This outline of Germany's path to the postindustrial economy asks a good deal of its readers. It calls upon them to try and understand the world through a radically new economic worldview. The foil for explaining current economic interaction is not the familiar Industrial Revolution of the late eighteenth century, but rather what economist Douglass C. North calls the Second Economic Revolution, which closed the modern era at the end of the nineteenth century and inaugurated the period of nonmaterial production. Although the theoretical foundations of this paradigm have set sufficiently in the two decades since they were laid, studies substantiating these new insights with the empirical authority of historical analysis are still rare.

Germany lends itself particularly well to an inquiry into the implications of this fresh viewpoint's two meanings. For one thing, the new perspective compels one to redecipher the riddle of German economic history now that research has long rejected the notion that Germany took a "special path" to the modern age. For another, it provides a new angle from which the economic challenges of the present can be understood and placed in historical context. If divorced from this historical dimension, attempts to shape the institutions of the New Economy are bound to fail. Above all, however, Germany's economic history can demonstrate that the New Economy is accessible along very different paths, underscoring the significance that different economic cultures have for competition, especially on the globalized world market. Given the diversity of markets on which the economy's future is decided, the concept that there are "varieties of capitalism" seems to describe reality more aptly than does the rigid demand for "standard capitalism."

Some readers may be surprised that this study takes them on a long tour of European economic history, though it is only a short side trip back to the Middle Ages and early modern times. That excursion appears unusual. After all, the idea is to grasp a phenomenon that, like the New Economy, still lies almost on the edge of the future. But it is necessary to gaze into this "distant mirror" in order to seek out the powerful institutions that make it possible from today's global perspective to demarcate paths of economic development, pat-

terns of thought and behavior among collective actors, and the ground rules of economic life from one divergent economic culture to the next.

Not all institutions are so deeply rooted in history, however. The institutional framework still serving the German economy today emerged during the second German empire in the final quarter of the nineteenth century, about as long ago as the American structures, which also go back a hundred years. As argued in the present book, that period was the beginning of the German economy's entrance into the New Economy, whose hallmarks are market globalization and the primacy of scientific methods and theory in production processes. Of course, none of the organizational innovations distinguishing this new era draws directly on medieval or early modern models of commercial practice. Yet the German economy's propensity and capacity for integration of culturally endemic organizational principles such as autonomy, self-management, and the ability to cooperate into the practices of the new, postindustrial institutions can be understood only against the background of comparatively positive historical experience. This link is especially important because the New Industries, whose rise began before the turn of the previous century, operated on markets that handsomely rewarded precisely those social virtues. Hence, it is not enough to inform the reader of the causes, course, and impacts of the Second Economic Revolution in imperial Germany. In shaping this revolution, its two pioneers—Germany and the United States—relied heavily on their respective traditional arsenals of proven fundamental convictions.

Another major task of this study is to make out the essence of the German production regime. The German road into the economy of the twenty-first century is not a *Sonderweg*, not a special path. Its particular features and their many variations are characteristic of the path charted by numerous other countries. Most of what can be said of it pertains more or less to other European and Asian political economies, especially when they are seen in contrast to the American way of business, which seems to be on track to becoming the sole standard of best global economic practice. Using the United States as a benchmark is nothing new. The "American challenge" has been a common motif repeatedly igniting the imaginations of German and other European observers ever since the astute analyses by Alexis de Tocqueville and Friedrich List. More than a hundred years of transatlantic trade wars, economic penetration, and cultural competition have provided plenty of sparks for that process. The face-off between the American and German economic cultures today reflects an altogether ideal-type divergence.

Nevertheless, the starting positions of these two political economies in their race into the postindustrial age differ little. In the eighteenth and early nineteenth centuries, both countries were latecomers to industrialization. Almost simultaneously, they experienced modernism's breakthrough as the dominant order of business and society and ultimately set off for new shores along different routes in the late nineteenth century. In Germany and the

United States, the protagonists of the new epoch were the new industries, such as chemicals, machine manufacturing, automotive manufacturing, and electrical engineering. They all drew on science as a main factor of production, looked to the world market, and imposed revolutionary new rules on economic life. The principles underlying the success of the new industries have meanwhile permeated and shaped almost the entire economy in both countries, creating in each a "new economy" (hereafter New Economy when it refers to Germany), with a thrust of its own. These frameworks aim at quite diverse markets on which their respective institutional and material cost advantages can play out. The different requirements of the leading production methods in the two countries—diversified quality production in Germany and standardized mass production in the United States—therefore call for comparative analysis. Until the mid-1970s, it was mostly Fordism's triumphant global advance that posed the American challenge in the developmental phase of Germany's type of New Economy.

These matters notwithstanding, the striking thing throughout the twentieth century is the high endurance of the organizational principles and rules followed by the actors. The question about what gave rise to them thus also deserves keen attention in this study. Unlike the political development of Germany, the country's road into its New Economy was surprisingly straight and uninterrupted. The great political discontinuities of the twentieth century neither redirected nor appreciably obstructed it. From time to time, however, they did blur its contours to the point of unrecognizability and created special conditions of growth that fostered strategic mistakes in economic policy. Examples are the anachronisms that shaped economic development for long periods of the twentieth century in the wake of the two world wars and the attempts to cope with their legacy. To this day their consequences seem to complicate clear decision-making on the direction of economic policy. The most important thing that German policy currently needs is therefore a clear picture of the country's economic portfolio. What the economy can and cannot do is less a function of heroic decisions by policy-makers or the economic elites than of abiding organizational and market experience. That experience is the corporate, or economic, culture that delineates the latitudes for promising strategies in companies and economic policy.

The link between economic activity and culture is not self-evident. Nor is its nature illuminated by a diffuse concept of culture like that ushered in by the culturalist shift in the humanities—the human, or spiritual sciences. This link exists, however, and its intensity has tended to increase in the course of economic development. Economic activity and culture come from the same root. Without the human being's basic economic condition, that is, without the incentive to husband scarce resources, culture as the quintessence of the human race's emancipation from its natural state would be all but inconceivable. The very affinity between the concepts of culture and economic activity

(including agriculture) supports this stance. Economics and technology quite obviously represent key spheres of culture, be it as discrete artefacts of homo faber or as settings that humans have created for living because nature itself does not provide them. The "mind as a form of organization" (Arnold Gehlen) that creates the institutional framework for continuity in human thinking and action and that thus guarantees societal life also suffuses the economy, which is ruled by its own laws. When resources are scarce, economic activity must always center on costs and possible alternatives for satisfying human needs. Whereas economists in modern times, as in traditional agrarian society, concentrated on the costs of the social exchange of matter (Karl Marx), attention in the twentieth century settled increasingly on the importance of comparative institutional cost advantages. Gaining them, however, requires social achievements that have "cultural roots" in a sense narrower than that of striving for material cost advantages in the social exchange of matter—which was the chief theme in David Ricardo's "law of comparative costs" and classical political economics in the early nineteenth century.

This narrower cultural prerequisite for acquiring comparative "nonmaterial" cost advantages includes the ability to create effective institutions that encourage a high degree of cooperation and, hence, a high level of trusting, cost-reducing cooperation in the economy. Institutions as voluntary self-restrictions on personal freedom lead to thinking, action, conventions, "rules of the game," and informal and legal norms whose incentives and acceptance do not lie exclusively in economic advantages or constraints. They belong to that general act of interpreting and making sense of human existence and coexistence whose various manifestations differentiate long-standing "cultural groups" from each other. In this narrower understanding, culture creates not only "meaning" but also "utility" because stability and trust permit highly developed economic transactions at low cost.

Scholarly interest in ferreting out this connection flagged at times in the twentieth century. In the historical school of German political economics, study of economics from this cultural point of view was still taken for granted. Research therefore revolved around the question of the meaning and origin of institutions and the conditions governing change in them. When it was a matter of penetrating to the core of economic analysis, all that counted in the eyes of this school's most prominent figures was decipherment of the cultural code behind the economic facts. Mainstream thinking in economics a century ago still embraced the conviction that the state of the art does not advance by means of studies on the nature of commodities or capital but rather through inquiry into the causes of human difference and of the institutions that govern and influence the process of production and the distribution of goods.

If most economists nevertheless preferred to assume the prosaic nature of commodities and capital as the star of institutional economics rapidly set, it was because the institutional context in which economic activity could develop

had remained relatively stable since the turn of the twentieth century. Further heed seemed unnecessary. This perception has changed dramatically since the 1990s. Institutional issues have recovered their place in university seminars, the management staffs of companies and associations, and government think tanks, bringing the cultural perspective of economic thinking right along. The expression "corporate culture" is perennially in danger of degenerating into a weasel word or, at best, of describing ephemeral and peripheral phenomena such as corporate design or corporate identity. As the following comparative analysis makes clear, however, corporate culture and economic culture have absolutely nothing in common with that interpretation. On the contrary, these two terms stand for the whole or the parts of the unmistakable institutional substance constituting the most important areas of the corporate and social system of production: corporate governance, the financial system, industrial relations, and so forth.

One reason for this renaissance of cultural factors in the calculus of current production functions lies in conflicts of the kind at the heart of the following study. The systematic character of this culture clash dictates against locating its main arenas in the world of daily politics. If Germany and the United States are once again redefining their mutual relationship, then it is the interests themselves that stand at the center of tactical and strategic policy considerations, not the cultural embedding of those interests, although it, too, is capable of eventually shaping national interests.

The present study of the escalating culture clash between different ways of acting and thinking in the world economy developed from my Pott lecture on Technology, Business, and Culture and draws on ingredients at very different stages of maturation. New ideas inspired by the question addressed by that lecture in Essen, Germany, stand side by side with arguments and facts that have already survived their scratch test in the academic community. Surprisingly, the state of historical research on the origins and development of the American production regime does not yet permit a complete comparison between the avenues of development taken by the two pioneers of the New Economy, the United States and Germany. The following study must therefore focus primarily on Germany's road, with the American development providing the background. The reader may judge whether the synthesis of my research has succeeded and whether the outline of the German path to the New Economy is suitable for answering a sufficient number of open questions. It goes without saying that a limited study, such as this one, cannot conclusively resolve the issues examined in the following book. Instead, the intention is to increase the degree to which they, and others, become integrated into economic history as a research paradigm.

This work owes its existence primarily to Jörn Rüsen. It was through his kind and gentle persistence that my manuscript for the Pott lecture turned into the book it now is. The Alfried Krupp von Bohlen and Halbach Foundation in

Essen enabled me to conduct research on the rise of the American production regime and continues to support that project. I am indebted to Matthias Band, Lars Heidemann, Petra-Monika Jander, J. Wesley Löwen, Christel Schwigon, and Frank Werner for their research assistance and technical help in producing the manuscript. I am very grateful to David Antal (Berlin) for his perceptive, faithful, and, above all, authoritative English translation of the German manuscript. The unwavering support of the publisher, Marion Berghahn, and the careful and professional work by the copyeditor, Catherine Kirby, and the production manager, Michael Dempsey, have been invaluable assets in shepherding the manuscript through to publication.

I sincerely thank every one of you.

Bielefeld, March 2005

W.A.

## **Notes**

1 Francis Fukuyama, *Trust: The Social Virtues and the Creation of Prosperity* (New York: The Free Press, 1993), pp. 27–28.