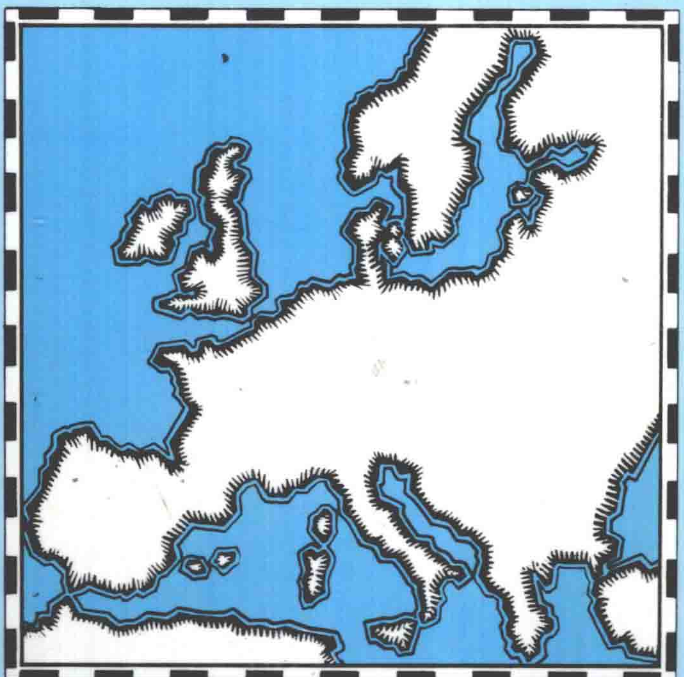
PATTERNS OF EUROPEAN INDUSTRIALIZATION

The Nineteenth Century



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ROUTLEDGE

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The nineteenth century

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Preface

This book is a result of our mutual interest in the economic history of modern Europe and of our association as scholars, which dates from the late 1960s when we were both members of Alexander Gerschenkron's Economic History Workshop at Harvard. At that time US economic history was receiving new intellectual stimulus from the so-called cliometric revolution of which Gerschenkron was a leading instigator through the support he gave to his many students. He also instilled in them an abiding interest in Europe through both the depth of his knowledge and his 'approach', as he liked to call it, to Europe's modern economic history.

In the years that have passed since the 1960s, the application of economic theory and quantitative analysis to economic history has made rapid strides, and Gerschenkron's approach – which brought the diverse economic histories of the various European countries into a unified story of industrialization and modern economic growth – has received many challenges. But a new synthesis of Europe's experience with industrialization has not yet emerged.

Our objective in planning this volume was to evaluate the current state of Europe's economic historiography in order to see whether the elements of a new synthesis could be detected and advanced. With that objective in mind, and because Gerschenkron's approach provided the leading, if dated, example of the desideratum we and others are seeking, his work quite naturally lent itself as a framework around which to organize our papers and deliberations. This book, however, is not intended to be a study of Gerschenkron's approach and how it has fared over the decades since he first advanced it. Rather, the aim of these essays is to stress the intellectual utility of an approach – any approach – which can bring a certain unity to diverse economic experiences and to note the considerable problems that arise in the effort to construct such an approach.

As it is often the case with projects involving a relatively large number of scholars, we could not proceed without a conference for the discussion of the first drafts of the papers. The Fondazione Adriano Olivetti sponsored a meeting which was held at Bellagio (Italy) during the week of October 3–7, 1988. We enjoyed the invaluable hospitality of the Rockefeller Foundation at Villa Serbelloni. Additional support was provided by Banca Commerciale Italiana. The

Conference was particularly successful thanks to the quality of the participants – both authors and discussants – and to the special attention devoted to us by our hosts, the late Roberto Celli and his wife. Susan Garfield, manager of the Foundation's Bellagio Center Office in New York was ever helpful as was Geraldine Ludbrook who helped both in organizing the meeting and in the first editing of some of the papers. For editorial help we are also indebted to Alison Walters of Routledge, Harriet Stewart-Jones for copy editing, and Beth Scott for indexing. We received encouragement and support from our colleague Giovanni Maggia to whom we are particularly grateful.

Richard Sylla and Gianni Toniolo

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Introduction: patterns of European industrialization during the nineteenth century

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EUROPE, NOW AND THEN

While these lines are being written, Europe is changing at a breathtaking speed. In the East, the revolutions of 1989 have taken everybody by surprise, unleashing enormous hopes for freedom and economic development. At the same time, by upsetting well-established equilibria, they have produced great uncertainty regarding the future and have created the potential for new instability in the Old Continent. Meanwhile, Western Europe is not only putting the finishing touches to the single European market to meet the 1992 deadline but also embarking on fresh negotiations for political unity among the Twelve.

Experts in social and political sciences have been surprised by the speed at which reality has surpassed their most optimistic forecasts. It is therefore natural for the economic historian to reach for the tools of his or her trade in trying to make sense of the overwhelming unfolding of history that, thanks to live television broadcasting, is taking place literally under one's eyes.

Needless to say, such epochal upheavals defy any attempt at drawing 'lessons from history'. For sure, we know only that the 'long-postwar' is over. The political and economic setting in which the future generations of Europeans are likely to live will be different from that in which we grew up. It is likely that similarities will be found more with previous periods in history than with the most recent one. On the one hand, some aspects of the pre-1914 '*belle époque*' are likely to revive: free movement of goods, capital and labour in a context of fixed exchange rates. On the other hand, the collapse of a large empire and the re-emergence of nationalism within small, newly-independent states will re-create some features of Europe as it emerged from the Treaty of Versailles, which put an end to the First World War. Which of these two contrasting forces will eventually prevail? To a considerable extent, the future of Europe will depend on the answer to this question.

For most of the Eastern European countries economic development will be the crucial issue for many years to come. The survival of democracy is to a large extent linked to delivering both bread and freedom. Potential for growth is difficult to assess since recent history does not offer a fruitful insight for the understanding of the problems connected with the process of transition to a market economy. The experience of industrialization during the nineteenth century, on the other hand, may prove to be of some interest from that particular point of view. Convinced as we are that the study of economic history is interesting *per se*, we cannot escape the feeling that in this particular moment it may also be useful for the understanding of some aspects of our present and that it may help in framing interesting questions about future development patterns.

During the nineteenth century, many of the ancient walls that constrained Europe two centuries ago – feudal vestiges, poverty, ignorance, primitive technologies and organizations, limited capital and finance, destructive regional and national rivalries, among others – came tumbling down as the processes of industrialization and modern economic growth spread across the continent. The '*ancien régimes*' came slowly to an end everywhere: autocracy and mercantilism were replaced by democracy and market economy. In the sweep of human history, it was a century of hitherto unknown economic prosperity and progress in science and technology. Kuznets's 'epochal innovation' – modern economic growth – gained a momentum that proved to be irreversible. Industrialization, a synonym for modern economic growth that focuses on its essential ingredient, changed forever the ways in which people lived and worked, usually for the better but not without attendant political, social, and ideological strains.

Two strains – nationalism and class conflict – bequeathed to the twentieth century a legacy of wars, revolutions, depressions and, eventually, an iron curtain that divided Europe until recent days. Nationalism and class conflict drew energy from industrialization and possibly contributed to its buoyancy. Often in the nineteenth century they were so powerful that they obscured the uniformities of the economic process that was transforming Europe. Since industrialization came to European countries and regions at different times, it tended to accentuate the differences that were already present in languages, customs, politics, religions, cultures, and the like. In time, however, the economic transformation that spread across Europe would reduce backwardness and narrow the very economic differences that it at first accentuated between countries, regions and classes. But this longer-term perspective on the transformation was not so evident to Europeans in the nineteenth century, or even to those who witnessed the political and economic disasters of the first half of the twentieth century.

Now, as the end of the twentieth century nears, those who seek to understand the current problems and the future potential of the European economy would do well to understand its past. As we have said, there are similarities between some of the challenges Europe faces today and those it had to meet 70 or 150 years ago. In economic life – our concern in this book – there are not only different degrees of 'relative backwardness' but different obstacles on the road to further development as well. This is true both within the European Community and between the countries of Western and Eastern Europe. In the years and decades ahead, these economic differences will condition the flows of products, services and productive resources within Europe and the rest of the world, just as they did in the past. Differing levels of development will continue to create tensions between the 'haves' and the 'have nots', between the advanced and the backward countries and regions. Within nations as well as among countries moving along the road of full integration, there will be disagreement concerning economic goals and policies. These will come as no surprise to one who knows Europe's economic past.

ALEXANDER GERSCHENKRON AND HIS SYNTHESIS

The twentieth century's most influential interpretation of European industrialization in the nineteenth century and its implications for subsequent history is that of the late Alexander Gerschenkron (Gerschenkron 1962, 1968, 1970, 1977). Gerschenkron's conception of Europe as an economic entity which, despite all its national and regional differences, led the world into a new era of economic transformation, was both bold and fruitful. His interpretation and its influence are the motivations for this book; they are represented throughout the chapters that follow. The chapters are organized into two parts which reflect the main categories of Gerschenkron's thought: (1) the key factors that propelled industrialization, (2) the nation states that were the settings for industrialization.

Why has Gerschenkron's analysis of European industrialization proven so influential? More than other scholars, Gerschenkron comprehended the varieties of the European experience with industrialization while also understanding that it was a European experience and not merely a variety of experiences. Others, especially economists, viewed industrialization as a uniform process of modernization that had unfolded in some places and would eventually unfold everywhere. Still others, especially historians, felt that each country or region was unique in its history and economic path, which might or might not have led to industrialization. In this view, attempts to impose some notion of an orderly economic process on the varieties of unique historical circumstances were doomed to failure. Gerschenkron understood and appreciated both points of view and strove to reconcile them in his work. He was not entirely successful, as will become evident in the studies published here, but he was successful enough not only to have made a lasting impact as an economic historian but to have stimulated a flow of very influential research in the field.

To understand and appreciate Gerschenkron's work, it is helpful to know some facts about his life (Rosovsky 1979; Tilly 1986). His experiences in life steeped him in many cultures and traditions. He was born in 1904 at Odessa in the Russian Empire. In 1920, after the Russian revolution, he migrated with his family and settled in Austria. He studied economics and political science at the University of Vienna, receiving his doctoral degree in 1928. For the next ten years he held a variety of business, teaching and research posts in Austria. The deteriorating situation in central Europe in the 1930s led Gerschenkron, now with a family of his own, to emigrate to the United States in 1938. For the next six years he taught and carried on research at the University of California in

Berkeley. In 1944, he became a member of the staff of the Board of Governors of the Federal Reserve System. In 1948, he joined the Harvard faculty, in the Economics Department, where he specialized in economic history and Soviet studies over the course of the next three decades. Gerschenkron died in Cambridge, Massachusetts, in October 1978.

Before Gerschenkron, a fashionable view was that economic history in general and industrialization in particular could be best analysed in terms of stages of economic growth through which every society passed and in which every society could locate itself at a given point in historical time. These ideas, originated by the German historical school, were reformulated and made popular by W.W. Rostow's *The Stages of Economic Growth – A non-Communist Manifesto* (1961), which appeared in the middle of Gerschenkron's Harvard career and became quite influential in scholarly discussions. Gerschenkron, in his writings and his teaching, reacted negatively to the uniform paths of development and rigid determinism that stage analysts imposed on economic history, especially their notion – typified by Rostow in one of his stages – that prerequisites had to emerge before a society would industrialize or, in general, move from one stage to another.[1] But as an analytical economist, Gerschenkron did not want to go to the opposite extreme, espoused by traditional historians, that each case of industrialization or economic development was unique, with no lessons to be learned from studying other cases, which – in this view – were also unique. Gerschenkron rejected both the determinism of stage analysts and the emphasis on uniqueness of traditional historians. Instead, he fashioned an approach to modern European economic history that emphasized industrialization as a process exhibiting many uniformities across societies, but also one that demonstrated many deviations from the 'necessary prerequisites' of industrialization.

Gerschenkron shared an understanding and appreciation of the uniformities of the industrialization process with his friend and Harvard colleague, Simon Kuznets, who called the process 'modern economic growth' and carefully documented its characteristic uniformities from the historical statistics of fifteen nations, including ten in Europe (Kuznets 1966). Kuznets, like Gerschenkron, also knew that there was much variability and diversity in modern economic growth across countries, but, unlike Gerschenkron, he regarded them as elements of disorder in the orderly uniformities of modern economic growth. As a scientific economist, Kuznets thought that explanations of variability and diversity in the growth process 'must be ad hoc and incomplete, not so much because of insufficient data, but essentially because we are dealing with experimentally uncontrolled situations in which the variety of possible causative factors cannot be exhaustively tested' (Kuznets 1966: 1).

The work of these two great scholars and friends might be contrasted by saying that Gerschenkron, the economic historian, was fascinated by and wanted to bring order to the elements of historical variability and diversity in economic growth that Kuznets, the statistical economist, regarded as rather intractable.

The difference in attitude and interest is still evident in discussions between economists and economic historians.

Gerschenkron's principal contribution to economic historical scholarship was to organize the deviations into coherent patterns built around his concept of 'relative economic backwardness', which referred to economic conditions in a particular society at the time it began to industrialize. Thus, when it embarked on industrialization in the mid-nineteenth century, Germany was more backward than Britain had been when it experienced the first industrial revolution. And Russia, when it began to industrialize at the end of the nineteenth century, was more backward than Germany had been half a century earlier.

From his concept of economic backwardness and his detailed knowledge of the histories of European nations, Gerschenkron derived a number of hypotheses about the patterns of European industrialization. Among them are:

1 The more backward the country, the more rapid will be its industrialization, i.e. the faster will be its rate of growth of industrial production.
2 The more backward the country, the greater will be its stress on producer (capital) goods as compared with consumer goods.
3 The more backward the country, the larger will be the typical scale of plant and firm, and the greater will be the emphasis on latest, up-to-date technology.
4 The more backward the country, the greater will be the pressure on the consumption levels of the population; consumption levels will be squeezed to promote a high rate of capital formation.
5 The more backward the country, the less will be the role of the agricultural sector as a market for industrial goods and as a source of rising productivity in its own right.
6 The more backward the country, the more active will be the role of special institutional factors – great banks as in Germany, the government ministry of finance as in Russia – in supplying capital and promoting industrialization.
7 The more backward the country, the more important will be ideologies of industrialization in the shaping of policies and events.

During the years that have elapsed since Gerschenkron formulated his hypotheses about European industrialization, many scholars have questioned and even rejected important elements of his work. But no analytical insights or grand syntheses comparable to Gerschenkron's have come in the wake of the critical work his seminal ideas stimulated. Scholars and teachers of European economic history have been left with little more than discussions of amorphous long-run trends, tiny regional patterns, and individual 'causes' that inevitably are shown to be unimportant. On the whole, the subject of European industrialization seems to have become more precise but at the same time less intellectually appealing, at least for the younger generation of students from whom will come tomorrow's scholars.

A look at the timing and character of industrialization as it spread across Europe in the nineteenth-century – what we now know, or think we know – will serve to indicate how recent research has modified some of Gerschenkron's characterizations, and to introduce the reader to the chapters that follow. Gerschenkron studied Europe's industrialization, he posed questions about it, and, using the evidence available to him, he provided answers to those questions. We now know that his answers often must be modified in the light of more recent findings. It is also often the case that we have these findings because of the questions Gerschenkron posed and the captivating attractiveness of his answers. That is the essence of what makes a scholar influential.

RELATIVE BACKWARDNESS IN NINETEENTH-CENTURY EUROPE

According to Gerschenkron, relative backwardness – however measured – is a powerful explanatory variable of such characteristics of industrial development as timing, growth rates and structural change. Gerschenkron's definition of backwardness is not based on any one indicator such as per capita income. Of his two souls, it was that of the historian rather than of the economist that surfaced when he defined and discussed economic backwardness. In his university lectures, he hinted that no specific definition was needed, since any knowledgeable economic historian would be able to rank European countries in their order of relative backwardness at any chosen moment during the nineteenth century. The variables to be considered, however, should be those most relevant for the emergence of preconditions for subsequent economic development. Among such variables he therefore included savings ratios, literacy, some technology-related indicators (e.g. patents), per capita social overhead capital, and even less measurable ones such as ideology.

Gerschenkron's overall appraisal of the various degrees of backwardness of the individual European countries around the middle of the nineteenth century was simple and convincing. He seemed to argue that travelling from the northwest of Europe to the east and southeast, one would be met by increasing degrees of economic backwardness. Thus, for instance, within Germany, Prussia was more backward than the Rhineland, within the Habsburg Empire Hungary was more backward than Austria, and in the Italian Peninsula the Kingdom of the Two Sicilies lagged behind Piedmont and Lombardy. Europe was made up of a number of independent countries that had in common a number of economic, political and cultural factors but that at the same time were made different not only by language and local traditions but, much more fundamentally, by their relative degrees of economic backwardness.

Such a broad concept of backwardness cannot be fitted into standard procedures of empirical testing. Measures based on some proxies, however, confirm Gerschenkron's view of relative backwardness within nineteenth-century Europe. Barsby (1969) provided a first quantitative assessment. In more recent years various attempts have been made at estimating GNP per capita in various

European countries during the nineteenth century. Such measures can be taken only as rough indicators of overall orders or magnitude and they may be used in comparative analysis only with great caution given the complexity of the well-known index number problem implicit in such bold attempts. Moreover, and not surprisingly, different authors by using different sources and methodologies arrive at quite dissimilar results. Chapters 7 and 10 discuss the issue in more detail. What matters here is simply to note that Gerschenkron's ranking of countries in terms of relative backwardness around 1850 is basically confirmed by whatever comparisons are possible from the historical national account statistics. Moreover, those statistics convey the impression that differences in the degree of backwardness (when measured in terms of GNP per head) were by no means trivial.

Empirical economists have established a link between the level of per capita income and a number of economic variables that describe the 'structure' of an economy. The pioneer in this field was Colin Clark, followed by Kuznets and Abramowitz, and by the econometrically more sophisticated work of Chenery and his team. These scholars established that increasing levels of per capita income are associated with changes in such variables as the agricultural labour force over total labour force, the sectoral composition of industrial output and foreign trade, savings ratios and capital accumulation, and the quantity and quality of financial assets over total wealth (Goldsmith 1969). In such studies, therefore, the level of per capita income is an 'explanatory' variable for a number of qualitative features of the economy. The 'explanation', of course, is only statistical, as is the case in general with regression analysis, and *per se* it does not say anything about causality.

Gerschenkron's broad definition of backwardness was meant to supply an explanatory variable in the literal meaning of the word. A backward country not only was less endowed with such factors of production as skilled labour, up-to-date technology, infrastructure and financial capital but was likely to be burdened with a ruling class whose very interests would be at least partially jeopardized by successful industrialization. Such a country was likely to encounter many obstacles on its way to industrial progress. Moreover, the majority of its ruling class would not perceive the advantages of such progress. In these circumstances, market forces alone would be rather slow in generating the conditions for rapid economic growth. A short-cut along the road of industrialization could be taken if those among the ruling class who could see the advantages of taking that road could also get hold of a tool capable of surmounting the major obstacles to industrialization. These tools might be a financial innovation such as the 'mixed bank' or the very power of the state, according to the country's degree of backwardness. They are briefly discussed later in this introduction and in more detail in Chapters 2–5.