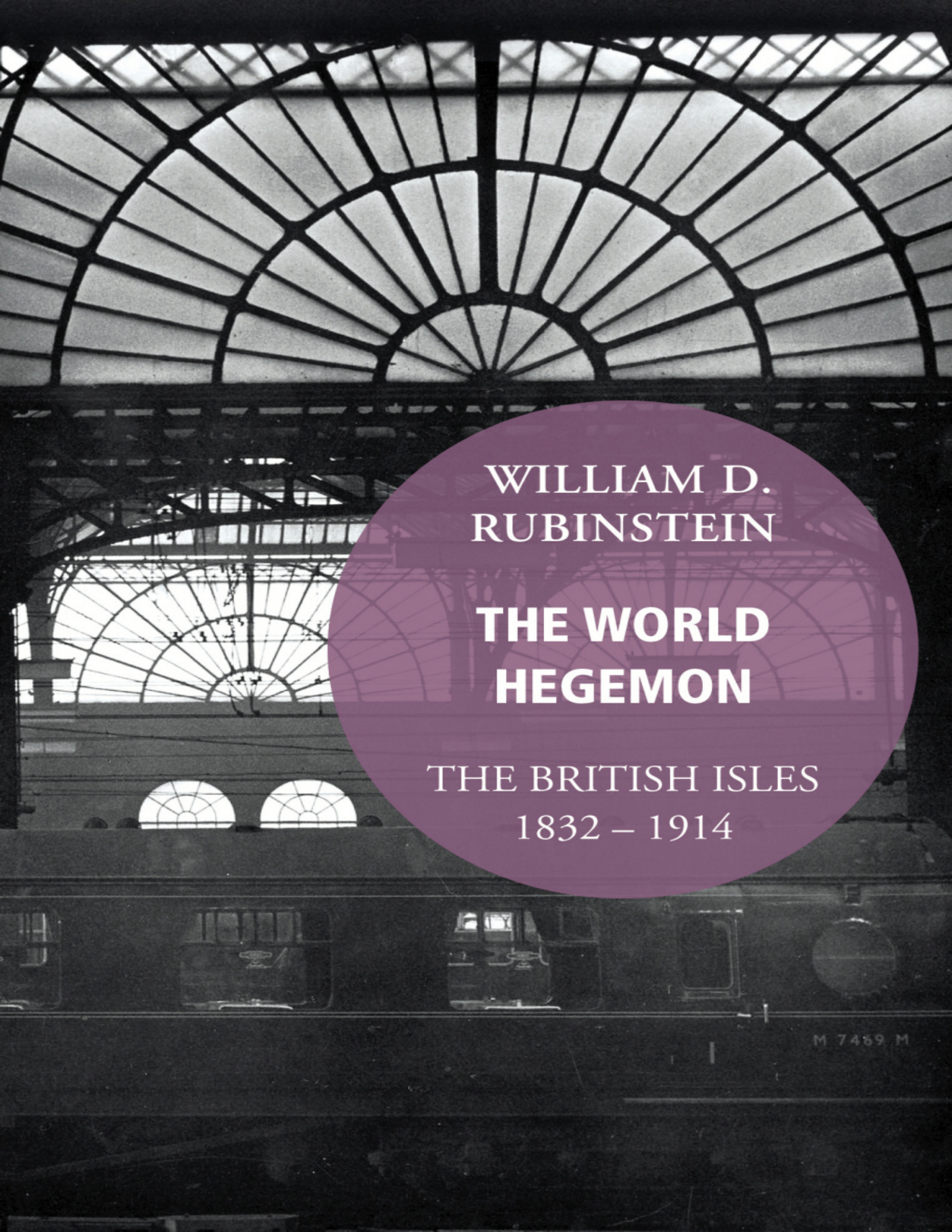




WILLIAM D.
RUBINSTEIN

**THE WORLD
HEGEMON**

THE BRITISH ISLES
1832 – 1914

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About the Book

'In many respects, the nineteenth century belonged to Britain.'

For much of the period between 1800 and 1914 Britain was at the height of its power and influence, one of the world's superpowers, if not its greatest.

It was the golden Victorian age – one of prosperity and transformation. Britannia ruled the waves, and through its achievements and influence, it was a leader for political, economic and cultural change. Its cities and population expanded rapidly, industrialisation and the advent of the steam railway revolutionised trade and the economy. The rise of the middle classes changed the social structure forever.

Politics was dominated by debate on Irish Home Rule, Britain escaped revolution by timely political reform, and the delicate balance of power in Europe was assiduously protected, despite minor wars in outposts of the Empire. This century clearly saw seismic change, but what did this mean to the nation? Just a few decades later, most of what Victorian Britain held dear would be shattered by the aftermath of the looming Great War.

Tracing the political, social and economic cultures of the period, as well as what might have been, William D. Rubinstein seeks to uncover how this fascinating century of change impacted the British people and their sense of identity.

About the Author

William D. Rubinstein is an adjunct professor at Monash University in Melbourne, Australia. He was previously Professor of History at the University of Wales-Aberystwyth. He has written *Men of Property: The Very Wealthy in Britain since the Industrial Revolution*; *Britain's Century: Political and Social History 1815-1995*; and many other works. He is a Fellow of the Australian Academy of the Humanities, of the Australian Academy of the Social Sciences, and of the Royal Historical Society.

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WILLIAM D. RUBINSTEIN

The World Hegemon

The British Isles 1832–1914

VINTAGE

Chapter One

Material Cultures

In many respects, the nineteenth century belonged to Britain, just as – in many respects – the twentieth century belonged to the United States. For most of the period between 1800 and 1914, Britain was at the zenith of its power and influence, and, certainly prior to the last decades of the century, was universally seen as one of the world's superpowers, perhaps the greatest superpower. It is a cliché that every period is a time of transition and change, but certainly this was the case in the nineteenth century, when Britain experienced an industrial revolution, was transformed from a largely rural to a largely urban society, and formally became the head of a mighty empire. Yet, to a surprising extent, much about Britain did not change dramatically. In contrast to virtually all the other European nations its formal governmental structure was almost precisely the same in 1914 as it was a century earlier. Britain escaped revolution, invasion, internal turmoil and dictatorship, despite the changes it experienced. This chapter considers the major dimensions of British change and stability during the nineteenth century.

The demographic background and its evolution

Of all the changes which came over Britain during the nineteenth century, possibly none was as dramatic, or easier to quantify, than the enormous growth in population

and the increase in size of, in particular, Britain's cities. Britain recorded its first national census in 1801. Every ten years thereafter censuses have been held and from them we have an accurate account of British population and change. (The first Irish census was held in 1821. No census was taken in 1941, during the Second World War.) While no official figures exist prior to 1801, it is generally estimated that the population of England and Wales totalled about 3 million in 1600, and rose to about 5.5 million in 1700 and to about 6.5 million in 1750, with Scotland's population about 1.3 million in 1755 and Ireland having a population of about 2.7 million in 1700, 3.2 million in 1750 and 5 million in 1801 – in other words, the total population of what would become known as the United Kingdom probably totalled about 10.8 million in 1750. The extraordinary rate of growth of Britain's population during the nineteenth century can be seen from these statistics:

Population of the United Kingdom and its components, 1801–1911 (000s)

	1801	1831	1851	1881	1901	1911
England	8,352	13,090	16,922	25,974	30,813	34,109
Wales	541	807	1,006	1,361	1,715	2,027
Scotland	1,608	2,364	2,889	3,736	4,272	4,751
Ireland	5,216	7,767	6,552	5,175	4,459	4,381
United Kingdom	15,717	24,028	27,369	34,885	41,259	45,268
Percent of total						
in England	53	54	62	74	75	75

During the half-century from 1750 to 1801, the population of Britain and Ireland probably increased by about 44 per cent. Over the course of the next century, however, it rose by 166 per cent, a rate of increase certainly without any previous parallel in history. The population of England more than tripled during the nineteenth century. Britain's population explosion, moreover, occurred alongside

massive and unprecedented emigration overseas, chiefly to North America and other areas of the white empire such as Australia. Without this emigration, Britain's overall population growth would have been even greater.

While England, Scotland and Wales grew significantly during the nineteenth century, it is striking that, in complete contrast, the population of Ireland actually declined considerably. Ireland's population reached a peak of about 8.5 million in the mid-1840s, before being struck by the great potato famine of 1845–51, probably the greatest demographic catastrophe in any European country between the Thirty Years War of the seventeenth century and the First World War. In 1845, a fungal potato blight destroyed the majority of the single crop on which much of rural western Ireland depended for its sustenance. Starvation and disease, and an arguably inept British government response, meant that about 1.1 million people died in the famine, while no fewer than 2.1 million Irishmen emigrated in the decade 1845–55 (more than one quarter of the total Irish population), creating great Irish Catholic diasporas in many cities in England and Scotland, and powerful communities in the United States, Australia and elsewhere. Although anti-English feeling was long ingrained, the Irish famine was one of the most important causes of the lasting sense of hostility and grievance felt by nationalist-minded Irish Catholics towards the British government.

Elsewhere in Britain, however, there was uninterrupted population growth. The total increase in England (369 per cent) was greater than that in Scotland (266 per cent) or Wales (317 per cent). The most basic question is what caused this enormous and unprecedented increase. While this cannot be answered with precision, many historians would probably suggest that there was a lowering in the age of marriage after the mid-eighteenth century, as opportunities increased in the wake of economic growth.

This lowering in the age of marriage (illegitimacies represented only a small percentage of births) enabled more children to be born into each family. The reasons for this decline in the age of marriage are controversial, but might revolve around wider social and geographical changes in society such as a shift towards greater urbanisation. Particularly during the period 1800–70, large families were the rule, even among the middle classes. As well, it would also appear that the incidence of virulent diseases also declined compared with earlier centuries. Inoculation and, later, vaccination for smallpox (introduced by Edward Jenner in 1796) certainly resulted in a decrease in the incidence of this notorious killer, while the plague, the scourge of Europe's population down the ages, failed to appear in its old form after about 1727, possibly because the brown rat replaced the plague-ridden black rat. Nevertheless, one should not exaggerate how healthy Britain had become. In 1860, about 15 per cent of infants died before their first birthday, while death by such infectious diseases as tuberculosis, typhoid and scarlet fever were still normal events.

In the last decades of the nineteenth century, the birth rate began to decline, a phenomenon first observed among the English middle classes from about 1870. The birth rate remained marginally higher in Scotland than in England and Wales, and remained higher in England and Wales than in Ireland, where the overall population continued to decline, and many young men and women emigrated overseas. This decline in the birth rate was accompanied by an even sharper decline in the death rate, especially among children, meaning that it became more likely that some children would survive into adulthood even among smaller families. This process, of smaller families becoming more general, is known as the 'demographic transition', and was accelerated among middle-class (especially professional) families by the steep costs of educating sons at fee-paying

schools and universities. By the late nineteenth century, late marriages became the rule, augmented in the twentieth century by contraception. By the 1930s, the British birth rate was less than one half of what it had been in the mid-nineteenth century.

The other major factors in population change are emigration and immigration. The nineteenth century was the era, par excellence, of massive European migration overseas, especially to the United States and, in the British case, to areas of new settlement in the white empire such as Canada and Australia. Comprehensive statistics exist only from the mid-nineteenth century, and these are startling in their scale. In 1853, the first year when official statistics are available, 278,000 British people emigrated overseas, about 1 per cent of the population, of whom 191,000 went to the United States. About 5–10 per cent of the British population emigrated overseas in most decades of the nineteenth century, extraordinary percentages. While disproportionate numbers of these were impoverished Irishmen, emigrants came from all ranks on the social scale. Emigration overseas has often been seen as a ‘safety valve’ to relieve potential discontent at home, with tens of thousands of possible troublemakers, even would-be revolutionaries, moving out of Britain each year. Many did well in their new homes and, paradoxically, often eventually became conservatives and empire super-patriots. The worldwide network of empire loyalty which Britain had built up by the time of the First World War was largely founded on just such successful émigrés. Immigration into Britain from Europe and elsewhere always existed, but, during the nineteenth century, was hardly noticed except in the last two decades when about 150,000 eastern European Jews escaped poverty and oppression by migrating to Britain, chiefly to London’s East End. Immigrant entrepreneurs, intellectuals and political refugees were, however, a notable part of the British scene; until 1905,

Britain had no barriers of any kind to immigration, and anyone could come. By far the largest number of settlers in Great Britain, however, were impoverished Irish Catholics – who, of course, were British subjects, not foreigners.

Just as significant as the sheer growth in Britain's population was the enormous expansion in the size of Britain's cities, and the changes in the nature of British urban demography which occurred as a result of population growth and industrialisation. Down the ages, Britain contained a city which was vastly greater in size than any other, namely London, the capital. Many of these were, officially, the administrative centres of Britain's counties, while a few of the largest – Bristol, Liverpool, Manchester – were not local administrative centres but commercial or industrial centres. At the beginning of the nineteenth century, the gap in size between London and Britain's other main cities was extraordinary, while all of Britain's other cities were surprisingly small. In 1801, the Greater London metropolitan area had a population of 1,117,000.

Remarkably, not a single other city in Britain had a population of more than about 83,000, the six next largest being Edinburgh (83,000), Liverpool (82,000), Glasgow (77,000), Manchester (75,000), Birmingham (71,000) and Bristol (61,000). Only a handful of other cities had a population which exceeded 40,000. In Ireland, there were no good population statistics before 1821. In that year, the population of Dublin was about 336,000, while the population of Belfast was only about 35,000. By 1910, Dublin had about 395,000 inhabitants, while the population of industrial Belfast had risen dramatically, to about 380,000, up from only 200,000 in 1881.

The nineteenth century witnessed an extraordinary growth in the size of Britain's cities, so that in 1911, apart from London, there were forty cities with a population of 100,000 or more, including Glasgow (1,000,000), Birmingham (840,000), Liverpool (753,000) and

Manchester (714,000). Britain now contained recognisable urban conurbations – distinctive groups of adjacent cities and their outlying areas – with South-East Lancashire (Greater Manchester) containing 2.3 million inhabitants, the West Midlands (Birmingham) 1.6 million, West Yorkshire (Leeds and Bradford) 1.6 million, and Merseyside (Liverpool) 1.2 million. These new urban areas dwarfed the old commercial and administrative towns of Britain, whose population wholly failed to keep pace with the new areas of urban growth. For instance, Chester's population was 15,000 in 1801 but only 39,000 in 1911; King's Lynn numbered 10,000 inhabitants in 1801 but only 20,000 in 1911; Exeter grew from 17,000 to 59,000 in this period. Unless a town could attract new sources of industry or commerce, it often decayed. Some old towns and cities such as Aberdeen, Derby, Norwich and Nottingham managed to find new industries, sometimes because a few local entrepreneurs fortuitously established businesses there, developing the granite industry in Aberdeen and lace manufacture in Nottingham. Nevertheless, without new forms of commerce and industry, numbers declined relatively, even absolutely. Counties bypassed by economic and population growth included Cornwall, which grew from 192,000 in 1801 to only 328,000 in 1911; Westmorland (41,000 in 1801; 64,000 in 1911); most of northern Scotland; and much of rural Wales.

Within each of the old British counties, the growth of enormous new cities meant that the old structures of governance and the old ruling elites were swamped, even obliterated, by the new urban order. Lancashire's county town and capital, for instance, was Preston, which developed its own new industries and grew from 12,000 in 1801 to 117,000 in 1911. But its role as county administrative centre was largely irrelevant to the governance of the county's two huge cities, Liverpool and Manchester, and to the host of smaller, but still substantial,

towns which grew with industrialisation, such as Blackburn, Bolton and Oldham. The traditional, premodern elite structure which had governed at the local level in Lancashire (as in all other counties) – composed of aristocrats and the larger landowners, well-established merchants and lawyers, and some Anglican clergymen – was now largely swamped, in terms of wealth, economic power and ideologically driven political intent, by the new men of industrial and commercial Lancashire, often ‘self-made’ and uncouth, often Nonconformist in religion, often politically radical (at least initially), often regarding the traditional ruling elite – again, at least initially – as their enemies. Accommodating this new elite thrown up by industrial growth with the old elites became one of the major themes of nineteenth-century political life. The pattern found in Lancashire occurred throughout the new industrial areas of Britain. Birmingham in Warwickshire, for instance, became renowned as the great city where semi-socialist civic improvement and public works – led by the great radical (and, later, Tory) leader Joseph Chamberlain – went furthest.

Dwarfing every urban area in Britain – indeed, in the western world – was London, in every sense the capital of the nation and of the empire. Despite the fact that London was so large (indeed, perhaps because of it), it has been easy for contemporary commentators and later historians to overlook: Manchester, with its hundreds of billowing factory smokestacks, was somehow regarded as the norm and the standard from which other cities deviated. London’s growth was indeed extraordinary: from 1.1 million in 1801, it grew to 2.7 million at the time of the Great Exhibition in 1851, and then to 4.8 million in 1881 and, remarkably, to 7.3 million in 1911, when it was almost certainly the largest city in the world. London’s continuing expansion had been checked to a certain extent between 1831 and 1851 (when it grew in size from 1.9 million to

'only' 2.7 million), as newer industrial cities attracted the economically insecure and as London's own infrastructure floundered just before the development of suburban railways and trams, gaslight and running water, but then again spurted enormously, nearly tripling over the next sixty years. London was virtually unique among the world's great cities in combining the formal role of national capital and administrative centre with a host of other functions of fundamental importance – the world's financial centre, in the 'Square Mile' of the City of London, a great shipping port, Britain's press and publishing centre, the focus of arts, entertainment and the intelligentsia, the centre of retailing, and the focus of all of high society, the court, the aristocracy and the wealthy. It was also the largest single manufacturing centre in Britain, producing a range of industrial and consumer goods, although London was not a factory town like Manchester or Leeds.



1. The Great Exhibition of 1851. Held in the Crystal Palace, an enormous building erected for that purpose in Hyde Park, London, the Great Exhibition was the first 'world's fair'. Attracting millions of visitors from Britain and overseas, it was symbolic of Victorian progress and peaceful development.

Since the Middle Ages, London had acted as a magnet for the footloose, and tens of thousands came from other parts of Britain each year to seek their fortunes. While some succeeded, the majority remained in the working classes. For women, the hazards of migrating to London were especially great, with prostitution a ubiquitous and shameful feature of London life, probably more visible and unavoidable than anywhere else in Britain. London's wide combination of roles, and its vast size, place it in a different category from other great world cities. Although New York was America's largest city, its capital was Washington, while in the late nineteenth century, Chicago grew as something of a rival to New York. In many other countries – Russia, Canada, Australia – two rival large cities emerged. There were countries where a single capital metropolis paralleled London's multifaceted role, such as (most

obviously) Paris in France, but none matched London's size in their respective populations. In 1911, for instance, London contained about 16 per cent of the entire population of the United Kingdom, while Paris was the home to only about 5 per cent of the French population. As a result, none of the great new cities of the north of England emerged to challenge London's dominance, which, if anything, increased in the course of the nineteenth century with London's role as capital of the empire and world financial centre.

The population of the entire western world grew enormously during the nineteenth century, and it is difficult to imagine any situation apart from rapid British population growth. This occurred, perhaps ironically, at a time when Britain never saw a revolution but emerged at the end of the century with arguably greater political and social stability than at its beginning. Could this have occurred without the 'safety valve' provided by the empire and massive emigration overseas? Was population growth in part the result of the fortuitous absence of old-style plagues and pestilence? Would it have occurred in the absence of an industrial revolution? Quite possibly; the population of Europe's backward areas, especially Russia, grew just as rapidly as Britain's, without the emergence of more than a skeletal urban working class in these regions. It is just possible, too, to imagine population decline, as in Ireland – if, for example, a sustained great plague visited Britain, or a period of sustained depression led to massive emigration overseas. Arguably, the long period of population growth throughout most of nineteenth-century Europe was merely fortuitous, the result of autonomous factors, and not the product of economic growth or industrialisation.

These population changes helped to ensure the dominance of England within the United Kingdom. Nevertheless, population alone isn't everything, and in and of itself cannot explain the relations between the four parts

of the United Kingdom. Ireland's population declined in absolute terms, yet the Irish contingent of MPs at the Westminster Parliament sometimes held the political balance of power between the major parties.

Chapter Two

The Evolution of the British Economy

Parallel to the extraordinary changes in Britain's population and its distribution during the nineteenth century was the growth and reorientation of the British economy. Between 1801 and 1911 Britain's total gross national income grew from about £232 million to £1.643 billion, a sevenfold increase, at a time when rates of inflation were either very low or non-existent. Economic growth thus outstripped population growth, as remarkable and unprecedented as this was. Historians from about the 1880s often began to depict the era after c.1760 as that of an 'industrial revolution'. This was usually seen as centrally entailing the application of steam power and other forms of advanced motive power to manufacturing production, through the factory system, and to transport, via the railway and steam-powered shipping. While these things certainly occurred, one must not forget that the non-industrial component of the economy – finance, commerce, the professions, the service sector – grew at least as rapidly. Nor ought one to forget that agriculture and farming remained major components of the economy. The Industrial Revolution was also seen as fundamentally altering the class basis of British society, instituting the growth of a huge urban proletariat of workers in factories and mines, alongside a small class of wealthy industrialists. Again, while these changes certainly occurred, it is also the case that there was never a time when the classical industrial proletariat – workers in factories and mines –

constituted more than about 40 per cent of the male workforce, while industrialists never constituted a majority of the wealthy or middle classes. Many recent historians question whether there was a 'take-off into sustained economic growth', to cite the famous phrase of Walt Rostow, the American economic historian who believed that industrial revolutions, wherever they occur, are marked by spurts of much higher levels of economic growth, as measured by that country's national product. Instead, they argue that Britain's growth rate did not increase noticeably during the mid to late eighteenth century, but was fairly steady throughout this period. Such an interpretation might help to explain the relative lack of political unrest in Britain, except in limited periods such as the aftermath of the Napoleonic Wars.

Historians have often debated why it was Britain, rather than a rival nation such as France or the Netherlands, where these economic changes apparently occurred first. Britain was well placed for early industrialisation. It was in many (but certainly not all) respects already a 'modern' society, with no feudalism, peasantry or serfdom as was found throughout most of Europe until the nineteenth century or later. Instead, Britain was already what Thomas Carlyle later termed a 'cash nexus'-based society, where reward was in the form of money wages and enterprise for profit was broadly based. In the eighteenth century, Britain probably already had the highest per capita income of any European state, and was free of very sharp boundaries separating the traditional aristocracy from the rest of society. Self-made men could become aristocrats. Private property was invariably protected by law, and could never be arbitrarily taken by the state. It has often been noted that England (but not Scotland or Wales) was the only part of Europe without any distinctive traditional peasant costume: bearing in mind social class differences, of course, everyone dressed alike. A high per capita income, a

growing population, and broadly similar tastes throughout society were major factors in creating strong internal demand for the goods which the British economy produced, especially for the cotton and woollen mass-market goods emblematic of the first phase of industrialisation. These demand factors were augmented by increases in productivity and by Britain's fortunate position as a prime exporting nation, but, many historians have argued, were important elements in generating economic growth.

Britain also controlled, or was dominant in, a large fraction of the external trade of the world. Britain already had a large empire, centred in India, Canada and the West Indies. It also exported to Europe, and ironically was significantly assisted after the rise of Napoleon when Britain successfully blockaded the French-dominated areas of the Continent, removing potential European rivals to Britain's export trade. After the American colonies gained their independence, economic ties between Britain and the United States resumed strongly. When most of Latin America gained independence from Spain in the early nineteenth century, the continent in many respects became an unofficial British economic colony. Above all, British world trading hegemony was crucially guaranteed by the dominance of the Royal Navy.

These potent factors were necessary, but not sufficient, preconditions for industrialisation. Arguably more important was Britain's propensity to engender both successful business entrepreneurs, especially in the newer manufacturing industries, as well as the new inventions that made industrialisation possible, which produced the supply which matched home and foreign demand. Britain had always produced successful merchants and entrepreneurs; what was relatively new was their success in large-scale manufacturing industry as well as in trade and finance. Many of Britain's successful early industrialists were Protestant Nonconformists, whose

'Protestant ethic' of hard work and situation outside the Anglican-dominated elite structure probably acted as sparks to success. However, it might be noted that the two richest industrialists of the early nineteenth century, Richard Arkwright and Sir Robert Peel – the father of the prime minister – were Anglicans and that there were certainly a very significant number of Anglican entrepreneurs. It is likely, in fact, that Anglican businessmen were just as successful as Nonconformist businessmen. Possibly, too, Anglican success regularly came in different areas of the economy, for instance in overseas trade and brewing, from the areas of success enjoyed by Nonconformists. It is quite possible that there were disproportionately more successful Nonconformist industrialists and manufacturers than Anglicans, especially in the new urban areas of the north of England. The first wave of successful industrialists, especially in large-scale cotton and woollen manufacturing, achieved their success before steam power was used in factory production, their factories powered by water in remote rural areas.

When steam power became more widespread, from the 1820s on, a second wave of large-scale industrial production began, far greater than anything seen before. Most of this production was done in factories in cities, where steam power could be used without the necessity of ample running water, and the classical factory towns of the Industrial Revolution, especially Manchester, grew enormously as a result. Factory production centred above all around the manufacture of cotton goods. Imports of raw cotton into England grew from 93 million pounds in 1815 to 554 million pounds in 1844, the decades when factory capitalism grew most strongly. Steam power also generated a vast increase in coal production, the basic source of energy for all steam power and almost all domestic heating, while the manufacture of iron and engineering equipment likewise increased astronomically. This was the classical

Industrial Revolution, an image known to us all as hallmarked by belching smokestacks, small children employed as factory hands, and hard-nosed factory owners alongside a proletarian army. By 1841 about 1.5 million people were employed in manufacturing in the United Kingdom, along with another 220,000 in mining, out of a total employed labour force of about 6.8 million, about 25 per cent of the total. Their numbers continued to grow until after mid-century, reaching about 40 per cent of the workforce by 1861, but then remained fairly stagnant, as the service sector of the economy increased sharply.

The very symbol of the new age was the railway, as emblematic of nineteenth century Britain as the cathedrals and monasteries had become of the Middle Ages. Primitive railways, consisting of carts running on wooden tramways, had been in operation in mining areas since the sixteenth century; these were, of course, pulled by horses or human labourers. Although steam engines had existed since the 1760s, it took until about 1804 for anyone to combine the two, and until the mid-1820s for the railway revolution to begin, with the famous Stockton-Darlington railway. Britain's railway revolution and its railway 'mania' took another decade or more to erupt: in 1837 there were only 540 miles of railways in operation in the United Kingdom, and fewer than 5 million passengers carried. The slow development of Britain's railways suggests that, as some economic historians have argued, rapid and sudden transformations of the economy did not always occur in this period. The late 1830s and 40s, however, witnessed the railway mania in full flood: by 1850 there were 6,084 miles of railways built, and 67 million passengers. The rest of the nineteenth century saw the remainder of Britain's railway system fleshed out, reaching virtually every place of significance in the country, so that by 1911 there were over 20,000 miles of railways in operation, with 1.3 billion passengers carried. England always had more railway

mileage, in terms of its size, than Scotland, Wales or Ireland. Nevertheless, by the early twentieth century much of the Scottish Highlands, Welsh hill country and Irish rural areas were connected to urban centres by rail.

As a system of transport, railways were vastly faster, more reliable, and more efficient than anything known before, but they still had many deficiencies: accidents, often fatal, were frequent, and railways were highly labour-intensive, employing 373,000 people by 1911. By definition railways could not leave the track, and both persons and goods still had to be met and transported from the station to their final destination, which left ample room for widespread horse-drawn carriage until the automobile age. Steam power was a mighty pollutant, and London's many mainline railway stations were deliberately situated at the edges of the central city, rather than at the hub. Perhaps uniquely in Europe, all Britain's railways were built, operated and owned by private capitalists and companies, rather than by the state, and the railway companies grew to become among the largest of nineteenth-century businesses. Some railway builders and managers became legendary, with Isambard Kingdom Brunel (1806–59), also a celebrated shipbuilder, emerging as the public face of British industrial capitalism. The great edifices of Victorian engineering such as the famous railway stations, the viaducts, and a structure like the Forth Bridge, were at the heart of industrialisation. The Forth Bridge, linking Midlothian with Fife, opened in 1890 after taking over ten years to complete, impresses even today by its incredible size.



2. The Forth Bridge. One of the greatest of all Victorian construction projects, the mighty Forth Bridge linking Edinburgh with the north of Scotland opened in 1890. Its truly staggering size, as seen in this photograph taken when under construction, must have seemed like science fiction to observers at the time.

As noted, there has long been a debate as to whether Britain's industrialisation was rapid and sudden or steadier and more drawn out. Many recent historians have seen a much slower and less dramatic process of economic growth than did historians of fifty years ago. Rates of economic growth were surprisingly low, perhaps because the British economy was relatively advanced before industrialisation. It is very important to remember that while industry and manufacturing were the most dramatic aspects of Britain's growing economy in the nineteenth century, they were not the only or, indeed, arguably the most important sectors. Britain's service sector – commerce, finance, trade, and the professions – was of central importance. Economic growth in the service sector is intrinsically more difficult to measure or quantify than in manufacturing or industry, a fact which calls into dispute the accuracy of Britain's statistics of economic growth. Britain had long been a world centre of trade, commerce and finance; during the

nineteenth century its centrality in these spheres increased and consolidated. In particular, the role of the City of London as the centre of the world's international finance reached its apogee. The City – as the historical Square Mile centring around Threadneedle Street, which contains London's financial district, analogous to Wall Street in New York, is known – financed much of the world's economic growth and development through merchant banks owned by renowned families such as the Rothschilds and Barings. It also contained the Stock Exchange, Lloyds of London insurance, the headquarters of the great clearing banks and insurance companies, and many company headquarters. The City established a reputation for probity, and for the ability to finance large-scale government loans, which made it the world's financial capital until this mantle passed to New York after the First World War.

Much in the world's international economic life was governed by the gold standard, by which the value of any currency was fixed against gold bullion, and redeemable in gold. Each country's central bank set its exchange rate, which had to be preserved by the use of its gold reserve. The gold standard appeared to work harmoniously until the First World War destroyed the world's existing currency system. London was a great centre of commerce as well as finance, containing innumerable retail shops, wholesalers, warehouses, import-export houses, and the great docks of the Thames. Other major British cities, such as Liverpool and Bristol, were primarily oriented around commerce and trade rather than manufacturing. While employment in manufacturing reached 40 per cent of the total workforce in 1861, and then hardly grew, the service sector increased during the late nineteenth century, increasing from about 21 per cent of the workforce in 1861 to about 30 per cent in 1901. Edinburgh and Dublin flourished as governmental centres and as homes of the local professional elite, as did London in part on a vastly greater scale. The service sector

also included an ever larger segment of professionals and semi-professionals. While the older professions – traditionally law, medicine, the Anglican clergy, and perhaps military officers, always regarded as occupations for gentlemen – increased substantially during the nineteenth century, they were joined by newer professions such as accountancy and engineering, as well as the so-called ‘sub-professions’ – schoolteachers in the state sector, nurses, librarians – with an increasing female presence. Nursing, in particular, emerged as arguably the woman’s sub-profession par excellence, a nurturing, life-saving occupation whose icon was Florence Nightingale, but one in which its largely female workforce was expected to work like slaves, in highly unpleasant ways, for a pittance, almost always ultimately directed by male doctors.

While industry, commerce and the professions comprised the bulk of the nineteenth-century workforce, one should remember that agriculture was still extremely important to the British economy. In 1811, about 35 per cent of families in Britain were engaged in agriculture. There was a continuous decline in agriculture as a component of the employed workforce throughout the century, to 27 per cent in 1861, 19 per cent in 1881, and 11 per cent in 1911, but these still comprised substantial numbers of persons. In 1851 nearly 1.8 million males were employed in agriculture and farming, more than any other occupational category. Britain’s overall national income still included a large, albeit declining, agricultural and farming sector, which accounted for 33 per cent of Britain’s national income in 1801, 20 per cent in 1851, and 6 per cent even in the early twentieth century. Many parts of Britain still remained visibly rural and pre-industrial down to the First World War, with farmers and agricultural labourers, to say nothing of the country-house life of the aristocracy and gentry, being familiar props of English novels, poems and other literary depictions throughout the nineteenth century. Indeed,

given the relatively efficient and progressive nature of much of British agriculture (outside of southern Ireland and other Celtic areas), Britain's landowners and farmers grew ever wealthier at least until the late Victorian agricultural depression, which began around 1880 when the large-scale importation of foreign foodstuffs undermined Britain's farming sector. The Highlands of Scotland, the Welsh-speaking areas of Wales, and most of Ireland retained a larger rural sector than did most of England, although rural areas predominated in parts of England such as Cornwall and East Anglia until the twentieth century.

British agriculture had been based, throughout modern history, on the so-called 'triple division of land tenure'. A landowner, often a wealthy aristocrat, owned the land, which was worked by a tenant farmer who paid a rental income to the landowners, and who in turn employed agricultural labourers. (There were also smaller owner-occupiers of land, especially in the north of England, Scotland and Wales.) This type of landownership made efficiencies of scale and investment in the land and new equipment and methods of production possible, and gave many of those landowners a vested interest in increasing the profitability of the land. British agriculture was, as a rule, more profitable and advanced than anywhere else in Europe, where small peasant holdings were the norm. Only when British agriculture was itself challenged by the gigantic farms and their output of the United States, Canada and Australia, in the latter part of the nineteenth century, did it face serious competition.

During the eighteenth and nineteenth centuries, enclosure continued. Landowners secured Acts of Parliament to 'enclose' fields previously owned in common, taking them over as private property in exchange for fencing them and providing agricultural improvements. The alleged loss of rights by the rural poor, whose access to