Economies in space and time : economic geographies of development and underdevelopment and historical geographies of modernization

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1 Introduction : economic disparities and pathways to modernization and development

Today the most developed parts of Europe are centred on a core of major international cities and advanced city regions, most of which lie along a vital axis (see Figure 1) which extends from Greater London through Benelux and the Rhinelands in the western half of Germany to Northern Italy. Although there have been fundamental changes in the characteristics of the places that comprise this axis, the concentration of development in this part of Europe dates back at least to the medieval world, when Flanders and northern Italy were the major foci of European industry and commerce. In the early modern era this axis was reinforced and its centre of gravity moved northwards as a result of the growth of the historical capitals of Europe's major colonial powers (Amsterdam, London and Paris), while in the 19th and 20th centuries wealth accumulated as a result of Europe's industrialization contributed further to the development of the axis itself and its north-western extension in Europe's first industrial nation. Not all areas that emerge as dominant poles of development retain their relative advantage. In the case of this axis of European development, however, there is clear evidence for the existence of long-term processes of circular and cumulative causation which have permitted the almost constant adaptation to changing circumstances of established cities with critical concentrations of people, economic infrastructures, enterprises, knowhow and political power.

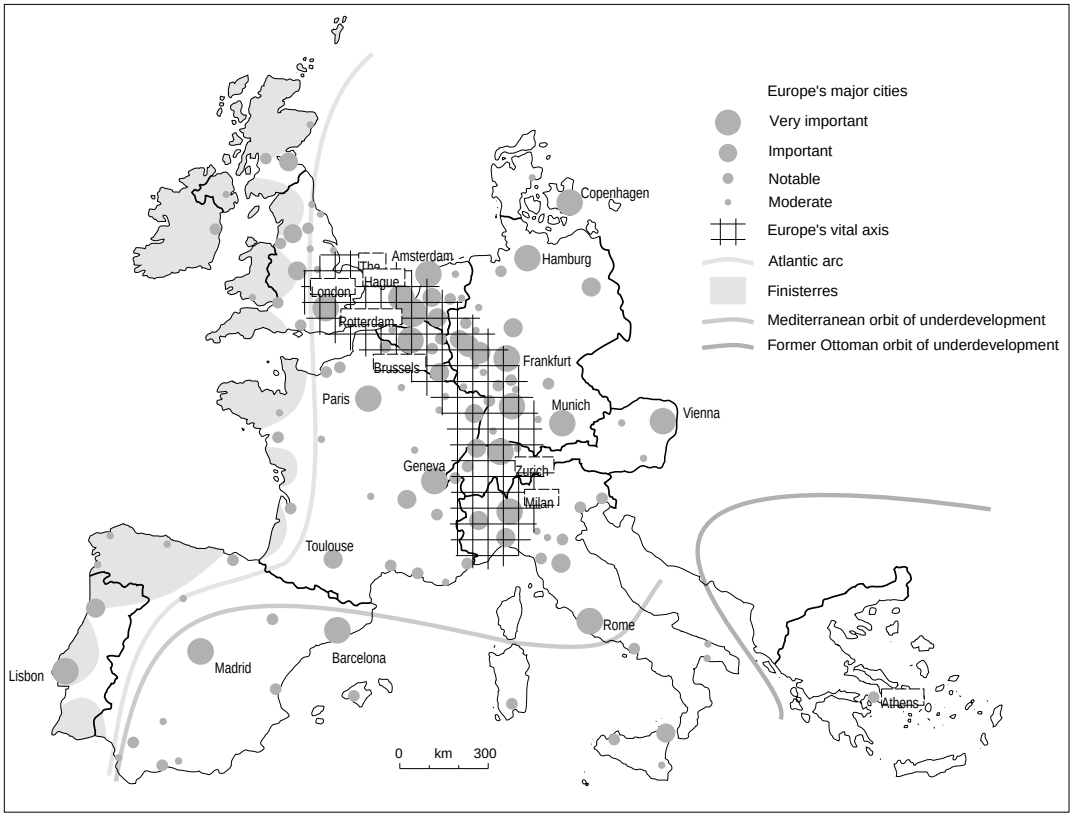


Figure 1 Europe's vital axis

Around this axis and the countries that are near it there are a series of orbital zones of relative underdevelopment. To the south the Mediterranean's rich land and sea resources supported remarkable early developments in agriculture and trade and allowed it to emerge as the centre of a succession of hegemonic world economies. Five hundred years ago, however, when Ottoman power was at its height in the east, Hapsburg Spain and Portugal initiated the European conquest of the globe. As the Atlantic was opened up, the coastal cities of Mediterranean (of which the most important were Venice, Genoa and Barcelona) slowly ceased to be the centres of global economic power and world decision-making. The centre of economic gravity in the world shifted northwards and westwards, first to Amsterdam and later to Great Britain, while the subsequent industrial revolution, which created immense disparities between the economies that industrialised and those that did not, at first largely bypassed the Mediterranean or locked its inhabitants into a subordinate role in wider divisions of labour. Of the countries and regions that surrounded the Mediterranean, northern Italy where there was strong industrial growth especially after 1896-8 was, with Catalonia in Spain, one of the few examples of significant late 19th century industrialization. In the 20th century industrialization and modernization did occur more widely around the Mediterranean, but with different degrees of delay and different trajectories that are reflected in sharp contemporary inequalities around the 'inner sea' and in the clear divide between the economically rich areas with naturally declining populations in the north and the areas with impoverished, rapidly growing populations living under quite different religious and political systems in the south.

To the west there is a maritime Atlantic arc stretching from the Shetlands to Gibraltar. This arc is made up of regional and national economies which today are peripheral with low population densities and incomes per head. As in the case of the Mediterranean this situation is the result of their particular trajectories of modernization and development, though the paths they followed were rather different. In particular, the rise of trans-Atlantic sea commerce led to the rapid growth of a series of ports along Europe's western coasts. Growth, however, did not generally survive the subsequent decline in the relative importance of this commerce. In the 19th century, most of the areas in this arc failed to industrialise, specialising instead in the export of agricultural products and raw materials, sometimes due to the loss of protection associated with imposition of the rules of free trade. In the absence of significant industrial growth, depopulation and emigration were common, though their scale and duration varied sharply. The most dramatic case was Ireland: in that part of the island of Ireland that became the Republic of Ireland population fell by almost 51 per cent in 1841-1951, though in the north-east corner where there was a significant development of modern industries it declined by just 17 per cent (Mjøset, 1992; Bradley, 1996; see also Munck, 1993).

The fortunes of other small northern countries (such as Norway, Sweden and Denmark) were rather different in that emigration and population decline were more short-lived with processes of late industrialization leading to the 20th century development of successful export industries and related systems of innovation around their natural resource endowments. In the case of Sweden, for example, industrial growth was centred on the export of forestry and wood processing products, iron and later steel, around which paper, cellulose and capital goods industries developed, while in the Danish case exports of agricultural products led to increased incomes which created market conditions for the growth of small-scale, import-substituting consumer good industries (textiles, construction materials and processed food).

Greece and the Balkans to the south-east were part of a world centred on the Eastern/ Byzantine Empire which from the time of Great Schism of 1054 (see Figure 4) was largely included in that eastern half of Europe that was Christian Orthodox. With the 12th century collapse of the Byzantine Empire, the Balkans fell under Ottoman influence. At its peak Ottoman rule extended as far as the gates of Vienna and into southeastern Poland (see Figure 6), and not until Napoleon Bonaparte sought to extend French influence throughout Europe did it start to crumble, leaving a legacy of relative underdevelopment especially in the areas longest occupied by the Turks (as the Ottoman Empire was characterised by the existence of a hierarchical, exploitative and economically and technologically unprogressive state system and mode of production) but also in the areas beyond which witnessed the development of countervailing multinational empires (Berend and Ránki, 1974 : 3-11). This dismantling of Ottoman rule took more than a century : not until the end of the First World War was Turkey eliminated as a significant actor in the Mediterranean and in Europe.

Figure 2 Europe : relief, main rivers and cities

Figure 3 Europe circa 814 : Carolingian Europe, the Byzantine Empire (610-1453), Kievan Russia, 880-1054 and the Emirate of Cordoba

Figure 4 The Great Schism, 1054

Figure 5 The western part of the Mongol Empire (1206-1696) circa 1300: the Khanate of the Golden Horde

Figure 6 The rise of the Ottoman Empire,1300-1683

Figure 7 The Great Powers : Europe on the eve of World War I

Yugoslavia (the country of the southern Slavs) is an important illustration of this evolution and its legacies. Settled by Slavs (Slovenes, Croats, Serbs and Bulgars) in the 6th and 7th centuries, until 1918 this part of Europe was dominated by three successive empires : at first it was a part of the Christian Orthodox Byzantine Empire though it was pressured from the north by Magyar migrations and the Kingdom of Hungary; after the Turkish defeat of a Serb coalition at the Battle of Kosovo Field in 1389, it was incorporated into the Ottoman Empire; in the 16th century the Catholic Austrian Hapsburg Empire established control over northern Yugoslavia, making Slovenia and Croatia the southern frontier of Christian Europe. In 1815 Serbia, with Russian support, gained its independence. In 1908 Austria took control of Croatia (see Figure 7), contributing to the assassination in 1914 of the Archduke Ferdinand and the start of the First World War. In 1918 Yugoslavia was established. In 1940 it was invaded by fascist Germany. In 1991 it fell apart as a result of the German-sponsored secession of Slovenia and Croatia.

While southeastern Europe and the southern half of Central Europe were one of Europe's frontiers with the Islamic world and were subject to Turkish invasions and domination, Eastern Europe was Europe's frontier with Central Asia. As such it was subject to successive waves of invasions by nomadic pastoral tribes from whom it shielded the west, at the expense of its own early agrarian development. The last of these invaders were the Mongol Tartars who, after overrunning much of eastern Europe and the Balkans, settled in the wedge-shaped western extension of the Eurasian steppe lands in the Dnepr-Don-Volga area near the Caspian Sea (see Figure 5), whence they exacted tribute from Russia from 1240 until 1480.

After 1500, when a new phase of expansion set in, the trajectory of the east and of the more densely-peopled and developed west differed even more sharply. In the west there was an acceleration of a transition to capitalism, a subsequent movement towards the creation of Absolutist state systems and the creation of an early modern world economy. (Absolutist states are those in which absolute power unrestricted by any other governmental institution was vested in the hands of monarchs or other rulers as, for example, in the cases of Charles I in England and Louis XIV in France). In the east there were a number of differences. First, after the elimination of serfdom in the west, a 'second serfdom' was imposed in the east : serfdom was imposed in Brandenburg in 1494, in Poland in 1496, in Bohemia in 1497, in Hungary in 1492 and 1498, and in Russia in 1497 (Szücs, 1998: 313). Especially in 1550-1620 the German feudal *Gutwirtschaft* established in areas beyond the Elbe and large Polish estates cultivated by serf labour were integrated into the west European world division of labour via the export of grain from Stettin, Gdansk and Königsberg to Brugge and Amsterdam : serfdom in the east accordingly served as a way of organising production destined to serve western markets. Second, in the east there was an early modern continuation of the medieval processes of 'internal expansion' (Szücs, 1998: 293) and settlement as the Russian Empire rejected Mongol (the Golden Horde) overlordship in 1480, pushing out southwards from Moscow, going on to conquer the khanates of Kazan in 1552 and Astrakhan in 1556, and subsequently annexing and conquering further territories to the west, south and east (reaching the Pacific Coast by the mid-17th century). Third, there were differences in the nature of western and eastern absolutism. In the west absolutist states emerged after 1580 and survived in the more developed parts of Europe until the Enlightenment, whereas in the east their roots lay earlier in the Mongol invasion and conquest. As Anderson (cited in Szücs, 1988:315), has argued in the west absolutism was 'a compensation for the disappearance of serfdom', and outlived the 18th century only in Spain, Portugal and southern Italy, while in the east it was 'a device for the consolidation of serfdom' (surviving in Russia until the 20th century).

An important consequence of these different timings and differential trajectories was the opening up of a large east-west development divide. There were some areas of early industrial development in the eastern half of Germany, in the Russian Empire and in the extraordinary patchwork quilt of economies and nations that made up the Austrian Empire, especially after their governments embarked in the 19th century on state-led processes of late industrialization. Moreover, in the 20th century, Communism triumphed in part as it was seen as a new way of attempting to close the gap between eastern Europe and the advanced capitalist world. In spite of some early successes, however, it finally failed.

What this sketch makes clear is that there are sharp contrasts in the timing, nature and speed of development and in the pathways to modernization within and between the peripheral and the core areas of European capitalism. The Europes that result can be divided up in a number of ways. Szücs (1998), for example, insists on the existence three Europes and of two boundaries for western Europe. The first is the Elbe-Leitha line that marked the eastern extent of the Carolingian Empire (see Figure 3) and that also marked the Yalta division of Europe after 1945. The second is a line further east stretching from the Baltic to the Carpathians which separates Europe Occidens, influenced of Rome and Catholicism, from the east, influenced by the Byzantine Empire and Orthodox Christianity (see Figure 4). Over the course of time there have been changes in the relative importance of these lines of cleavage, enabling Szücs to argue that Central Europe which lies between these two lines is a distinct region of Europe (with more affinity with the west than the Christian Orthodox

east).

What I shall argue is that the causes of contrasts in contemporary Europe lie to a significant extent in these contrasting pasts. More specifically I shall argue that they lie in a number of processes with different temporalities/durations, with different spatial extents and with different degrees of durability of their effects : as Marx argued, people make history but in circumstances that are not of their choosing and that are inherited from the past. In developing these ideas I shall also implicitly be arguing for a historically and geographically oriented political economy of geographical change (see, for example, Dunford and Perrons, 1983).

Before sketching the rise of capitalism and the trajectories of European economic and social modernization, it is important to emphasise the importance of avoiding the pitfalls of Eurocentric perspectives and of acknowledging that there has been a continuous but irregular quest for scientific/technological advance located in many different world regions (China, India, the Near East, the Mediterranean, etc.). The scientific and economic efforts of Europe and the West fit into this quest and the patterns of development that resulted, shaping them profoundly especially since the 16th century. A recognition of this multiplicity of efforts reduces the distinctiveness of what occurred in western Europe. More importantly, recognition of the earlier backwardness and marginality of Europe (as Europe was in cultural and economic development terms a late starter) clearly indicates that any explanation of the significant changes that occurred with the rise of capitalism can not be accounted for exclusively or even primarily in terms of some west European tradition or culture (see Wallerstein, 1990; Wolf, 1982; Therborn, 1995: 19-21).

2 Time and space : understanding historical systems

The diverse character of contemporary Europe is in part a result of recent events. As I argued in the last section, however, it is also rooted in the near and distant past and is in this sense a result of much longer-term economic and political developments. To analyse some of the longer-term processes, I shall draw on the idea that there are different temporalities or different categories of space-time, in particular as it has been developed by Braudel and Wallerstein (see Figure 8 and Wallerstein, 1988).

Figure 8 Concepts of historical time and geographical space (geohistorical timespace)

Fernand Braudel[1]	Immanuel Wallerstein[2]
❒ *L'histoire événementielle* = (idiographic) episodic (short-term) history	❒ Immediate (idiographic) geopolitical space
❒ *L'histoire conjoncturelle* = cyclical (medium-term) history	❒ Ideological space
❒ *L'histoire structurelle* = history of economic and social structures that determine over the *longue durée* human collective action	❒ Structural space
❒ *L'histoire des savants* = (nomothetic, 'too long-term') history of the sages	❒ Eternal (nomothetic) space

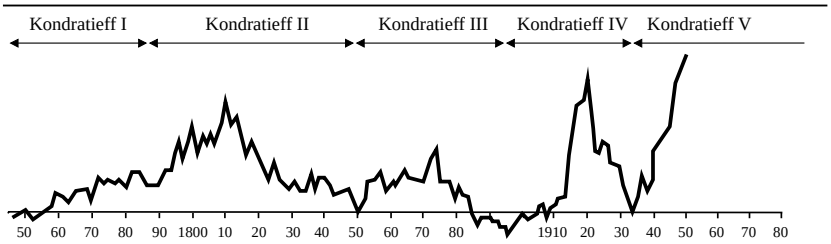
1 Length of time-span/Substantive object 2 Spatial scope/Substantive object

Braudel has distinguished several types of history. At one extreme is what he called *l'histoire événementielle* (episodic history) which provides the materials studied in ideographic social sciences and in ideographic history and geography (though behind events lie certain structures that define limits and possibilities). At the other extreme is *l'histoire des savants* (the history of the sages) which involves the use of the concept of time underlying the work of those universalistic and nomothetic social scientists who see invariant structures in the human social world (including universal concepts of human nature). The categories Braudel considered more important are what he called *l'histoire conjoncturelle* (the history of the cycles) and *l'histoire structurelle* (the history of structures) which involve the recognition of cyclical movements and evolutionary phenomena. As Wallerstein (1988: 291), developing Braudel's ideas, argued, historical reality is 'the reality of enduring but not eternal sets of structures (what I would call historical systems), which have their patterned modes of operation (what I would call their cyclical rhythms), but also have a continuous slow process of transformation (what I would call their secular trends)'. In this discourse the words crisis and transition are used to refer to changes that occur in structural time, or, as Wallerstein prefers, structural TimeSpace. At these points of crisis and transition, instabilities predominate, the determination that the laws of functioning of a social order exercise over social and economic life weaken, and a transformational TimeSpace exists in which all individuals and groups are able to exercise fundamental moral choice and choose a new order.

Braudel's and Wallerstein's notions of secular trends and in particular the idea that it is possible to identify historical systems which undergo constant slow processes of transformation and which experience more radical transformation in occasional phases of crisis and transition accords with the idea that European development has been associated with the development and crisis of a series of modes of production (classical, feudalism, merchant capitalism, industrial capitalism and Communism). The first ideas that I shall briefly develop concern the pertinence of these categories in explaining European modernization.

Cyclical rhythms are shorter term movements of a range of different durations, and their analysis is more concerned with transformations within a particular economic order (such as a capitalist order). In this chapter I shall consider just some of the longer term cyclical movements and in particular Kondratieff-type cycles (see Figure 9). Although their existence is challenged by some economists, Kondratieff-cycles play an important role in the accounts of historical change developed by Braudel and a number of medieval and early modern economic historians and in analyses of cyclical movements and structural change in industrial societies.

Figure 9 Kondratieff cycles and the secular trend

	1770/90 - 1830/50	1830/50- 1880/90	1880/90- 1930/50	1930/50- 1970/	
					
Cycles	Early manufacture and mechanisation/ Industrial revolution- 'Hard times'	Victorian boom- 'Great depression'	Imperialist boom/ Belle époque- 'Great depression'	Keynesian/ Fordist 'Golden Age-1970s and 1980s crisis	Automation, information and communications age-
Leading sectors	Textiles, textile chemicals and machines, iron, water power, potteries, canals	Steam engines, railways and rail equipment, iron, coa	Electrical machines and equipment, heavy engineering, armaments, steel ships, chemicals and synthetic dyes	Vehicles, armaments, aerospace, consumer durables, process plant, synthetic materials, petrochemicals, roads, housing, oil	
Principles of work organisation	Factory organisation, mechanisaton of leading industries	Steam engine, machinofacture and transport		Flow line/process technologies, standardisation, mass production	Systemofacture, collaborative manufacturing, reintegration of mental and manual work
Principles of regulation	Laissez-faire, removal of restrictions, emergence of British naval, financial and commercial dominance	Laissez-faire, Pax Britannica, free trade, Gold Standard	Nationalist/ imperialist state, colonialism	Welfare/warfare state, Keynesianism, social partnership, Pax Americana	
Leading economies	Britain, France, Belgium	Britain, France, Germany, USA, Belgium	Germany, USA' Britain, France, Belgium, Switzerland, Netherlands	United States, Germany,rest of EC, Japan, Sweden, Switzerland, rest of EFTA, Canada, Australia, USSR	Japan, USA, Germany, Sweden, rest of EC and EFTA, East Asia

In the literature on industrialization there are several explanations of these cycles. The most influential are perhaps Schumpeterian and neo-Schumpeterian accounts of innovation and technical change. According to Schumpeter, there are long-term cyclical movements in industrial societies because of a historical clustering of innovations in periods of slackening growth. As innovations are adopted and diffused throughout an economic system, the rate of growth accelerates until the scope for diffusion is exhausted at which point growth slows down.

Neo-Schumpeterian accounts draw on these insights. Freeman (1988, 9-11), for example, argues that there are four kinds of innovation: (1) incremental innovations which produce a continuous flow of modifications to existing products; (2) radical innovations which involve qualitative shift as with the development of nuclear reactors for electricity generation or the changeover from cotton to nylon; (3) a change in 'technology system' which involves a constellation of technically and economically interrelated radical innovations that affect whole industrial sectors; and, (4) where new technology systems have pervasive effects on the whole of economic life and involve major changes in the capital stock and skill profile of the population, changes in 'techno-economic paradigms' as occurred with the diffusion of steam and electric power in the past and the development today of information and communications technologies. Drawing on these distinctions, Kondratieff-type downturns are explained in terms of the existence of contradictions or a mismatch between the development of the forces of production (in the shape of new techno-economic paradigms) and the social framework, social institutions and the social relations of production. (This explanation is close to Marxist accounts of historical change which also dwell on the relationships between the forces and relations of production). Kondratieff-type upturns, conversely, are explained by the diffusion of new technology paradigms permitted by the correspondence of forces and relations of production. This framework also offers a number of elements of an explanation of uneven development in its recognition that the extent of the mismatch differs from one nation to another, with the result that some economies (cities, regions and countries) are, in certain periods, far more successful than others.

Another closely related interpretation of Kondratieff-type cycles is provided by theories of regulation. Theories of regulation rest on the view that capitalist development is characterised by phases of rapid and relatively successful growth and development (such as the Victorian boom, the Belle Epoque and the Fordist golden age after World War Two) punctuated by phases of crisis (such as the inter-war depression marked by economic stagnation and mass unemployment) (see Figure 9). Each crisis has a particular explanation, but at a more abstract level crises are explained in terms of the contradictions and conflicts that are inherent in capitalist economies, of which the most important are conflicts of interest between capitalists and wage earners on the one hand and coordination failures (such as an simultaneous under- and over-investment, or inadequate demand due to attempts to squeeze wages to increase profits) on the other. As the existence of phases of successful growth shows, however, it is possible to 'regulate' these contradictions and conflicts and to manage them in ways that are consistent with the dynamic expansion of the system (that is with the establishment of a coherent model of development or regime of accumulation). As in neo-Schumpeterian approaches each phase of growth is seen as embodying a particular technical paradigm/principles of work organization and a particular set of institutions/modes of regulation. The establishment of a mode of regulation involves institutional reform and depends on a particular political compromise. An example is the development of the welfare state and the managed economy after World War Two to resolve the contradictions that had led to mass unemployment in the inter-war years which itself involved a new social or Christian democratic compromise between industrial capital and wage earners (see Aglietta, 1979; 1982; Dunford 1990). As is clear from this brief account there are similarities between theories of regulation and neo-Schumpeterian models. The main contrast lies in the fact that theories of regulation give social relations and economic mechanisms a much more central role (with the establishment of a new mode of regulation capable of regulating the contradictions of a capitalist order laying the foundations for a particular regime of accumulation), and technological factors a much more mediated one.

What these theories indicate is that the societies that are in structural terms characterised by capitalist relations of production and exchange have assumed a number of historical forms. In each cyclical phase of development the concrete expression of the social relations of a capitalist social order differ : capitalism has itself changed in order to survive. At the same time changes in the technical foundations and social relations that underpin economic life have been accompanied by significant shifts in the map of economic development and the geographies of wealth and economic leadership.

3 Secular trends and the transition to capitalism

Cyclical movements and inequalities in development were a feature not just of the industrial era but also of the medieval and early modern periods in Europe in which the foundations for later industrial development were laid (see Braudel, 1984; Kriedte, 1983; Wallerstein, 1989). Moreover, short-term cycles and cycles of some 50 years duration coexisted with much longer-term secular cycles lasting 200 to 300 years.

Confining attention to the more critical longer swings, a number of phases can be identified. Commencing in 1050, there was a long phase of internal and external agricultural and demographic expansion and an accompanying slow growth of commercial activity which lasted until 1250. In Britain there was considerable internal expansion involving the clearing of forests, drainage of fens and reclamation of marshlands. In the case of Germany external expansion occurred with the extension of German settlement east of the Elbe, while the Spanish Reconquista of 1085-1340 involved the recovery of Spain from the Moors (see Figure 3) who had earlier taken not just Spain but had advanced as far as Poitiers in France. At the same time much of Christian Europe was involved in more distant overseas expansion, especially as a result of the Crusades.

This long upswing was followed by a downswing from 1250 until 1450 which included the deep early 14th century crisis marked by famine and plague (transmitted in all probability as a result of the development of an extensive trading network with links to China, the Islamic world and the Mongols) population decline, settlement retreat and a fall in seigneurial incomes.

Coinciding with the discovery of America, the exploration of the sea route to India (via the Cape of Good Hope) and the start of European overseas expansion, there was a phase of renewed expansion in the so-called long 16th century (extending from 1450 to 1600 or 1640 depending on the parts of Europe considered).

In the 17th century this wave of expansion gave way to a new crisis, marked by falling agricultural prices and slackening population growth.

In the 18th century there was a renewed upturn dated in the case of Britain from around 1750. With this phase of expansion Britain emerged as the dominant global economic power, first, as the centre of an extensive world trading system and, in the latter part of the century, as the world's first modern industrial nation.

These movements were secular not just in the sense that they were long-term but also as they were accompanied by a transition from one social order, feudalism, to another, merchant capitalism. There are several interpretations of this transition. At one end of the spectrum there are theories of market emergence which emphasise the development of certain mentalities and in particular of human acquisitiveness on the one hand and the

emergence and protection of property rights and markets on the other. Examples of the these theories include Adam Smith's explanation of the emergence of commercial society in terms of economic individualism, the pursuit of self-interest and 'natural' human propensities to 'truck and barter' and North and Thomas' explanation of market emergence in terms of demographic movements, technological change and the creation by the state of a stable legal framework (for details see Holton, 1985). At the other end of the spectrum are political economies of the transition to capitalism, conceived not just as a market economy in which goods and services are produced for sale, but also as an economic order centred on a wage relation which itself entails the creation of a wage earning class separated from ownership/ control of land and the means of production and their concentration (via a process of primitive accumulation) in the hands of a relatively small propertied elite.

There are, however, a number of competing accounts of the transition to capitalism. In particular there are disagreements as to whether the prime mover was the development of trade, commerce and the international division of labour (exchange relations theories) or the development of the wage relation (capitalist social relations and class conflict theories which concentrate on the ways in which feudal social relations started to fetter economic and technological progress and were replaced by capitalist relations of production) (see the account of the Dobb-Sweezy debate in Hilton, 1976). More recently there were a series of exchanges in what was called the Brenner debate between advocates of class relations explanations and the supporters of Malthusian-type models of economic change. Malthusian models were developed specifically to account for the alternating phases of expansion and contraction of pre-industrial societies, but chose as the prime mover population growth which led to the cultivation of marginal land, diminishing productivity and subsistence and demographic crises (see Aston and Philpin, 1985).

As capitalism is not simply a market system, the transition debate is more relevant than theories which confine their attention to the emergence of markets. What I shall argue, however, is that an explanation of the secular movements identified in this section and of the transition from feudalism to capitalism involves a synthesis of these competing perspectives. More specifically, I shall argue that, starting in the first upswing, the functioning of interconnected but unequally developed feudal societies led to a threefold development : the establishment of capitalist mode of agricultural production, most fully in England, and of more commercialized peasant capitalism in countries such as the Netherlands; an increase in the influence of merchant capitalists, financiers and mercantile companies; and the establishment of the proto-industrial roots of Europe's industrialization. One consequence was a secular transition from a feudal world dominated by knights and merchants to a merchant capitalist world of adventurers and companies, and the preparation of the ground for a further transition to an industrial capitalist world of generals and industrialists (Nolte, 1992). Another was a series of shifts in Europe's and the world's economic centres of gravity reflected in part in the differential pattern of European population growth (see Table 1).

Table 1 Population change in Europe, 1500-1800 (Source : Kriedte, 1983: 3)

	1500		1600		1700		1800	
	Popula-tion	Index	Popula-tion	Index	Popula-tion	Index	Popula-tion	Index
Northern Europe (Denmark, Norway, Sweden, Finland)	1.6	100	2.6	162	3.1	194	5	312
Northwest Europe (British Isles, Netherlands, Belgium)	6.3	100	9.7	154	12.7	202	21.2	337
Western Europe (France)	17	100	17.9	105	20.8	122	27.9	164
Southern Europe (Portugal, Spain, Italy)	16.4	100	21.7	132	21.7	132	31.3	191
Central Europe (Germany, Switzerland, Austria, Poland, Czech parts of Czechoslovakia)	18.5	100	24	130	24.5	132	33.5	181
Total	59.8	100	75.9	127	82.8	138	118.9	199
Eastern Europe (European parts of Russia)	12	100	15	125	20	167	36	300
Southeast Europe (Slovakia, Hungary, Romania, Balkan countries)	9.1	100	11.2	123	12.2	134	20.8	229
Total	21.1	100	26.2	124	32.2	153	56.8	269
European total	80.9	100	102.1	126	115	142	175.7	217

4 Geographies of modernization and of the transition to capitalism

In the last section I concentrated on the dynamics of the pre-industrial Europe and the main contours of the debate about the transition from feudalism to capitalism. What I wish to do in the rest of this section is characterise the Europe in which these processes unfolded and outline briefly the social and geographical trajectories that resulted from the transformations of agriculture, commerce and industry.

At the start of this era western Europe was diversified politically, economically and culturally. There were multiple centres of population in fertile areas in the Po Valley, the Rhinelands, the Paris Basin and Southern England. In these areas of settlement varying syntheses of elements inherited from late Antiquity and Christianity on the one hand and the invading tribes on the other resulted in the creation of demographically and economically varied societies. After the failure of Charlemagne's attempts to establish a unified (Holy Roman) Empire and centralised state (see Figure 3), western Europe was divided into a series of competing Christian nations, which were later consolidated usually as dynastic states in the period from the 1540s to the 1690s and as nation states in 1792 to the 1840s (see Therborn, 1995: 22).

In this world a new society emerged. Called feudal and achieving its most developed form in northern France and areas contiguous to it, this type of society had two fundamental features. First, feudalism was a decentralised political order that arose due to the weakness of the central authorities and their inability to prevent the rise of local warrior aristocracies and that was, accordingly, characterised by fragmented and often weak sovereignty and

political power. (Szücs (1988) insists on the importance of a number of other characteristics of its politico-legal arrangements and of its distinctive culture, religion and value system). Second, feudalism was an economic order involving estate or peasant family production and the appropriation of agricultural surpluses by the warrior class. At the root of this appropriation of surpluses was the establishment by this warrior class of political and economic control over resources (land, forest, game, etc.) and the setting up of monopolies (mills, etc.) which enabled nobles at each level in a hierarchical chain, which descended from monarchs and the Church to dukes, barons and lesser nobles, to grant fiefs (land, revenue from fishing rights, income from a mill, etc.) to its immediate dependents in return for homage and fealty (involving payments, advice and military service).

Agrarian change, the internal dynamics of European feudalism and the development of agrarian capitalism

At first it was the internal dynamics of this system, in conjunction with a sequence of conjunctural events (climatic conditions, the diffusion of diseases, etc.) that resulted in a succession of short-term harvest cycles (caused by climatic conditions and the underdeveloped state of agricultural technologies) and in the long-term secular phases of expansion and recession identified in the last section. At the root of this internal dynamic of European feudalism was, however, not population growth, but the consumption and income requirements of the feudal nobility and the Church and the needs of the state and nobility to finance wars (Bois, 1978). Growth was however extensive in character. As technological progress was limited, growth involved the extension of cultivation onto increasingly marginal land. As a result productivity diminished, as did the rate of surplus extraction, leading to increasing seigneurial pressures on the peasantry, and, eventually, Malthusian-type food and subsistence crises (Dunford and Perrons, 1983: 97-102).

At the same time, a secular transformation of these feudal systems was under way. As Bois (1978) has argued, the waves of expansion were associated with strong tendencies towards greater social differentiation involving the concentration of wealth in the hands of the more prosperous rural dwellers and the proletarianization of small peasants. In this way conditions conducive to the development of agrarian capitalism were created. These processes were held in check by feudal social relations, but these limits were slowly but differentially pushed back.

In Northern France, which was the core of European feudalism, the 15th century crisis led to a consolidation of the position of middling peasants as proprietors, enabling them to resist expropriation, and ensuring the survival of peasant farming (also as a result of the strengthening of small-scale landed property in the French Revolution and in the protectionist Méline laws in the late 19th century) until the middle of the 20th century.

In England, the rights of the peasantry were less well established : strong enough to resist any attempt to reimpose feudal obligations (in part because of the regeneration of England's urban economies and the strengthening of peasant rights), peasants had not established freehold control, leaving it open for lords to convert customary tenure to leaseholds, impose substantial rents and other monetary obligations on the peasant population, create large holdings and develop an improved and rationalised commercial agriculture. By the 1790s great landlords and gentry controlled 80-85 per cent of agricultural land, and the share of agriculture in total employment had declined dramatically, sharply differentiating Britain from most other European countries.

In Eastern Europe the outcome was profoundly different as lords were able to reduce tenants to serfs working on large seigneurial demesnes. In the East serfdom endured until different points in the late 18th and 19th centuries (in Russia it was not abolished until 1861), and was one of the reasons for the relative underdevelopment of East European agriculture (see Anderson, 1974) and the relative importance of agriculture in these societies. Around 1800 36 per cent of the working population were employed in agriculture, forestry and fishing in Britain, compared with some 65 per cent in Prussia. More comprehensive data for peripheral European countries in 1860 and 1910 is set out in Table 2. Even in the early 1930s agricultural employment accounted for 73 per cent of the workforce in Bulgaria, 35 in Czechoslovakia, 52 in Hungary, 61 in Poland and 72 in Romania.

Table 2 Agricultural employment and output in the European periphery, 1860 and 1910 (Source : Berend and Ránki, 1982: 159)

	Agricultural labour force as percent of gainfully employed population		Percentage contribution of agriculture to national income	
	1860	1910	1860	1910
Denmark	55	36	48	30
Sweden	72	49	39	25
Norway	69	43	45	24
Finland	75	65	65	47
Portugal	73	57		
Spain	71	71		40
Italy	72	55	55	47
Greece	88	64	75	75
Hungary	75	64	70	62[1]
Russia	89	80	71	53
Romania	81	75		70
Serbia	89	82		79
Bulgaria	82	75		80

1 Data for 1913

Merchants, markets and the transformation of industry and commerce

Alongside the agricultural economy an artisanal and guild-organised manufacturing sector developed in urban areas. Towns also developed as market places in which merchants organised and co-ordinated local, regional and international trade. These developments in industry and commerce interacted with the development of agriculture : areas of concentrated manufacture depended on the supply of foodstuffs, while areas of more specialised agriculture generated a demand for manufactures, stimulating the growth of the domestic market. At the same time greater specialisation and an intensified division of labour increased productivity.

Merchants played a decisive role in reshaping the map of economic development and in the transition to a capitalist order. The reason why was not simply that merchants encouraged the commercialization of economic activities but also that merchants made profits by selling goods and services at a higher price than they bought them, and through the repetition of this cycle accumulated commercial capital. In feudal societies merchants were dependent on

the feudal order: to maximise differences in prices they sought monopolies and privileges from feudal authorities, and there was always a tendency for merchants to invest in landed property, to exploit ground rents and 'refeudalise' themselves. The accumulation of commercial capital was nonetheless a decisive factor in the development and transformation of industry and commerce.

Proto-industry and the transition to capitalism

At the start of the 16th century uncontested leadership in manufacturing lay with Northern and Central Italy, the southern Netherlands and the areas near Nuremberg and Augsburg in southern Germany, though in subsequent decades the northern parts of the Netherlands along with England and France moved to the forefront (Kriedte, 1983: 32-3).

At this point in time a movement of industry into the countryside had been set in motion in England, the southern Low Countries and southern Germany. This transformation and movement of industry into the countryside (which is called protoindustrialization) was a result of the initiative of merchant capitalists. Commencing at the end of the Middle Ages, it accelerated into the 16th and 17th centuries and lasted until the 19th, though it was also shaped by industrial cycles. Industrial cycles followed agricultural cycles except that in upturns prices rose more slowly and in downturns they fell less rapidly (as industrial production is not subject to diminishing returns and demand for industrial output is more elastic). A consequence was that industry was subject to irregular demand with sharp short-term falls in demand during agricultural crises caused by poor harvests.

Faced with these cyclical conditions, merchants were anxious to increase the responsiveness of output to demand conditions without incurring significant fixed costs. At the same time there was a desire to escape guild control, undercut urban monopolies, avoid urban taxes and levies and reduce wage costs. To achieve these ends, merchants sought the employment of cheap rural labour in stock farming areas, which was dependent as a result of agrarian change on supplementary sources of income, into production for distant markets (often on a part-time basis). This process was associated with major changes in the map of industrial production and demographic growth in Europe and in the organisation of industrial production (with two main types of system predominating : a *Kaufsystem* in which independent artisans sold their produce to merchants and traders in public markets, and a *Verlagssystem* in which urban merchant entrepreneurs put work out to dependent rural workers).

There were, however, disadvantages associated with these rural cottage industries as well as advantages. Included were the absence of supervision of productive work, the increase in circulation (including transport) costs associated with the extensive nature of growth, the irregularity of natural energy sources, the non-availability of some workers during harvest periods and the need to increase wages as and where supplementary sources of income were eroded and wage dependence increased. In the 18th century, these disadvantages started to outweigh the advantages in some areas, with the result that rural proto-industrial activities started to give way to the factory system, although, as new technologies that were subsequently introduced had sectorally unequal effects on productivity growth, the growth of mechanised factory output at first led to an expansion of cottage system in those sectors in which productivity did not at first increase.

Commerce and the development of a succession of world economies

Adventurers, and companies of merchant capitalists and financiers played a major role in the development of a series of international trading systems and 'world economies' centred successively on Italy, the economic centres of the Spanish and Portuguese Empires, Amsterdam and Britain. In the 15th century, as Ottoman expansion pushed against Europe's eastern borders, Portuguese mariners sailed around Africa to India, and in 1492 Columbus set sail for America, initiating a second phase of European overseas expansion. (At the same time Russia expanded to the east with the Cossacks making their first expedition to Siberia in 1581-4). With this expansion Europe's centre of economic gravity shifted from Venice to the the north, at first to Antwerp, which functioned as an outpost of the Spanish state (along with Genoa and merchant-banking centres in southern Germany). After a brief economic renaissance in Italy during the conflict between the Dutch United Provinces and the Spanish, the economic centre of the European world economy moved to Amsterdam. Amsterdam, located along Europe's vital axis, remained the hegemonic centre of the European world economy for nearly two centuries. When it declined towards the start of the industrial era, leadership passed to Britain.

Each of these world economies was composed of interdependent but unequally developed geographical zones that made up a core-periphery structure within which there were relations of unequal exchange. In 1650, for example, the centre was Holland and Amsterdam along with the area between Cologne, Paris and London where agriculture was most developed with enclosure, three-field rotations and specialised horticulture, and where cities were important as centres of trade and home of leading international companies. Much of the rest of Europe was made up of intermediate or secondary zones : the Baltic and North Sea states, the rest of England, the southern Rhine and the Elbe regions of Germany, the rest of France, Portugal, Spain and Italy north of Rome. As countries these areas were significantly militarised and politically independent. Economically these areas were less developed than the core and sometimes dependent : agricultural progress was slower, and trade was sometimes in foreign hands (as in the Baltic where it was under Dutch control with intermediate roles for the old Hanseatic towns or in Spain). Scotland, Ireland and Scandinavia to the north, Europe east of a line running from Hamburg to Venice, Italy south of Rome and Europeanised America were semi-peripheral and peripheral. Of these, the areas that were peripheral were often politically dependent, were frequently characterised by the existence of slavery and forced labour (much of the New World was based on slavery, and the outer reaches of Europe were a second serfdom zone) and, in the case of the outer peripheries, were involved in the production of goods of high value but low weight such as silver and gold, sugar and spices, furs and ivory (see Braudel, 1977: 89-94; Nolte, 1992: 29-32).

5 Modern industrial development

The outcome of these developments was a progressively more rapid accumulation, especially in some of the core areas of Europe, of competences in science, in military, industrial and agrarian technologies and in the organisation of production, trade and finance on the one hand and an accumulation of tangible material and financial wealth on the other. Together these processes laid the foundations for a rapid acceleration of economic growth in the First Industrial Revolution, dramatic population growth as Malthusian constraints were lifted in the First Demographic Transition and a new phase of European overseas expansion for, as Nolte (1992: 34-5) noted: 'Militarily it now became possible to conquer the interior

of continents at relatively low cost; steamships, the telegraph and railroads made logistics possible across deserts and jungles, the rifle gave the firepower of a dozen musketeers to a single man, and whatever military problems might have remained were solved by the machine gun'. Military exploits and colonial expansion afforded government-financed markets for European exports. At the same time Europe's cheap industrial products displaced the former industrial exports and semi-peripheral and peripheral countries (such as Indian textiles or Russian iron) leading to deindustrialization in these countries and increased reliance on the export of raw materials (see Table 3 for indicators of the productivity advantage associated with the mechanisation of cotton spinning) . Elsewhere accumulated wealth and the products of new export-oriented primary goods production were exchanged for European industrial products integrating large sections of the globe into a European-dominated international division of labour : to take just one example, Lancashire's cotton mills were supplied with cotton by the American Cotton South, Egypt and Uganda, while England exported Indian cotton and later machine-made Indian textiles to China.

Table 3 Labour productivity in the cotton industry : operator hours to process 110 pounds of cotton (Source : Jenkins, 1994 : xix)

Indian hand spinners (18th century)	50,000
Crompton's mule (1780)	2,000
100-spindle mule (circa 1790)	1,000
Power-assisted mules (circa 1795)	300
Robert's automatic mule (circa 1825)	135
Most efficient machines in 1990	40

Associated with certain technical innovations, changes in industrial organisation, marketing and finance, investments in new infrastructures (especially canals) and rapid increases in output in a small number of leading industries (cotton textiles and ironmaking) (see Figure 9) early instances of modern industrialization were concentrated in a relatively small number of European regions, of which most were in Britain.

The geography of early industrialization

Among the factors that explain the geography of early industrialization are the existence of coal and mineral resources and water as a source of power. At the same time investment and growth presupposed the availability of money wealth transformable into capital to purchase factories, machines and materials on the one hand and the labour power of a dependent wage earning class on the other. (As a result industrial production ceased to be 'a mere accessory to commerce' (Marx, 1981: 440-55) and made commerce its servant). Also essential was the existence of certain essential general conditions of production (investments in transport, a supportive legal framework, etc.) and access to potential markets. Once established. the development of external economies through the creation of new infrastructures, supply industries, markets, knowledge of markets and skills played an important role in an area's survival and further development.

In Britain in the 1760s to the 1790s there were some ten small islands of industrialization (Pollard, 1981: 14-21 and Figure 10). Of these, four declined soon after the major advances with which they were associated had occurred : Cornwall which specialised in tin and copper mining and smelting; Shropshire with its early coal and iron industries; North Wales

with coal, slate, iron, lead and copper industries; and Derbyshire which was an early centre for the cotton textile industry. Tyneside and Clydeside had emerged as centres of modern industry but survived as a result of later structural change. South Staffordshire was an important centre of coal, glass, chemical, metals, engineering and armaments industries. The two leading areas were, however, the West Riding with its specialisation in the woollen and worsted industries, and south Lancashire which was a centre for cotton textiles along with metal-working and chemicals. In addition London was an important industrial centre.

Figure 10 Europe's major industrial areas in 1815 (Source : Pollard, 1981: xiv)

Outside of Britain. there were a number of significant industrial areas in inner Europe. The most important concentrations were in the Sambre-Meuse and Scheldt valleys in Belgium and in northern France. In Belgium there were important coal, iron, woollen, cotton (in Ghent) and linen industries, while in northern France coal, woollen and cotton textile and iron industries predominated. In addition there were a series of modern industrial areas along the Rhine : in Rhineland-Westphalia there were iron and textile industries, while the Ruhr further north developed later around the extraction and use of coking coal; further upstream Alsace had a traditional charcoal iron industry and a cotton textile sector; while in Switzerland the area from Basle to Glarus was a centre of cotton, silk twisting and weaving and ribbon weaving industries which were later replaced by chemicals and precision engineering. Further east Saxony and Lusatia had a powerful textile industry as well as metallurgical industries in the proto-industrial/manufacturing stages. In the Industrial Revolution, textiles, tobacco, railway engineering and printing were important. Silesia was a centre for coal and iron industries but its real expansion occurred in 1850s and 1870s as in the case of the Ruhr. Normandy in France was an area of some potential with a significant cotton textile industry, but it fell behind. In the Lyon, Saint-Etienne and Upper Loire areas of France, there were textile and heavy industries : a silk industry in Lyon, textiles and metallurgy near St Etienne and coal and iron in the Upper Loire valley. In addition, there were a number of smaller concentrations of modern industry in the Saarland with its coal, Württemberg with its textile industry and Le Creusot which was a centre of iron production. Finally the cities of Paris and Berlin were, alongside London, important centres for industries needing access to large urban markets (see Pollard, 1981).

As this brief account of the early geography of industrialization indicates, the impact of the industrial revolution was very uneven. Geographically it was uneven with wide variations in specialisation and in rates of growth and/or decline. Sectorally there was an unevenness in the development of industrial technologies and the means of transport which was one of the reasons for the initial very localised nature of modern industrial development. In terms of methods of work organisation it was uneven in that the spread of new methods of organisation saw the expansion of factory production coincide with an expansion of employment in the domestic system.

Phases of industrial growth

This wave of early industrial growth was, however, just the first of a sequence of phases of industrialization (see Figure 9) and this geography was just the first of a series of geographies of modern industrialization. Growth itself was, in other words, temporally uneven in that sustained phases of rapid growth alternated with enduring phases of crisis marked by slackening growth, stagnation and even contraction. As Figure 9 shows, the first of these crises of slower growth occurred in the period after the Napoleonic Wars which

saw, depending on the industrial or agrarian character of the country, the first crisis of industrial capitalism or the last (Malthusian) crisis of the *ancien régime*. The second occurred in the Great Depression of the late nineteenth century at the end of the Great Victorian Boom that followed the reforms of the 1830s and 1840s, the third in the period between the First and Second World Wars after the Imperialist Boom that led up to the First World War, and the fourth in years since the end of the 1960s which marked the end of the 'golden age' of fast growth and full employment (the so-called Trente Glorieuse) that followed World War Two.

As I suggested earlier, an important way of making sense of these temporal variations and of the sectoral, organisational, and geographical variations that accompanied them is to acknowledge that historically industrialization involved the working out of a series of phases of accumulation characterised by changes in the nature of the dominant technologies, the leading sectors, the modes of organisation of production and exchange, the ways of life and modes of consumption of wage earners, the character, role and functions of institutions and governance structures, the nature of the international order, the geography of economic activities, the relative standing of national and regional economies and the location of global hegemony and leadership. According to this type of explanation phases of stable growth are rooted in the emergence of a sequence of new development models often centred on fundamental transformations of the preceding economic and social order. These new development models take shape in phases of turmoil, crisis and rupture when older socioeconomic orders failed on the economic front and were rejected on the political and social fronts and when competing social forces agree on new compromises and new world views (see section 2 and Dunford, 1990; 1994). To give just one example, the roots of the Fordist model lay in the inter-war struggle between social democratic and New Deal politics, Stalinism and Fascism each of which sought to resolve the contradictions of a liberal order that had failed and whose emphasis on the centrality of a market rationality was, as Polanyi (1944) argued in *The great transformation*, one of the major causes of the savagery characteristic of the first half of the twentieth century.

6 Catching up and falling behind : uneven development

In the pre-industrial epoch differences in gross marketed output per capita between the least and most developed countries in the world were of the order of only about 1 to 1.6 (Bairoch,1981: 14). As I have argued early modern industrialization was confined to a relatively small number of areas. After 1820, however, rates of growth accelerated more generally in the western half of Europe and especially in a number of new countries (United States, Canada, Australia and New Zealand) settled by European emigrants (see Maddison, 1995 and Table 4). As growth accelerated, economic disparities increased sharply with the result that increased wealth coexisted with great deprivation.

Table 4 Comparative economic development : real GDP per head at Purchasing power standards as a percentage of US (Source : elaborated from data in Maddison, 1995, 110-266)

	GDP per head as percentage of US											GDP multiplier			
	1820	1870	1900	1913	1929	1938	1950	1973	1979	1989	1992	1820-1913	1913-1950	1950-1973	1973-1992
12 West European countries															
Austria	101	76	71	66	54	58	39	68	73	75	80	0.65	0.59	1.75	1.17
Belgium	100	107	89	78	72	77	56	72	73	75	80	0.78	0.72	1.28	1.11
Denmark	95	78	71	71	71	90	70	81	80	81	85	0.75	0.98	1.16	1.05
Finland	59	45	40	39	38	57	43	65	65	77	68	0.66	1.12	1.50	1.05
France	95	76	70	65	68	72	55	78	80	80	83	0.69	0.84	1.43	1.07
Germany	86	78	77	72	63	84	45	79	83	83	90	0.84	0.62	1.77	1.13
Italy	85	60	43	47	44	53	36	63	68	72	75	0.56	0.76	1.75	1.20
Netherlands	121	107	86	74	80	84	61	77	77	74	78	0.61	0.82	1.26	1.02
Norway	78	53	43	43	46	64	52	62	72	77	81	0.55	1.21	1.19	1.32
Sweden	93	68	63	58	56	77	70	81	80	81	79	0.63	1.21	1.15	0.97
Switzerland		88	86	79	90	103	93	108	96	98	98		1.18	1.16	0.90
United Kingdom	136	133	112	95	76	98	72	72	71	75	73	0.70	0.75	1.01	1.01
Arithmetic average	98	86	76	70	63	77	54	74	76	78	81	0.71	0.77	1.38	1.09
4 New countries															
Australia	118	155	105	104	74	92	75	75	74	76	75	0.88	0.73	1.00	1.00
Canada	69	66	67	79	69	70	74	82	88	91	84	1.14	0.93	1.12	1.03
New Zealand		127	105	98	77	106	89	76	67	65	65		0.91	0.85	0.85
United States	100	100	100	100	100	100	100	100	100	100	100	1.00	1.00	1.00	1.00
Arithmetic average	98	99	98	99	96	97	97	97	97	97	97		0.98	1.00	1.00
5 South 'European' countries															
Greece				31	35	44	20	47	49	47	48		0.67	2.30	1.02
Ireland	74	72	61	51	42	51	37	42	44	47	54	0.70	0.71	1.15	1.28
Portugal		44	34	26	22	28	22	46	43	48	52		0.87	2.05	1.13
Spain	83	56	50	42	43	33	25	53	51	54	58	0.51	0.59	2.10	1.10
Turkey				18	14	22	14	16	18	18	21		0.74	1.21	1.24
Arithmetic average	67	56	30	33	31	31	21	36	36	36	38	0.49	0.64	1.72	1.06
7 East European countries															
Bulgaria				28	17	26	17	32	34	29	19		0.61	1.84	0.59
Czechoskovakia	66	47	42	39	44		37	42	42	40	32	0.60	0.93	1.16	0.75
Hungary		52	41	40	36	43	26	34	34	31	26		0.66	1.30	0.78
Poland					31	36	26	32	32	26	22			1.26	0.68
Roumania					17	20	12	21	22	18	12			1.70	0.57
USSR	58	42	30	28	20	35	30	36	35	32	22	0.48	1.06	1.23	0.59
Yugoslavia				19	20	22	16	26	31	27	18		0.83	1.58	0.71
Arithmetic average	55	39	23	24	23	32	27	35	34	31	21			1.27	0.62

Industrialization and inequality

Table 5 records trends in inequality. The indicator used is the coefficient of variation of Gross Domestic product per head. (The data are recorded in Table 4 as percentages of the US figure. As there are missing values in the sample, Table 5 also records the number of observations). Column two of Table 5 shows that there was a sharp increase in inequality in Europe and the New World up to 1870 with a further increase up to 1913. The causes were twofold. First, early (Britain and Belgium) and late industrializers established a large lead

over the rest of the continent. As the coefficients of variation for Western Europe show, an initial increase in inequality (from 21.6 to 31 per cent) was reversed as late industrialisers started to catch up with the early leaders. As columns for Europe as a whole show, however, that disparities in the wider Europe increased sharply as Eastern and Southern Europe were left behind (with the coefficient of variation increasing from 24.1 in 1820 to 40.8 in 1950). Second, there was an increase in inequality in the wide group (Europe plus the new countries) because of the faster relative growth of the new countries : North America enjoyed a spectacular leap into a position of industrial superiority after the early 1890s, while Canada surged ahead in the years before the First World War (from 67 to 79 per cent of the US figure) as a result of the prairie wheat boom (see Table 4).

Table 5 Trends in international inequality in Europe and the New World, 1820-1992 (Source : elaborated from data in Maddison, 1995, 110-266)

Year	Europe and the New World		Western, Southern and Eastern Europe		Western and Southern Europe		Western Europe	
	CV[1]	Number	CV	Number	CV	Number	CV	Number
1820	23.7	18	24.1	15	21.5	13	21.6	11
1870	39.7	22	35.4	18	32.6	15	31.0	12
1900	37.4	22	37.1	18	33.1	15	30.6	12
1913	43.2	25	40.7	21	33.4	16	25.1	12
1929	45.7	27	46.2	23	33.7	16	25.2	12
1938	43.6	26	44.7	22	33.1	16	21.1	12
1950	52.8	27	51.1	23	40.8	16	28.9	12
1973	37.6	27	39.0	23	24.5	16	16.5	12
1979	35.8	27	36.8	23	21.8	16	10.7	12
1989	38.7	27	40.3	23	20.6	16	8.8	12
1992	44.2	27	47.5	23	19.3	16	9.6	12

1 Coefficient of variation of real Gross Domestic Product per head at Purchasing Power Standards

Unequal development and late industrialization

At the root of these disparities is the inequality inherent in the dynamics of capitalist systems on the one hand and the phasing of industrialization and in particular the process that Gerschenkron (1962; Sylla and Toniolo, 1991) has called late industrialization on the other. Gerschenkron's thesis contrasts sharply with those of economists such as Rostow (1961) who argued that there is a single path to industrialization which involves a series of stages (and prerequisites) through which all societies must pass and along which each society can be located at any moment in time. For Gerschenkron industrialization is a process which exhibits certain uniformities, but whose characteristics vary with the degree of relative backwardness of a country at the point at which it starts to industrialise, where the concept of backwardness embraces a country's wealth, its endowment with factors of production such as skilled labour, up-to-date technology, infrastructure, etc. and the nature of its ruling class. In contrast to Rostow, Gerschenkron believed that countries that were backward could establish substitutes for the preconditions for growth as it had occurred in countries that were earlier to industrialise and that these substitute conditions resulted in variations in the tempo and character of industrial growth.

Gerschenkron characterised the situation in mid-19th century Europe in the following way. First the degree of relative backwardness increased from the north-west to the east and southeast. Second there were lags in the timing of industrialization with growth accelerating in Germany in the 1840s, in Hungary in the 1870s and in Italy and Russia in the 1880s. Third the characteristics of these industrialization processes differed from the British model. Fourth the determinants of industrialization also differed especially in relation to (1) the role of joint stock industrial credit banks (especially in Germany) and the state (especially in Russia) in the supply of industrial finance and the promotion of industrial growth and (2) the importance of ideologies of industrialization. The more general implication is that the pathway to industrialization depends not just on general mechanisms but also on a range of country-specific variables which include the ratio of agricultural labour in the workforce which was highlighted earlier in this chapter

An explanation of these differences in the timing and nature of modernization lies, to an extent that orthodox accounts such as Rostow's and to a lesser extent Gerschenkron's fail to acknowledge, in the trajectories of social and institutional relations. Attention has already been paid to the ways in which the interaction of the evolution of capitalist social relations and the forces of production underpinned the map of early industrialization. Once under way, the industrialization and modernization of the west (along with the political changes set in motion by the French Revolution) created a fundamentally new framework of opportunities, constraints and challenges for the more backward, peripheral countries of Europe (see Berend and Ránki, 1982: 21-7). Two aspects of this challenge were particularly important. First, the industrialization and urbanization of the core countries led to an immense increase in the demand for food and raw materials. In the face of these trade opportunities the more backward countries were encouraged to join world trade as exporters of raw materials, though the extent to which they could do so was seriously circumscribed by a range of internal obstacles to capitalist development (a labour force of serfs and sharecroppers. the absence of a modern credit and educational system, the lack of a unified national market, and an immense range of other obstacles put up by the ancien regime). Second the modernization of the west posed a serious political and military challenge to the great power status or independence of a number of countries of the periphery, while for others soverignty and a weakening of ties of dependence were seen as central preconditions for socio-economic transformation. This combination of economic self-interest and power politics were powerful factors in prompting ruling elites to implement processes of political and institutional reform 'from above' (largely in 1820-70) which, in different ways and to different extents, opened the way to partial and incomplete forms of capitalist development. An important economic consequence was industrial growth though industrialisation involved special difficulties due to the weakness of earlier proto-industrial growth and the difficulties of infant industries faced with competion from already established industrial nations. Indeed it was these obstacles, together with the more scientific foundation of later industrialisation, that lay at the root of the more interventionist role of the state and the development of industrial credit banks noted by Gerschenkron.

Figure 11 Europe's major industrial areas in 1875 (Source : Pollard, 1981: xiv)

As Berend and Ránki (1982: 28-43) point out, the differences in the timing and nature of the development of a capitalist economic and political framework were striking. In the Scandinavuan countries, which had long lost their roles as great powers, the feudal order disintegrated step by step through the 17th and 18th centuries (in ways in Sweden and

Denmark that transformed the peasantry into freehold farmers with significant implications for the later trajectories of these countries, while in Norway the development of strong self-sufficient rural communities had parallel impacts).

In the Mediterranean, the situation differed in several ways. Most important was the fact that even though earlier commercial successes had created space for bourgeois enterprise, the ancien regime was particularly powerful, with extremely influential landowning aristocracies. In Iberia and Italy, the development of a capitalist economic and political order involved a series of advances and reversals starting with Napoleon's conquest (which led, for example, to the abolition of serfdom in the south of Italy) and unfolding (in 1820-61) through a sequence of revolutionary insurrections and national struggles that led to reforms which were subsequently reversed after defeats at the hands of reactionary forces. An important consequence was that that the change that did occur involved a modernisation of the edifice of the ancien regime rather than its complete overthrow (which itself was reflected in the handling of the land question and the preservation of great estates in the south of Spain, Italy and Portugal). Another was the limited degree of 19th century industrialisation especially in Iberia and the south of Italy. In Spain the leading role was played by the textile industry located mainly in Catalonia. Spain's enormous deposits of iron ore and non-ferrous metals was limited in its usefulness by the lack of coal. Domestic smelting did not start until the 1880s, and as late as the early 20th century virtually all of its iron ore was exported. In Greece the situation was less complicated in that wars of independence against the Turkish Empire went hand in hand with the struggle for transformation to market capitalism and representative politics. Industrial growth was, however, extremely limited. Growth depended however largely on agricultural exports, though there was (as in the case of Portugal) a relatively large number of jobs in trade and shipping.

In Central and Eastern Europe there were a number of paths : a Prussian, Russian and Polish path of reform from above; a Hungarian path involving revolution and the war of independence of 1848-49; and the paths arising from the struggle of Serbia and Bulgaria to shake off Ottoman rule and the modernization of the Romanian principalites. These paths had however a number of features in common in that they involved reform from above, failed to solve the land question and the problems of the peasantry, were associated with a slow of development of representative democratic institution, and were strongly shaped by nationalism. The consequent processes of transformation lagged far behind those of the core countries of Europe, though by the end of the 19th century a free labour force, freedom of enterprise, security of private property and a credit system were largely in place. Countries such as Hungary and Russia nonetheless only assimilated a subset of modern technologies in a few areas of economic life. Most spheres of economic activity remained very backward, and as industry accounted for a very small fraction of national wealth and income, 'even rapid gains in this sector did relatively little at first for total output or the standard of living' (Landes, cited in Berend and Ránki, 1982: 153-4). Still worse-off were the countries of the Balkans which proved largely incapable of moving beyond their pre-industrial state.

As a consequence the advantages that earlier capitalist modernization and industrialization had given the core countries of Europe relative to the periphery by the middle of the 19th century were largely reinforced in the next fifty years : while Scandinavia was well on the way to joining the capitalist core, and northern Italy, Hungary and parts of Russia had started on the road to industrialization, the least developed countries of Eastern Europe, the

Mediterranean (with the exception of Northern Italy) and the Balkans 'remained in, or were pushed to, the periphery of the European division of labour' (Berend and Ránki, 1982: 159).

Modernization and emigration

Economic change and the emergence of wide disparities in economic performance fuelled a wave of mass migrations from Europe and in particular from some of its peripheries with millions of those who possessed the minimum resources required to pay for their passage to the Americas choosing emigration as a path out of poverty and deprivation. At first the highest rates of intercontinental emigration were from Ireland (14.0 per thousand in 1851-60, 14.6 in 1861-70, 6.6 in 1871-80, 14.2 in 1881-90) and Scotland (5.0, 4.6, 4.7 and 7.1 respectively), though England (2.6, 2.8, 4.0 and 5.6) and Norway (2.4, 5.8, 4.7 and 9.5) also had high rates (Baines, 1991: 7-11). After 1880 Germany (which included the Prussian parts of present-day Poland), Switzerland, Sweden, Denmark, Italy, Spain, Portugal, Austro-Hungary and Russia (including Russian Poland) joined the significant proportionate/ absolute exporters of people.

In 1815-1930 more than 50 and perhaps 60 million emigrated mainly from (the peripheral parts of) Britain (11.4 million), Italy (9.9 million), Ireland (7.3 million), Spain and Portugal (6.2 million), Austro-Hungary (5 million), Germany (4.8 million) and Russia (3.1 million) to the United States (32.6 million), Argentina (6.4 million), Canada (4.7 million), Brazil (4.3 million) and Australia (3.5 million). This migration had a major impact on the distribution of the labour force, GDP per worker and wages, since the labour content of these migrations was very high, though it had a smaller impact on GDP per capita. The reason why is that while emigration will raise GDP per head by reducing the population and may raise GDP per worker by offsetting diminishing returns in agricultural production, its selective character will work in the opposite direction, reducing output per capita, by taking away a disproportionate share of the labour force.

20th century economic growth

As Table 4 shows, the core west European economies continued grow more slowly than the economies of the New countries until 1929, and then, after an improvement in their relative position in 1929-38, suffered a further setback as a result of the Second World War. After 1950, however, in the 'Trente glorieuse' (the thirty-year 'Fordist' golden age that followed World War Two) and in the subsequent phase of crisis (marked by a halving of rates of productivity and output growth in developed capitalist economies) Western Europe closed this gap.

The 'South' European countries, which started in second position in 1820, and Eastern Europe grew much more slowly than Western Europe until well into the 20th century. The first group of countries to start to catch-up were the Soviet Union in the 1930s and the Communist countries in the 1950s and 1960s. The 'South' European countries started to make up for their relatively slow growth later, after 1960. As the 'South' did nor suffer a relative slowdown of the same magnitude as that experienced in the Communist world in the late 1970s and 1980s, and did not suffer the dramatic collapse that followed the fall of Communism, in 1992 'South' European economies, while less developed than the core West European economies, had restored their substantial lead over the east, creating the map of inequality with which this chapter started.

7 Conclusion

In the last section I argued that modern industrialization has witnessed a reproduction of inequalities whose roots go far into the European past. At the same time there have been significant shifts in the map of European economic development. In the second half of the 19th century the list of industrialised countries was enlarged, and within this larger group inequality diminished as newly industrialising countries caught up with, and sometimes overtook, the early leaders (such that economies that had assumed a leading role at one stage in the history of industrialization, such as the United Kingdom and, subsequently, the United States, did not succeed in retaining the dominant positions that had been achieved, and, in the case of Britain, slipped down the hierarchy of nation states). But disparities between the economies that had been industrialised and the non-industrialised world increased very sharply at first, and continued to widen until the end of the Second World War. After 1945 Western Europe and Southern Europe closed the gap on the United States (as did Japan and later Taiwan, South Korea, Thailand and other Asian countries). In the case of the Communist world, after 1929, in the case of the Soviet Union, and after the Second World War, in the case of the countries that fell under Soviet influence, convergence occurred. In the early 1970s, however, slower growth and divergence set in.

That section outlined the map of early industrialization, indicated how the map of inequality had changed and showed that industrialization involved a series of alternating cyclical phases of rapid growth and development and crisis with crises representing transformations within capitalism in the west and a temporary transition to Communism in the east.

More generally, I have argued that the geographies of modern Europe are a complex synthesis that emerges out of the articulation and superimposition of a sequence of structural and cyclical phases of development one upon another. At each stage the trajectories of Europe's urban and regional economies depended on choices that were made, but these choices were always constrained by circumstances inherited from the past, where these circumstances were themselves a consequence of past choices and the structural constraints by which they were shaped. The geographies that resulted indicate that there are places whose inhabitants have managed to act in ways that have enabled them to survive over quite long periods as major concentrations of activity and to remain relatively prosperous. At the same time there are other communities that were once active and thriving, owing perhaps to an extraordinarily rapid development of a narrow range of activities, that were subsequently converted, sometimes quite quickly, into devastated, derelict, and depressed areas. Yet other areas have been locked for long periods of time into states of persistent relative poverty and underdevelopment. What underlies these differences are not simply processes of unequal development with their roots in mechanisms of differentiation (divergence) and equalisation (convergence) but in many cases simultaneous and sequential over- and under-development. While these processes reflect the interrelationships between the resource endowments of different places (which are themselves a result of previous development and not therefore 'natural') and the opportunities offered by wider economic and political contexts, the choices made are also strongly dependent on technological, productive, institutional and political structures and arrangements. The implication is that an appreciation of the changing geographies of Europe depends closely upon an analysis of the relation between spatial change and the changing articulation of productive forces and social and institutional relations of production.

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