: The Struggle for the U.S. Market	577
Tape Recorders II: The “National Champion” on the Defensive	583
Lacquer: Defensive Forward Integration	590
Pharmaceuticals: The Early Bird . . .	599
Back to the Roots	610
10. Upheaval and Persistence	614
Toward the Transnational Company	614
The Road to New Industry: Old Industry or “New Economy”?	619
Appendix Trade Volume and Profits of BASF since its Founding in 1865	621
<i>Bibliography</i>	629
<i>Index of Archives</i>	643
<i>Index of Corporations</i>	645
<i>Index of Persons</i>	651
<i>Index of Products and Processes</i>	657
<i>Subject Index</i>	665

Introduction by the Editor

I. FROM NEW INDUSTRY TO THE NEW ECONOMY

The corporate history of BASF (Badische Anilin- & Soda-Fabrik, founded in 1865), spans an era of German and international economic history that began with the rise of the “new industries” as of the late nineteenth century and continues today in their confrontation with the new economy. BASF is one of the pioneers of that “second economic revolution,” whose significance in the eyes of Douglass C. North, a founding father of New Institutional Economics, far surpasses that of other economic turning points such as the Industrial Revolution. Ever since BASF was created in the midst of this revolutionary upheaval, it has had a hand in actively laying the groundwork and shaping the conditions of this stage of western economic life. The company embodies a special symbiosis between business and scientific research, one that has constituted the essence of economic value-added – and not only at BASF – from the outset but also increasingly in the economy at large.

The new industries of the late nineteenth century long ago became mainstays of the German economy. They now determine the tempo of growth, sustain the labor market, and influence what happens on the stock market. They are responsible for the leading role of exports as well. It is certainly no exaggeration to say that the future of the German economy (and many others) in the postindustrial age depends on the fate of these industries and on their competitiveness on the world market. That link makes the history of a company that is now nearly 140 years old an important chapter in a still unfinished epoch of economic history. Like most companies of new industry, BASF is among the pioneers of expanding global and transnational market relations. This expansion started in the first decades of the company’s existence. By the outbreak of World War I, the dimensions and dynamics of the world market had already developed to a level not achieved again until the second half of the twentieth century. Though the process known today as globalization was repeatedly interrupted by two world wars and the Great Depression, its intrinsic coherence remained intact. This point becomes clearer from the company’s history than from a macroeconomic perspective. BASF developed at the forefront of the process but was also drawn deep into

the accompanying twentieth-century crises that characterized the economic and political development of that period.

The corporate history of BASF therefore promises more than only a glimpse into the functioning of an industrial organization that has held its own on the market since 1865. It reveals a good deal about the reasons for the extraordinary economic dynamics of the German empire and the enormous expansion of the world economy before World War I. It permits one to probe the origins and spread of the knowledge society, in which science and research-based innovation have become the key determinants of economic growth and social development. By the same token, BASF's history stands at the center of Germany's wartime economy during two world wars and highlights both its strengths and weaknesses.

BASF's history also includes the era of IG Farbenindustrie AG, the trust formed in the complex 1925 merger of the chief German manufacturers of chemicals, pharmaceuticals, and dyestuffs. It was regarded as a pillar of National Socialist arms policy and a key factor in the Nazi party's push for autarky after 1933. For the interval from 1925 to 1945, it is not a matter of seeing the story of IG Farben as a surrogate for BASF's discontinuous corporate history. Such substitution is impossible for the very fact that BASF did not exist as an actor in those years. The Upper Rhine works group that subsumed its core factories had neither a managing board nor any other legally relevant body to exercise discretionary authority within IG Farben. Moreover, BASF was split as a business unit because the corporate structure of IG Farben drew a sharp line between Ludwigshafen and Oppau, a boundary formed by two largely independent and, in some ways, even competing divisions. Instead, the idea is to reconstruct BASF's history within the greater context of the corporate group. The way in which the corporate culture of BASF emerged and developed through institutional competition within IG Farben, especially in light of the politicoeconomic circumstances after 1933, underscores that culture's persistence, vitality, and ability to survive.

But the foremost advantage of writing the history of IG Farben from the perspective of BASF is that the group's entanglements in the Nazi regime's arms policy and pursuit of autarky – specifically in the system of forced labor in Auschwitz – can be followed and understood more discerningly than hitherto possible. Without insight into the role of IG Farben in Ludwigshafen, Oppau, and Leuna, one cannot decipher fundamental driving forces of the Third Reich's economy. Paradoxically, this assessment also applies to a quite different episode of German history, the “economic miracle” after 1945, and not only because of the dual-use structure of chemical production. Just as it was the skills of IG Farben's Upper Rhine operating group that enabled the trust to support Germany's course of politicoeconomic autarky by technical means after 1933, so it was that BASF soon stood again in the front ranks of those who facilitated West Germany's startlingly quick return to the world market. BASF has since been among the transnational companies of

From New Industry to the New Economy

3

German origin whose efforts to succeed at the leading edge of economic and technological progress are paradigmatic for Germany's entry into the new economy of the twenty-first century.

To penetrate to the heart of BASF's corporate history, however, one must examine the way in which the company itself functions, must delve into its corporate governance, financial system, industrial relations, system of qualification, and relation to other companies in the same sector and to the economy at large. What is the structure of BASF's social system of production and how is it changing? This question is central in each of this book's four sections, which divide the presentation of BASF's corporate history into phases of development. The answers in the "Farben period" (1865–1900) are unlike those arrived at during the major syntheses (1900–1925) that molded BASF's high technical standard and technology-centered corporate culture. The answers during the IG Farben period and its aftermath (1925–1952) clearly differ from those given by the new BASF, which emerged in 1952–3 out of what was left of its operations in the IG Farben group. Equally important is the question about the decision-making processes involved. What were the bases, methods, and results that together constitute the strategic response the company makes to the development of its markets?

From the outset, we authors were aware of how difficult it would be to address issues pertaining to specific epochs and still keep the whole picture of BASF's corporate history in focus. We therefore agreed that the unifying element of our presentation would be the social system of production, of which corporate culture can be considered the overall expression. The rules and norms that shape how people think and behave in an organization – those strengths and weaknesses acutely affecting a company's success – are not created by some abstract biological process of organizational aging but rather mostly by incentives and rewards provided by the market. They also determine the latitude for pursuing entrepreneurial strategies and limit the discretionary freedom of top management. The separate eras in the history of BASF have each helped bring about and shape the organization's corporate culture in a specific way, yet that culture's abiding continuity allows the company to transcend such temporal boundaries.

BASF's interest in having independent historians analyze its corporate history ideally matched our desire to use BASF's history in order to answer pressing questions posed within the rapidly expanding field of corporate history. They go far beyond the interest in the Nazi period that the public has shown for some years now. The emergence of New Institutional Economics as one of the most dynamic schools in the discipline of economics has brought entrepreneurs and managers to acknowledge the significance of institutions as cornerstones of corporate culture and as foundations for their own scope of action. This perception is sharpening top management's cognizance of corporate history quite apart from anniversaries and memorials. History matters!

BASF not only funded the study of its corporate history, it also assisted in any other way it could. The work is therefore based on a broad range of sources. Of course, BASF's own archive was the primary source consulted. The organization granted our request for unrestricted access to all the material. It even released files that had not yet been catalogued, mainly the minutes of managing board meetings of BASF AG from 1953 to 1975, which furnish a complete record of the decision-making process behind the organization's corporate policies. For subsequent years, BASF applied the rules governing public archives, under which their documents remain closed for thirty years, even for research purposes. The company facilitated our work by providing the project with a competent and committed team of historians and archivists directed by Dr. Lothar Meinzer. We sincerely thank him and his colleagues in the archive: Dr. Susan Becker, Jutta Kissener, Dr. Christiane Pfanzen-Sponagel, Dr. Kristina Winzen, and Annette Wolpert. However, we authors alone are responsible for the results of the work. We state unmistakably that BASF is the subject of this study and was not itself involved in the scholarly investigation of its history. On the contrary, the company gave – and strictly honored – its express pledge not to influence the work of the authors and the editor. The present study is anything but self-aggrandizement on the part of BASF. To suspect otherwise would be a gross misunderstanding.

The authors and the editor are also indebted to those outside BASF who were involved in bringing about this work. We are grateful to Anne Stokes (Glasgow) and David Antal (Berlin) for providing the English translations of the contributions by Wolfgang von Hippel and Werner Abelshausen, respectively. I have enjoyed working with the staff at Cambridge University Press in New York, Dona Hightower Perkins read the manuscript, Michie Shaw managed the production, and Frank Smith gave the project his full support. At home, Matthias Band, Lars Heidemann, Christel Schwigon, and Frank Werner fought the battle of indexing while managing the files making for the corrections to various drafts of the manuscript. We express our sincere appreciation to all of them.

Bielefeld, May 2003

Werner Abelshausen