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The Performance of the European Economy in Historical Perspective

Felix Butschek

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The European economy was of central importance for the worldwide economic development. In pre-industrial times all cultures were agrarian with few cities and similar income. This situation changed fundamentally with the industrialisation of Europe, which caused great income differences. This process started already in antiquity in Greece with a new type of man, acting in democratic structures and continued with the Roman rule of law and the autonomous medieval cities. With Humanism, Renaissance and finally Enlightenment there arose the scientific revolution which engendered technical progress. Given these preconditions Industrial Revolution started about 1800 and increased Europe's economic and technical capacity which caused its dramatic political predominance. In 1900 nearly 70 percent of world GDP was provided by Europe and its overseas offshoots. In spite of two world wars this situation did not change fundamentally, only the share of the offshoots rose dramatically. Beginning with the 1960s the secular process of catching-up set in. Most extra-European cultures started also industrialisation and increased their income. This development is supposed to continue and to reduce regional income differences. As a consequence the share of Europe in world GDP is expected to fall in future. But there remains the fact that the process of industrialisation was created by Europe.

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JEL: Economic history, economic development, European economy, economic growth

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Table of contents Page

1. Introduction[1]

In recent times Europe faced a variety of new challenges. Concerning foreign affairs there arouse the problem of the Ukrainian state, with the imminent danger of separation, partly due to Russian interference. Not less important proved the result of the elections to the European Parliament. It brought for the first time considerable success for parties, which were inimical to the European Union generally and especially to its economic policy. One of the reasons for this deplorable development is attributed to the slack economic performance of the European economy in more recent times. Although it was possible to overcome the financial and credit crisis of the West during the first decade of the new millennium and to stabilize the situation of the southern member states of the European Monetary Union, there remained the comparatively slow growth of the European economy with the consequence of rather high unemployment.

This problem was recognized by the EU since several years, because it developed in 2000 the so called "Lisbon Program", which envisaged making the European economy to one of the "most competitive, dynamic and science-based economic regions". This ambition remained completely unsuccessful. So the European Commission suggested by the European Union's Seventh Framework Programme for Research and Technological Development, enticed research projects to analyse the situation and to elaborate possible improvements. As the propositions of the Austrian Institute of Economic Research were accepted, it started, together with 33 other European institutes and individual scientists, the study "Wealth, Welfare, Work for Europe" (http://www.foreurope.eu/) with far reaching scope. The analysis should not only regard the economy and social problems, but also ecological and institutional matters.

This approach seems to be rather fruitful, because it provided until now a great number of valuable papers with relevant insights, which will be finally merged into a compact study with policy recommendations (see Aiginger et al., 2014).

Although in that project all relevant questions will be discussed in detail, it seems to be quite useful, to shed, as background information, some light on the historical performance of the European economy, the more as its development showed a unique phenomenon. It was Europe and only Europe, which set in motion the Industrial Revolution, that caused the most fundamental and radical change of world societies since the Palaeolithic age. There arose the "European Miracle" as Eric Jones phrased it (1987). At present this process has embraced nearly all countries of the world, of course with considerable differences. Many, especially Asiatic, regions have managed to catch up the Western advantage completely, others are still under way. In any case it seems to be important to know the mechanics of this process, when it started, how it proceeded and which preconditions were necessary to set it in motion (Butschek, 2002, 2006).

[1] I am very much indebted to Fritz Breuss and Gunther Tichy for having revised this paper.

2. The European Economy in the Prehistorical Society

Since the Palaeolithic revolution, that means, since human beings changed from the position of hunters and collectors to sedentary peasants, the economic structure of the societies remained fundamentally always the same: the overwhelming majority of people were working on the basis of self-sufficiency in agriculture. The small surplus of the production was primarily acquired by the ruling classes in the few cities. And this situation persisted basically until the Middle Ages (Crone, 1992, p. 24).

Naturally there existed considerable differences according to times as well as regions. In the course of the historical development first areas of more or less well-working states arose in the river valleys of the Nile and the Indus, and extended later to the Middle East. They were followed on the fringes by new cultures as India, China and Greece. This meant that people in the quoted regions could principally calmly perform their work, that a sort of legislation provided a minimum of internal security and also shelter against foreign perils. Certainly not permanently, because there occurred frequently raids by barbarian people, who themselves hardly knew agrarian production. These were either expelled or integrated into the regional culture. Also handicraft developed slowly as well as some basic trade. As all these cultures knew writing, reached considerable achievements in sciences and arts, they were characterised as High cultures.

What should be explained by this description is that during these centuries, in spite of a fundamentally unchanged economic structure, there occurred economic growth, totally as well as per capita. This resulted by the existence of organised states, which provided not only internal security for economic activity, but created an atmosphere, which fostered also technical progress. On the one hand agricultural tools were improved; crops could be taken from other cultures. But of course it should always borne in mind, that this amelioration of production never can be compared with "Modern Economic Growth" as defined by Kuznets for capitalist development (Kuznets, 1966). What is described here is an improvement, which took place in centuries or even in millennia. The contemporaries realised economic well-being hardly by income growth, but by peaceful periods. And this very limited expansion did not alter the basic structure of all these economies with the overwhelming importance of the agricultural sector and a very small urban area.

For this prehistoric period it is hardly possible to assess the economic performance of the European economy, simply because this notion did not exist. First of all, the Northern cultures developed later than those of Middle East, further this continent represented during this time an area, which was neither economically nor politically coherent. High cultures arose around the Mediterranean Sea, and this region comprised not only European territories, but such of Asia and Africa. The northern parts of today's Europe were inhabited by Celtic and Germanic tribes with a very low cultural level. And this was of course also true for agricultural production, as Jones it vividly describes: "In pre-modern times the most productive farming system had been chiefly in the alluvial valleys and deltas and monsoon coastlands of Asia.

From prehistoric times until the last century or two, productivity per acre was higher than in Europe. The main river valleys from the Nile eastwards were very densely settled and their irrigated agricultures had long sustained complex civilizations. Outside the riverine and estuarine areas, a satellite scanning the world for crops would have found little more than a scatter of arable 'islands' in a sea of forest. This was definitely the case in Europe, which until recent centuries was immensely wooded" (Jones, 2002, p. 56).

Nevertheless it was precisely the Mediterranean region, where the first roots of the process towards the Industrial Revolution could be found. It was the Greek culture, which differed basically from nearly all others.

3. The Road to the Industrial Revolution

3.1 Antiquity – the Cradle of European Individualism

Although the structure of the Greek economy differed not fundamentally from the other cultures, with the overwhelming importance of agriculture, there existed an enormous difference in the social structure. Whereas in the latter regions a ruling class had gained absolute political power, the Greek policy showed a fundamentally other picture.

The starting-point of European development lies in the size and structure of states. The rugged Mediterranean landscape, which included numerous islands, permitted the emergence of only small political units of a mostly urban nature. These city states were under either oligarchic or democratic government, i.e. the citizenry was involved to a greater or lesser extent in the formation of political will. Beyond it the military necessities – the "phalanx" required the compact cooperation of infantry men (hoplites) – fostered a rather egalitarian structure (McNeill, 1963, p. 198). On the other hand the small-scaled political communities of Greece allowed citizens, who came into conflict with their respective ruling authorities, to move on into other states.

The Greeks developed already well-defined property rights ensuring free disposition over land, capital and (in the form of slaves) labour. This enabled the growth of a money economy with agricultural and craft-based production and already considerable trade (North, 1988, p. 107). A remarkable degree of legal security reduced transaction costs and provided the conditions for economic growth as formulated by Adam Smith: market expansion and the division of labour.

The development of science proved to be of fundamental importance. It showed a new, rational approach to scientific thinking and the creation of a scientific community. Its representatives became famous, not only among contemporaries but also for later generations until modern times.

Although the system of Greek city states fell into decline, many later political units in this region adopted the structures of the "polis", as for instance Rome. But this town developed despite frequent social clashes during its early period no form of democracy for the central

state. An oligarchy was followed by authoritarian rule. Nevertheless, many egalitarian elements are undeniably discernible: forms of wording such as "Senatus Populusque Romanus" or the description of the Emperor as "primus inter pares" indicate such an awareness. What can definitely be said is that the relationship between central administration and citizen (the "cives Romanus" with separate legal personality) was different from that in non-European cultures: "I stood before all others in authority, but of actual power I possessed no more than my colleagues in each separate magistracy" (Augustus, Res Gestae 34 quoted in Dahlheim, 1999, p. 74). This may have been a piece of fancifulness, but it documented how he saw himself. Subsequent centuries were to witness tendencies towards absolutism. But for a long time government showed a concern, after a region had been conquered by military means, to consider the interests of the inhabitants and to leave civic matters to self-administration – albeit by the upper strata (Dahlheim, 1999, p. 65).

Rome grew to an empire which collected taxes but created a functioning civil service, a regular army, local administration with police and fire brigade, etc. "Pax Romana" was the expression for a situation which guaranteed the state's citizens a high degree of personal and legal security. The development of the law proved absolutely fundamental to the Europe of the future. For Rome created not only likewise well-defined property rights but an extensive body of private law, whose essential features have remained valid up to the present day. It must of course be remembered that despite these future-oriented elements, Roman society did economically not yet differ fundamentally from other contemporary advanced cultures.

This political and economic system broke down in the turbulences of the migration of peoples. Its productive capacity was overstrained by the relentlessly rising costs of defence, which were reflected in similarly increasing taxation. It also became less and less able to guarantee citizens' property rights.

And so the urban culture of antiquity declined in Western Europe. The towns of the Roman Empire had been production centres only to a limited extent: they functioned as consumer cities. An upper stratum which derived its income from the surrounding estates spent the latter in the centres of administration and cultural life – albeit not just on personal consumption but also on investment in the urban infrastructure. With the rising costs of defending the Empire, this lifestyle could no longer be maintained. The patricians withdrew to their estates, and urban demand dwindled.

The Germanic invasion of the Western Roman Empire not only led to disruptions of the cities but also left the rural areas stricken with the result of these changes. So it became increasingly difficult to maintain the provision of the centres. But even when things had stabilized to some extent under the new rulers the demise of urban culture was not halted, since the Germanic upper stratum despised this lifestyle and settled in the rural regions. Nor were these consequences offset by the fact that the bishops had established their seats in the cities. In the 7th century European urban culture was dealt a further heavy blow by the advance of Islam, since the Saracens subsequently blocked off the entire Tyrrhenian Sea and so brought trade on its coasts nearly to a standstill (Pirenne, 1971, p. 6).

The population was therefore forced to resort to agriculture for its subsistence. Not only did urban culture largely disappear, but also trade and the money system remained in a depressed state. In some cases the economy was reduced to the level of primitive barter. Only gradually did new institutions develop which once again brought about some degree of personal and legal security.

3.2 The Christian Work Culture

Even during the late period of the Roman Empire and in the early Middle Ages however, an institution was already beginning to take shape which was to have central importance for the subsequent development of Europe: society's evaluation of work. This process was very intimately linked to the Christian religion.

In classical Greece – in contrast to its early period – any kind of productive labour was despised. Its society differed in this respect not from all other advanced cultures of the time. Only the reasons for this attitude were others: the activities deemed appropriate for the free citizen were confined to politics, science and war. All work necessitated by the compulsion to earn a livelihood must inevitably, it was felt, stunt men's abilities to achieve higher things. The dignity and outlook of the free man went hand in hand with economic independence. Following the same line, Roman antiquity defined as acceptable only the "artes liberales" such as architecture, medicine and science.

Early Christendom initially ascribed an ambivalent character to work: on the one hand it was part of the task of Creation – "and God said ... (replenish the earth) and subdue it" while on the other hand God's punishment of Adam for his disobedience was that he would have to eat bread "by the sweat of his brow". But gradually the Christian postulate of equality placed all forms of work on an equal footing. The following centuries saw a development of the Christian view of work, with lasting consequences. Augustinus (St. Augustine of Hippo) stressed the nature of work as an element in the divine process of the Creation. For the first time in the world history, labour was given a positive meaning (Frambach, 1999, p. 51). Furthermore, in complete contrast to antiquity, idleness was regarded as something detrimental.

And Catholic theology, in fact, started from the assumption of the main factors prompting the emergence of the capitalist type of man. This is particularly true of the natural-law ethic of St. Thomas Aquinas. The fundamental idea behind this ethic lay in the rationalization of life: "Sin in human activities is that which goes against the rules of reason" (St. Thomas, cited in Sombart, 1923, p. 307). This rational approach also had reference to the economic sphere. To the schoolmen who embraced the doctrine of scholasticism, the true economic virtue is "liberalitas", i.e. rational management: it could also be called economic efficiency. This lies between wastefulness and miserliness (Sombart, 1923, p. 309). What is reprehensible in any circumstances, however, is idleness. Any individual guilty of the latter is sinful in that he wastes the very valuable commodity that time represents. Here, therefore work is not merely rehabilitated but elevated to the status of a Christian duty.

It is, of course, no surprise that the Thomist ethic also imposes uprightness and honesty as requirements. However, this is not merely in general terms but in specific relation to business dealings; anyone who engages in trade "with misleading statements, falsehoods and ambiguities" is committing a mortal sin. In addition, Sombart also believes that it can be deduced from the writings of the scholastics that the authors actually favour the entrepreneurial and independent type of man in economic life (Sombart, 1923. p. 311).

Lastly, the Thomist ethic distances itself from the early Christian ideal of poverty. Whereas St. Thomas accepted the income situation as given at any time, his successors also recognized the dynamic aspect of the matter and hence regarded the accumulation of wealth as perfectly legitimate. The importance attached to economic activity by the Scholastic can be judged from an examination of the prohibition of interest: the latter applied only to pure usury, whereas if the creditor shares in the entrepreneurial risk in any form the prohibition naturally did not apply (Sombart, 1923, p. 316)!

Thus, all in all, the Thomist natural-law ethic created a set of institutions highly suited to form the type of man who could drive forward industrial development in Europe. Nor, therefore, it is any surprise that Sombart does not accept Max Weber's observations on Puritanism and the capitalist ethic, since capitalist behaviour had been shaped much earlier.

Certainly the Reformation radicalized this positive evaluation of work by investing it with the nature of a divine calling, expressed – in the case of German – by the use of the word Beruf. Man has a duty towards God to work. Calvinism goes still farther. Whereas Luther interprets the vocation to work as at a given place, which nobody should attempt to change, Calvinism makes the perception of work dynamic. Its standpoint is predestination, or election. Although man cannot influence his fate, it can be recognized by hard work and its visible results (Frambach, 1999, p. 60).

But the contribution made by Christianity to the capitalist development of Europe was by no means restricted to the social valuation of work. It differed from the religions of other advanced cultures not only in its content but also because it made no all-embracing demand. Christ himself made a clear distinction between the respective domains of the Emperor and of God. This dualism ran through the entire history of the Middle Ages and thereby created considerable scope for personal and intellectual development. Moreover, the Judaeo-Christian tradition was directed towards controlling nature: "... replenish the earth, and subdue it!" There was no place left here for paganism, which saw a deity in every tree (Landes, 1999, p. 38).

Lastly, in the Middle Ages the Western Papal Church created a common institutional basis. This included not only the Church in the strict sense but also the monastic communities and the universities (Mitterauer, 1999, p. 52). In this context there emerged not only common rules but, above all, a common and permanent intellectual discourse which encompassed all countries of the Latin-speaking world and which was a constitutive element of scientific development and hence also of subsequent technical progress.

It is true that the influence of the Church (particularly the Catholic Church) on industrial development was not a wholly positive one. The dogmatic obstacles it presented to scientific research are notorious, and the Enlightenment saw itself as the means of triumphing over such prejudices. The outbreak of religious fanaticism in Spain and Portugal, with the Inquisition and the expulsion of Jews and Muslims, appears to have been a major cause of the total stagnation of these originally leading trading nations of Europe (Landes, 1999, p. 134). All in all, however, Christianity must be recognized as having played a central role in the formation of an institutional structure, and hence the type of man, whereby the industrialization of Europe became possible.

3.3 Middle Ages – the City and its Burghers

The political system that was characteristic of the Middle Ages in Europe was feudalism. In principle, it arose from a deficiency. The early medieval kingdoms were not in a position to build up a central administration, a taxation system and a corresponding army such as had been, or were still the features, of the Roman State or other advanced cultures such as China. Instead, the territorial rulers deputed military functions (feudal military service) together with administration and jurisdiction to retainers who were each granted, in return, the right of usufruct over a tract of land. These manorial landlords, in turn, allotted parts of their grant of land to serfs, who cultivated it as payment.

This already marked the advent of a key element of the European institutional system, namely, the juridification of social relationships. They were based, in essence, on contractual rights and obligations: in return for certain forms of labour performance and dues rendered by the peasants, their landlords provided personal protection, administration and lower jurisdiction (Rosenberg and Birdzell, 1986, p. 62), Although over the course of the Middle Ages they increasingly conflicted with the proportionality of the performances concerned, in that they imposed an ever-heavier burden on the peasants, the nature of these social relationships remained, in principle, unchanged.

But it also resulted in what was a characteristic feature of European feudalism, namely, the splitting of power between territorial rulers and landlords as well as a regional fragmentation. It was always possible for the individual to avoid particular centres.

What was decisive for the subsequent institutional structure however, was the emergence of the European city. It developed from former Roman towns, markets and market regions. Market privilege, usually royal, guaranteed the latter immunity from the surrounding countryside and granted them the right to establish their own courts and to create law. This was, in any case, necessary for what may be termed a technical reason, since the Germanic law which applied in rural areas proved unusable for commercial activities. Furthermore, very early on the actual market participants gained influence over the administration of the market, since its founders had considerable interest in attracting traders and craftsmen. All of these nascent features come to full fruition in the medieval European city (Bindseil and Pfeil, 1999). Its political system gradually developed into a form of "... governments of the

merchants, by the merchants for the merchants ..." (Lopez, 1976, p. 70). Although this was as a rule confined to the well-to-do strata, within these strata it was conducted on essentially democratic lines.

A major contribution by the city to the institutional structure which made industrialization possible consisted in growing legal security. Disagreements in commercial life were brought before the courts for settlement. Burghers were free as a matter of principle. "Stadtluft macht frei, Landluft unfrei", i.e. serfs who came to live in a town or city for a year and a day automatically became freemen and were able to feel safe from arbitrary intervention by a feudal landlord or territorial ruler. A classic description of this political entity has already been given by Max Weber: "As a mass phenomenon, an urban community in the full sense of the word was known ... only to the Occident ... For it implied a settlement of an at least relatively pronounced craft-production/trading nature which exhibited the following features: (1) establishment; (2) a market; (3) its own court and to at least some extent its own law; (4) the nature of an association and consequently (5) at least partial autonomy and self-leadership, and hence administration by authorities in whose appointment burghers, in their capacity as such, had some kind of voice" (Weber, 1972, p. 736 as cited by Dilcher, 1996, p. XXIII).

In this atmosphere it again became possible to develop, in contrast to the part-ownership of feudalism well-defined property rights which apart from allowing an expansion of trade also strengthened the incentives for economic activity. Moreover this institutional structure led to increased individualization of the city burghers since he was thereby singled out not only from society as a body but also from the kinship group or extended family (Dilcher, 1996, p. 295).

It must not, of course, be forgotten that trends towards individualization also developed outside the cities. The first point to be emphasized is that the European peasant of the Middle Ages was certainly not a slave: he still possessed legal capacity. Furthermore, however, in rural areas there was a limited form of self-administration and collaboration in the lower level of jurisdiction (Mitteis and Lieberich, 1981, p. 203).

Economic activity in medieval cities was carried on within widely varying institutional frameworks; production and regional trade were organized in guilds. Although these were also self-governing bodies, they controlled the conditions for production and trade very strictly. Production methods, product quality, prices and customer groups were all fixed, as were entry into the trade concerned and the number of skilled artisans and apprentices.

The manner in which inter-regional and international trade developed was in total contrast to this. Here, leaving aside the taxes and duties which were levied on trade channels, the co-ordination of supply and demand was affected through the market itself. It must not, of course, be forgotten that the intensification of these trade relationships brought with it new institutions – a commercial moral code – which reduced entrepreneurial risk and lowered transaction costs. Observance of these moral standards was originally achieved without state intervention (Rosenberg and Birdzell, 1986, p. 114). Given that in the case of industrialization of the guild system the best that can be achieved is to recreate its legal nature, it is inter-

regional and international trade which points the way to the future system of market co-ordination.

Lastly, a displacement process left its mark on the nature of cities in a very particular manner, i.e. as regards the scientific discourse that was so significant for industrialization. Prompted by the Decrees of the Third and Fourth Lateran Councils (1179–1215) the sources of knowledge shifted increasingly from the monasteries into the cities. This engendered a revival of the cathedral schools: the number of independent teaching magistri increased, and it was from this process that in the 13th century the universities were gradually established. As a result not only did the cities develop into centres of education and science but this was accompanied by the emergence of a new aristocracy alongside the urban upper class (Le Goff, 1978, p. 53).

3.4 Quantitative Revolution and Technical Progress

The second half of the Middle Ages witnessed a decisive transformation among the urban citizenry (and in the monasteries) in the way in which Europeans measured reality: a change of mentality. This change is described as the "quantitative revolution" (Crosby, 1998). Although it found expression in diverse ways, it was always characterized by a quantitative approach to Problems.

Examples included the "linearization of time", which was made possible by the invention of the mechanical clock; the plotting of reliable nautical charts and land maps; the adoption and successful further development of Arabic mathematics; the development of double-entry bookkeeping; the introduction of perspective in painting; and the invention of music notation, which divided melody into temporal quantities and fostered polyphony. All in all, it heralded the transition from the mystic view of the world of the early Middle Ages to the rationalism of the Enlightenment.

And this adjustment was also reflected in European production techniques. To begin with, i.e. in the early Middle Ages, the increase in productivity occurred in agriculture. This initially related to the use of the wheeled plough with iron ploughshares, which made it possible to plough deeply and drain the soil. The two-field system brought the possibility of intensive grazing with quasi-automatic fertilizing. The scythe increased labour productivity significantly, and the introduction of the three-field system increased crop yields by a third. The resultant possibility of cultivating oats allowed the use of the horse, which was considerably stronger and faster than the ox. Its successful use in fieldwork was also made possible by the fact that with the horse-collar a usable form of harness was developed.

As a result of all these processes there arose around 1100 especially in Northern Europe a zone of rural prosperity (White, 1978, p. 92). This meant that sufficient agricultural surpluses could be produced to allow further urban development.

The start of this millennium saw a decisive technical advance achieved through the rapid spread of water mills. Originally used mainly for grinding grain, they also became used to an

increasing extent in industrial production. In addition, their application was aided by the invention of the camshaft and the gear wheel, so that not only were stamping-mills introduced for processing hemp but also many drive mechanisms for iron and metal production. Water mills were followed by tidal mills and windmills.

Further technical advances were brought by the development of the crank and the flywheel. A high point in this process unquestionably came with the invention of the mechanical clock, which in practice formed the basis of precision instrument-making in Europe. This development was assisted by the advent in the 13th century of spectacles, which virtually doubled the output of skilled workers over the course of their working life.

Many such techniques were adopted by Europe from China. This seems to be particularly true of the spinning wheel and the loom. Paper likewise is a Chinese invention; however, in Europe it was manufactured mechanically and so made much cheaper, which led to the explosive spread of letterpress printing.

As far as the demand for production techniques was concerned, the accoutrements of battle were naturally also important. The adoption of the stirrup allowed the effective use of armoured horsemen. Suits of armour gradually developed into mechanical and aesthetic works of art. However, in the late Middle Ages this battle technique was replaced by firearms, whose manufacture once more demanded considerable abilities of a mechanical nature. The most important thing about this development was that a tendency towards continuous technical innovation gradually began to establish itself in manufacturing. A structure of informal institutions developed which produced behaviour engendering an unending interest in technical innovations in the production process. A kind of technical-innovation discourse slowly got under way. This "passion for mechanization" (White, 1978, p. 100) did not exist in any other cultural area. By around 1500 Europe was markedly superior to other cultures in technical development – and hence also in military terms.

Hostile encounters with other civilizations also came about as a result of technical innovations, namely, those in seafaring. Shipbuilding and tackling improved; cranes loaded and unloaded vessels; the compass was adopted from China and accurate nautical charts were plotted. The conquest of the world began.

3.5 Formation of States and Mercantilism

With the change in military techniques, the feudal system came to an end. The development of firearms, in particular, meant that armour-clad horsemen lost their combat effectiveness. Of their responsibilities towards the peasant farmers under their control, the landlords retained only administration and lower jurisdiction, protection and security increasingly became the province of centralized power: state monopoly of the use of force began to emerge. However, the nobility was able to continue commandeering the leading positions in the army and the administration. Serfdom persisted (albeit in diluted form) up till the 19th century as an effective instrument of income redistribution. Alongside it however, the urban citizenry had

established itself as a (predominantly economic) power factor which because of its specialized competence gradually gained influence over the central system of rule, particularly as regards its financial affairs.

However, the cities likewise lost the strong and independent position they had enjoyed under feudalism. This too was partly due to military reasons. The traditional fortification by encircling walls no longer provided protection against modern artillery, and cities no longer had any means of resisting the ever-larger armies of the territorial rulers. But in addition to this they had lost their social compactness. Growing differentiation between social groups within the city and its consequences (domination by an urban nobility) led to rising social tensions. In these clashes, often involving the use of force, the parties often called for assistance from the territorial source of rule and hence inevitably endowed it with increased political and legal influence.

From this point on, in order to fulfil their military ambitions territorial rulers were compelled to turn to different ways not only of raising armies but, above all, of financing them, since such troops were not under any axiomatic obligation to perform unpaid military service. However, the medieval states were by no means ready for this. The territorial rulers derived their income essentially from their crown estates and lands and certain duties and levies, and this was often less than the income of many landlords. Taxes for extraordinary purposes such as wars had to be approved by the very social strata from whom they were collected.

Given the latter's reluctance to authorize such taxes, territorial rulers looked for new – regular – forms of revenue within their sphere of competence. To do this they followed widely differing routes, which were to have consequences for the subsequent process of industrialization insofar as they influenced the functioning of the market. In Spain and France in particular, the sale of privileges yielded an important source of revenue. It mainly involved guilds and similar organizations which in this way were able to secure monopoly positions for themselves (North, 1988, p. 154). Since these new revenues had to be fixed, collected, supervised and managed, they necessitated an extension of the administration system.

Thus, the loss of the nobility's military importance and the new financial requirements led to an increased tendency towards the formation of the central state. This process was, of course, frequently attended by bloody civil wars and produced differing results in the social distribution of power: in England, for instance, power war vested to a considerable extent in Parliament. The common factor, however, was the repression of regional autonomy.

In this connection it should be mentioned that neither the powerful imperial cities (Reichsstädte) nor the big city societies like the "Hanse" developed the ambition to create territorial states themselves. They were quite content with the membership in the imperial representative bodies. Exceptions arose only in the case of excessive foreign pressure as in Holland or in Switzerland. The city states of Northern Italy were destroyed by such powers.

But the phase of the transition to mercantilism included not only the expansion of central administration but also the unification of the legal system. Territorial rulers increasingly

changed over to regulating whole areas of life in society by means of laws. Although this initially related predominantly to criminal law, civil and commercial law rules became more and more common. Thus comprehensive formal institutions were already being created.

However, the replacement of knights-at-arms by foot soldiers exhibited a dynamic of its own which accentuated the above development still farther. The so-called "military revolution" (Parker, 1996) which took place from the 16th century onwards centred around three focal elements: the increased fire power of rifles and artillery, the erection of gun emplacements which were difficult to capture (the trace italienne) and warships armed on both sides. This development of battle techniques increased the financial burdens entailed. Consequently, most European governments often operated right up to or beyond the limit of their financial capability (see, for instance, Goodman, 1999).

The economic consequences of these military innovations remain, as yet, an open question. For the high tax burden involved arose from an enormous public demand for commodities which were extremely advanced in technical terms. This applies not only to the manufacture of a modern battleship but also to firearms; here, there was very soon a move on to standardization and mass production. There is, of course no doubt that devastating long drawn-out wars such as the Thirty Years' War set back the regions affected by decades, whether that is also true of the numerous cabinet wars remains unclear.

The essential contribution to economic development in this epoch was that made by the new position taken up by the state with respect to the national economy. As already mentioned, a relatively high degree of legal security had in fact always existed in Europe. In the past, arbitrary confiscation of inhabitants' property had very rarely occurred. Instead, in order to generate revenues the state had concentrated its efforts on extracting funds. Under the influence of mercantilist writings, there now came a complete change of thinking. Governments took explicit cognizance of the relationship between the level of economic activity and tax revenues. In political terms, the consequences of this realization consisted in fostering the economic expansion of the state in question: for the first time there emerged something like a coherent economic policy – "all-round commerce" (Universalkommerz).

The fundamental aim of this policy was to maximize the national product that was to be achieved by increasing production and deliveries. Economic growth was also to be fostered by protecting the national market against foreign competition. Surpluses on the balance of payments were to be achieved in order to build up a reserve of precious metals. To this end, countries created commercial authorities which were responsible for implementing economic policy. National territory was fused into a single economic area with tariff protection against the outside world. The infrastructure was built up, schools were established and compulsory school attendance introduced, and the beginnings of a social policy were put in place.

Trade with distant countries, which had in any case enjoyed princely favour since the Middle Ages, was now directly promoted, partly through foreign-policy or military activities and partly through the formation of trading companies (Pohl, 1999, p. 154). The deciding factor,

however, was the breakthrough in goods production: the guild system was largely broken up by the central authorities, and forms of production outside its area of operation were established. The manufacturing system was born, i.e. goods production which, although still predominantly based on the labour of skilled craft workers, grouped together a large number of such workers under one roof and thus allowed the control and targeted organization of production. Of even greater importance was the outworking system, in which predominantly middlemen supplied raw materials to individual rural processors and, after the goods had been manufactured, took charge of the marketing process. All these entrepreneurs no longer satisfied purely local demand but also supplied external markets. This meant that entrepreneurial experience was accumulated not only in foreign trade but also in terms of production. Lastly, the state did not stop at merely promoting production in various ways but also changed over to setting up enterprises itself, in some cases with considerable success.

The intellectual background against which this economic policy developed was the Enlightenment in which the attitudes of the Middle Ages as portrayed above had taken firmer shape and which dominated 18th century thinking to such an unchallenged degree that not only the general citizenry but also members of the nobility and the clergy right up to territorial rulers such as Frederic II of Prussia or the Habsburg Emperor Joseph II subscribed to it. It saw itself as the ideology of "reason", i.e. rational thought, in contrast to one governed by religious thinking. The concepts which flowed from it were high esteem of the individual, equality before the law for all, and the perception of the state as a social contract. Obviously, this climate of rationalism was highly conducive to scientific thought.

3.6 Breakthrough to Modern Economic Growth

Towards the end of the 18th century the Industrial Revolution got under way in Britain and in the following decades was quickly followed by similar transformations in the U.S.A. and Continental Europe. Although it seems that even then per-capita income in Europe exceeded that in other civilizations (Maddison, 1970, p. 36), the differences did not become immediately obvious – the second Ottoman siege of Vienna, at any rate, occurred as late as 1683 – but subsequently manifested themselves increasingly strongly.

This marked the onset of the process which Kuznets called "modern economic growth", i.e. steady economic growth on a scale which could no longer be disrupted by short-term setbacks (Kuznets, 1966). Although between 1500 and 1800 there had already been an increase in per-capita income in Europe, it was unevenly distributed regionally and over time and on a modest scale of around 25% overall (van Zanden and Horlings, 1999, p. 39). Now, quite different proportions were achieved.

The entire economic and social structure underwent a profound transformation. Agriculture, which previously had dominated the whole productive apparatus, increasingly declined in importance in the decades which followed. Its place was taken by industry. The latter's main feature was the factory, an organization which not only brought together a large number of workers in a single place but in which production was based on the use of machines whose

operation applied new means of inanimate power. Whereas formerly the bulk of the population had been country dwellers, the city now became the focus. Illiteracy was increasingly reduced as a result of education of various levels. Egalitarian elements infiltrated the hierarchical structures of society: "The Industrial Revolution also transformed the balance of political power – within nations, between nations, and between cultures; revolutionized the social order; and as much changed ways of thinking as ways of doing" (Landes, 1999, p. 187).

To begin with, the production process was driven forward by a few leading sectors. The major technical breakthroughs took place first in the textiles and iron and steel industries. These were followed by mechanical engineering, and it was not until the second half of the 19th century that chemicals and electrical engineering were added. Transport was revolutionized: for the first time in history the mass transportation of people and goods overland became possible, as a result of the railways. Steam navigation did not take over until later, but the competition it represented prompted important technical improvements to sailing ships, so that high productivity increases were also achieved at sea.

The essential driving force of this development was the coal-fired steam engine in its form as developed by James Watt. In this there had been created the prime mover which not only produced an incomparably higher power than all previous sources but, above all, was independent of location. It now became possible to set up, anywhere, factories in which large numbers of workers operated machines.

The central element of this radical change lay in technical progress, in the sense of the improvement of production techniques and organization of the production process, which now, however, in contrast to the past continued on a permanent basis. A prerequisite for this was, of course, a corresponding level of scientific knowledge. What appears to be still more important, however, is an atmosphere in which this technical knowledge is applied to improving production. And here we come to the crucial point. In Europe the sciences were in a continuous process of development which had already reached a high level by the end of the 18th century. However, this academic basis was accompanied by a generalized interest in things technical which had seized relatively large sections of the population. It found expression in numerous technical societies such as, in Britain, the Royal Society.

Within this context scientists engaged in debate with interested laymen, many of whom had experience of economic activities. And it was precisely such amateurs who successfully made the most important inventions and hence set the Industrial Revolution in motion. James Hargreaves, who invented the spinning-jenny in 1764, was an engineer; Richard Arkwright, who improved it, was a hairdresser and wigmaker; Samuel Crompton, who developed it further in the form of the spinning-mule, was a textile worker; Edmund Cartwright, the inventor of the power-loom, was a parish priest and writer; and so on. It was not until the second half of the 19th century that any systematic collaboration between academic research and economic development became established.

And it is here that at least a possible answer is to be found to the old and much-disputed question: Why was Britain first? For whereas in terms of actual inventions the latter was

surpassed at that time by France, but nowhere else was interest in technical and economic matters i.e. in a relevant debate, as widespread as it was in Britain (Mathias, 1969). This climate fostered the rising generation of early inventors: "From his days as a young apprentice in London James Watt participated in what we came to see as the distinctively British culture of applied science" (Jacob, 1998, p. 69).

Important institutional changes once again, of course, also played a part. Although this interest in things technical seems to have existed in its own right, its application to production was certainly stimulated by the introduction of patents legislation granting an inventor the sole right, for a specified period, to profit from any proceeds derived from the invention concerned. Here again Britain was in the lead, with its enactment of the Statute of Monopolies in 1624 (North, 1988, p. 169).

Nor must we overlook the long-established commercial experience of this maritime trading nation or, lastly, the fact that it was in Britain that civil freedoms were first established and that, as a result, the characteristic type of man first emerged.

3.7 The Product of Centuries

If we try to summarize all this and draw conclusions from it, it may be said that the Industrial Revolution is the result of a process of development dating back over centuries into antiquity. In the course of this process there was created a particular institutional structure – a particular culture – which shaped forms of behaviour that brought about a fundamental transformation of society and the economy unique throughout the world. More specifically, the following necessary – and manifestly adequate – conditions developed (Butschek, 2002, p. 164):

1. The high social value of labour, which was not the case in any other culture. Upper classes there had to fight, to pray and to hunt. This new assessment of labour was the outcome of Christian religion – "pray and work"! Christianity elevated work to the status of moral duty. But it was not only the high esteem of it, because medieval scholastics developed a dynamic attitude towards work. It should have been done not only honestly but rationally and successfully. This approach was notoriously intensified by Protestantism. And this element of the European governance structure leads to the next one.

2. The individualistic European type of man, prepared to assume responsibility and self-assured, which was already present in the Greek "polis". The latter integrated citizens into the political decision-making process and opened up to them considerable freedom of action. Political participation offered them opportunities for exerting a formative influence, but also demanded a readiness to assume responsibility. This sense of personal responsibility required a firmly realistic analysis of the surrounding world, which may have accounted for the rational approach of European thinking. The Roman Empire, although not offering the same degree of freedom, preserved many democratic and egalitarian elements. The medieval cities carried on the tradition of antiquity in their system of extensive self-administration by burghers. Its restriction by the territorial state barely affected the economic sphere, moreover there

developed along with this political institution the ideology of the Enlightenment, which made the above mentioned characteristics of citizens explicit and backed them by force of argument. It was from this type of man that there was drawn the capitalist entrepreneur (as also the inventor, the resourceful government official and the politician) who made full use of his opportunities for taking action.

3. Another feature which must be regarded as characteristic of this type of man is the technical and scientific nature of his thinking. The "quantitative revolution" of the later Middle Ages marked the point when mystic and religious thinking was abandoned and rationalism became the foundation of European intellectuality. It was on this basis that the scientific elite now took a good look at the world around them. And this scientific awakening eventually led to rapid and widespread advances in technology. As already described, however, it was not the academic sciences that proved to be the determining factor for the Industrial Revolution, but the emergence of a science-laden atmosphere which encompassed broad sections of the population and, above all, the continuous innovation that had become a "routine" (Landes, 1983).

4. A key determinant of capitalist development in Europe lies in the rule of law. It signifies that every individual is as a matter of principle subject to the law, that disputes are dealt with before courts and hence that personal power plays no part in the enforcement of the law. As a result, the individual is protected against arbitrary encroachments on his rights by third parties. The beginnings of this are also to be found in the "polis" but were developed more positively by Roman law. Although the latter was not passed on directly into the rule-making systems of the mediaeval cities (its adoption came at a later stage), they likewise all developed, despite differing legislation, in the direction of a state governed by the rule of law. And even the new territorial states remained characterized – despite absolutism – by broad codifications of the existing law. That does not mean to say that all areas of the legal system always favoured economic activities, but the main point here lies in legal security, proper access to courts and authorities and the absence of corruption in the dispensing of justice and administration. Not only did this ensure that entrepreneurs could plan business operations on a long-term basis, but in this way transaction costs decreased decisively, which in turn led to the expansion of markets and more intensive division of labour and hence to the reduction of production costs.

5. In the pre-industrial era all the factors named here are typically connected with trade with distant countries. For many hundreds of years the latter was not necessarily something specifically European. However, in the Middle Ages Continental foreign trade begins to take on characteristic features. A series of institutional and technical innovations emerged. Banking developed in Northern Italy as well as cashless payment. From early modernity onwards, maritime trade acquired particular importance, attaining a previously unknown geographical extent and a quantitatively immense volume. Not only did it drive forward technical development in shipbuilding and navigation, but it had a decisive effect in that entrepreneurial operation on a large scale became, as a result, possible and customary:

"With the rise of commerce came a rise in shipping and, perhaps more important, a rise in the institutions of credit and commerce; and above all a rise of men devoted to commerce: men concerned with fine calculations of profit and loss, men of wide horizons, whose attitudes communicated themselves in various ways throughout their societies" (Rostow, 1960, p. 31).

3.8 Europe's Uniqueness

Identifying these key factors which shaped the complex process of industrialization also provides the answer to the question: Why Europe, and why only Europe? For we find that these crucial determinants of industrialization failed to develop in the comparable advanced cultures i.e. the Arab-Turkish, the Indian and the Chinese. The distinguishing attributes of the capitalist type of man were far less pronounced there. The explanation for this lies, once again, in institutional development. In the non-European civilizations, with their large, unbroken land masses, central or territorial (usually despotic) power was able to maintain its grip time after time. This also applies to the (far less numerous) cities, which were always dominated from outside by aristocratic landowners with their non-commerce-oriented set of values. Any kind of autonomous development comparable to that in Europe remained unknown in these regions. Nowhere, therefore, did a relatively free citizenry emerge. Townhouses were unknown there.

From the birth of Islam for instance the concept of religious community had ousted all idea of the state as treaty of free citizens, who are subject only to the law. The word of God axiomatically ruled supreme over both everyday and public life (Dahlheim, 1999, p. 181). This view of things preordained also a policy under which scientific research (which in the early Middle Ages had reached for instance a high point in the Spanish universities) was subjected to restrictions and, to this end, letterpress printing was prohibited since it was only likely to assist the spread of undesirable ideas (Jones, 1990, p. 184).

And this meant also a block on all scientific and technical development. In all of these civilizations, of course, and particularly in China, there were outstanding scientific achievements. But they never led to the onset of any process of industrial growth because scientific work was confined to a narrow circle. There was never any of the generalized and ongoing discourse which drives scientific knowledge forward.

Japanese society, similarly, kept itself sealed off from the outside world during the 17th and 18th century. But it exhibited a number of developments similar to that in Europe. It was for instance possible in Japan to flee into the city. And there also emerged an independent, commerce-based bourgeoisie who developed a specific work ethic. Seemingly there also gradually developed a position of central power for state and economy similar to that in European mercantilism. Investment in the infrastructure began. In addition, a proto-industrialization unfolded on the basis of cotton processing. Large urban consumer centres such as Edo (the present-day Tokyo) and Osaka were established. The Meiji Restoration 1867 was therefore able to build on a useful basis. There is no doubt that its sweeping success was

founded firstly on the Japanese work ethic, which exhibited features similar to that in Europe, but also on the eager adoption of European experience.

A second key element of the difference between Europe and the Asiatic cultures is the presence of the state governed by the rule of law. Although in different epochs and to a differing degree time and again there were instances of arbitrary confiscation of assets. In such circumstances it was neither possible to embark upon long-term, extensive investments nor deemed advisable to accumulate major assets. In India things reached the point where inhabitants built humble-looking houses in order not to attract attention (Landes, 1999, p. 157).

A further element which held back development was probably that in these civilizations subjects were taxed excessively (Maddison, 1970, p. 38). This meant that no resources could be accumulated for investment. Luxury consumption in the ruling strata of these civilizations, particularly in India, is said to have been far in excess of that found in Europe (Jones, 1990, p. 196).

Differences in foreign trade are the least noticeable. All of these civilizations engaged in such trade up till the late Middle Ages. In some cases it was then halted administratively, as in the case of China, where in 1480 the Emperor prohibited all maritime trade. (The very fact that such a ban could be imposed is also attributable to the absence of a strong, actively trading bourgeoisie.) In other cases it was the Europeans who suppressed Asiatic competition, once their ships were more technically advanced they had larger capital resources at their disposal and, lastly, they possessed superior military strength (Landes, 1998, p. 20).

And this historical legacy has continued frequently up to the present. Outside Europe even today there is in many cases no bourgeoisie which is individualistic, willing to take responsibility, self-assured and entrepreneurially minded, and an inadequate and corrupt legal system is virtually a characteristic of these regions. In many instances the development of human capital is still only just beginning and these societies are unsettled by social tensions, as for instance in the Arab countries.

In contrast to this development during the past few decades most East Asian countries have succeeded in setting a process in motion following the European pattern. Few of them proved to be exemplary democracies, but their political system ensured scope for economic activity, together with the essentials of legal security, i.e. properly functioning courts and administrative authorities. The more or less authoritarian governments directed their policies at the economic interests of their respective countries and not, in general, at serving a special clientele, nor was their aim massive personal enrichment.

This was matched, on the part of the population, by a notoriously high work motivation and a similar eagerness to learn which was given full rain by a comprehensive education System. This informal institutional structure can also be traced back to historical traditions. However, it was at the same time sufficiently flexible to accommodate adjustments to the new circumstances of an industrial society without any social disruption. This provided a viable

basis for the emergence of a highly effective economic policy. These countries established an appropriate infrastructure and also retained their identity: agriculture was not discriminated against but promoted, by measures including land reform. Industrial policy was geared to properly functioning competition primarily at domestic level. The outcome of this particular set of circumstances is there for all to see: since 1960 the Asian tiger economies have grown three times faster than those in South America and five times faster than those in sub-Saharan Africa (Schröder, 1999, p. 87).

If the process of industrialization has been presented here in great detail it is because it describes the most important contribution of Europe to the economic development of the whole mankind. Industrialization not only changed fundamentally the economic performance, but it paved the way to a likewise change of the whole society. Europe designed the road from an agrarian economic structure stricken with poverty to an industrial state with a, by all historical standards, extremely high income for everybody.

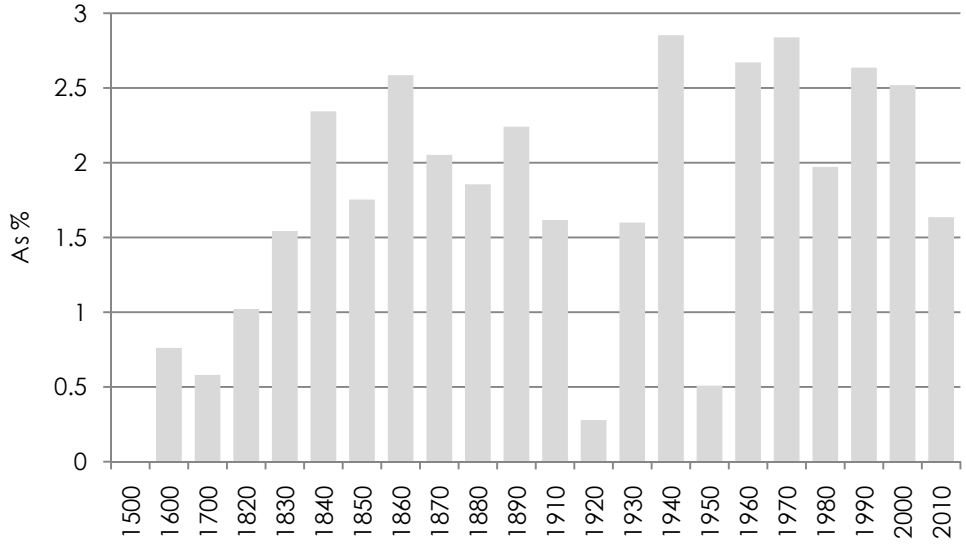
Therefore all countries of the world are now engaged in the process of catching up to European standards; certainly with different outcomes. Some of them already overtook this level, others are well underway. Many of course are still lagging behind. But all of them follow the path, which has been opened by Europe: "The country that is more developed industrially only shows, to the less developed, the image of its own future" (Marx, 1962, p. xix).

4. Heading for the Silver Age

4.1 Modern Economic Growth

If it has been said, that the Industrial Revolution had started in England towards the end of the 18th century, this does not mean, that this process had been quickly accomplished and had found immediately its expression in the growth of the GDP. It needed a considerable time to be completed and any consequences for the national account – not to speak of the difficulty to construct historical series – must have been still limited, because the new industrial sector represented still a comparatively small part of the economy. This was even true for England, the pioneer of industrialization, but much more for the other European countries, which commanded a far smaller manufacturing sector. They remained still for many decades agrarian economies. So one can hardly speak about a "take off" for the total economy, but of a comparatively smooth advance, which eventually accelerated in the course of the 19th century.

Figure 1: Economic Development in the United Kingdom
Average growth rate between the years on the time line



Source: Maddison (2003); own update based on OECD.

Many decisive technological improvements were to come during this period. Especially the construction of railways proved to be of fundamental importance for the economic development. The first major line opened 1830 between Liverpool and Manchester (Crouzet, 2001, p. 124). This start followed a veritable explosion of railroad construction not only in England but later on all over Europe. This meant that the first time in history masses of raw materials, merchandise and people could be transported over long distances. Railway construction as well as operation caused considerable forward and backward linkages. There arose high demand for coal, steel and engineering industries. The dramatic fall of transportation costs changed the market structures. Towards the middle of the 19th century the basic lines were installed in the Western European countries.

Also the seaborne trade benefitted from the fall of freight rates. This was also the consequence of the technical progress, because ships were built from iron instead of wood and propelled by steam instead of sails. To be sure this development took time, because first the steamships needed too much room for coal. But their invention enticed considerable technical improvements for sailing ships. The "Tea clippers", which served the China route, became famous.

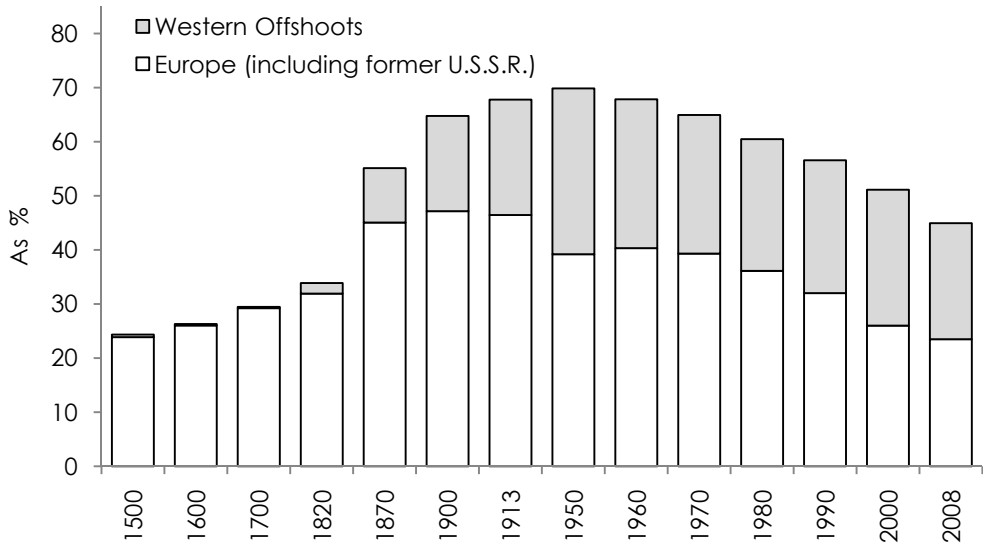
Industrialization in England was fostered by a well-working capital market and many comparatively small private banks, which provided the entrepreneurs with short-term credits. This was not the case on the Continent. Therefore here arose a new type of banking. 1852 in Paris the Crédit Mobilier was founded by the Péreire Brothers, which was characterized by a mixture of receiving deposits and providing long-term investments. This type of bank became predominant in Continental Europe and gained enormous importance for the industrialization

especially of Germany and Austria-Hungary, where the famous Creditanstalt was founded in 1855 (März, 1968, p. 29)

Industrialization went on geographically asymmetric. As had been pointed out England pioneered this process about 1800. Continental Europe followed suit from the twenties of the 20th century. Especially Belgium, Switzerland, France and Germany started comparatively early with the production of textiles and iron. Generally it may be said, that industrialization followed an East-West gradient, according to the level of the quoted preconditions. Up to the middle of the 19th century Western and Central Europe could be regarded already as capitalist economies, whereas Eastern Europe followed in the second half of the century – some regions even later.

Neither developed industrial output evenly within the political entities. In contrast to agricultural production, which was performed throughout the country more or less evenly, industry was concentrated on specific locations, on growth poles. This was to be expected because of technical and economic conditions of industrial production. But in some states the differences of economic development were as high that the political borders did not correspond with the economic ones. This was especially true for Austria-Hungary. The Habsburg monarchy embraced industrialized parts as today's Austria, Bohemia and Moravia and extremely backward regions as Galicia and Littoral. The same was true for Italy. Whereas the northern part of the country showed an impressive industrial progress, the "Mezzogiorno" remained in a preindustrial status (Crouzet, 2001, p. 143).

Figure 2: Western Countries' Share in World GDP



Source: Maddison (2003); own update based on OECD.

Although one may say, that the capitalist development of Europe in the middle of the 19th century stayed still in an initial status, this region separated itself clearly from the rest of the

world. In spite of the above mentioned restrictions growth of GDP in Europe had accelerated, its share in world's production had increased significantly as well as income per capita. According to calculations of Maddison (2003) the latter of Western Europe in 1870 was nearly fourfold that of China, which had been the richest region of the world during the Middle Ages.

During the second half of the 19th century economic development in Europe gained momentum. Industry's share in overall production was steadily growing the part of agriculture was decreasing. New leading industries came up. Textiles and iron production were now substituted by machinery, chemistry and electrical industries. And this brought also a change in output ranking. Towards the end of the 19th century Germany overtook Great Britain in total GDP (although not in income per capita), because the former country had its strongpoint in these industries. One reason for this development lay in the upcoming close cooperation of universities and industry.

The revolution in production and transport was now reinforced by the revolution of information transfer as a consequence of the invention of the telegraph and later the telephone. Electric lighting widened the day and the electro motor provided engines also for small producers. Industrialization extended now also to Eastern Europe. Some countries as Hungary and Poland made successfully headway in this respect.

But another phenomenon became visible and important during this period. The increasing European emigration had given whole continents a new face, especially in North America, in Australia and New Zealand. And these migrants proved to be especially prone to capitalist activity. This was primarily true for the United States of America. Towards the end of the 19th century the U.S.A. had already become the leading industrial country.

Now the economic performance of the European descendents does not provide an alternative evaluation of the capitalist development. Only the question arose, why the U.S. economy performed better than the European. But anyway, it was important for Europe because it brought a widening of trade and possibilities for foreign investment as well as a fruitful technological competition. Generally all Western countries must be seen as a totality, if one wants to assess the importance of capitalism in respect to the rest of the world. After all, this period brought the climax of European Imperialism.

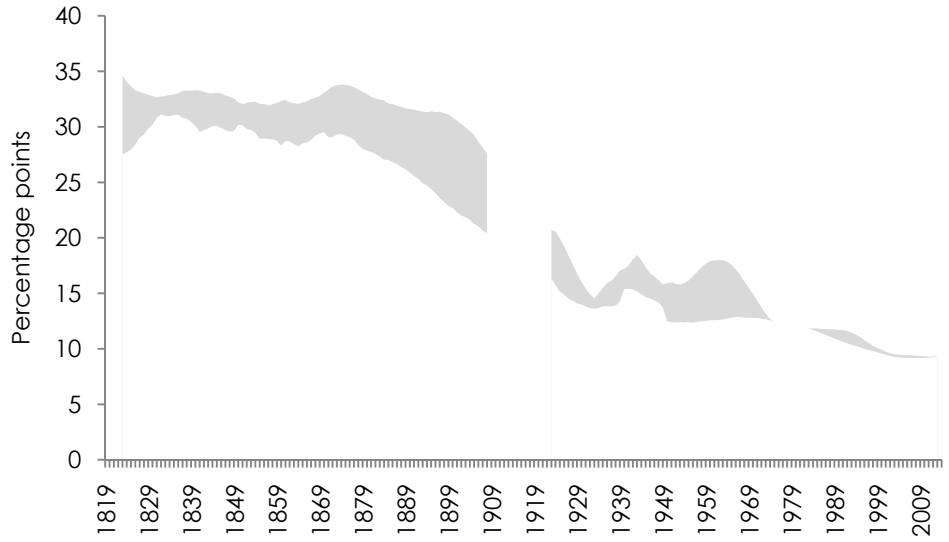
The rapid development of industrialization entailed fundamental structural changes not only of the economy but likewise in other parts of the society. The regional structure of the population changed, as has been already mentioned, from a more or less even distribution on countryside to a growing concentration in towns. In 1800 12% of the people were inhabitants of towns, in 1870 it was (except Russia) 39% – and this process continued (Crouzet, 2001, p. 159). In this context one should stress, that also a new social group emerged with very specific problems.

With the growing industrial production there increased the demand for labour. This was primarily satisfied by the increase of population as a consequence of the "demographic

transition" (Weigl, 2012, p. 93). In preindustrial times population development remained roughly in equilibrium with high fertility rates as well as high mortality rates. Towards 1800 the latter started to fall as a consequence of better feeding, hygienic improvements and the disappearance of epidemics. In contrast fertility rates remained constant. As a consequence Europe faced a strong population growth.

Figure 3: Population Growth in Austria

Difference between fertility rate and mortality rate, 10 years moving average



Source: Statistics Austria.

4.2 The Social Question

But this development did not suffice alone to satisfy the industrial demand. There a change of labour from other sectors of the economy also was necessary. And exactly this occurred. There arose a steady flow of workers from agriculture on the countryside into industrial urban regions. But this change caused one of the greatest challenges to the capitalist system.

In this process people were removed from their agricultural environment with very low income but a certain minimum economic and social security into the towns as single persons with no family background and insufficient accommodation. Work proved to be extremely burdensome. There was a daily working time up to 16 hours, wages were depressed and social security did not exist. There arose a big social group, which was characterized by poverty and insecurity. Workers were partly detested, partly feared by the other parts of the population. The consequences were frequent riots and permanent strikes.

Towards the last quarter of the 19th century it seemed, as if this obstacle for further smooth development of capitalism could be overcome. On the one hand this was the consequence of autonomous initiatives of the workers themselves – and their leading personalities. New organizations were established like trade unions and political parties, which gave workers a

high self esteem and made collective action as well as cooperation with employers or the public administration possible. On the other hand intellectuals realized the importance of this problem and strived to support workers movement, either by theoretical approaches like by Karl Marx or by discussing pragmatical solutions as provided for example by the German "Verein für Socialpolitik".

All these activities were rather successful. Social parties gained eventually considerable strength in the parliaments. Labour laws were introduced, which regulated the working conditions, but also social insurance especially in Germany and Austria. Collective treaties among trade unions and employer organizations became common and improved wages. Since the beginning of the 20th century many labour markets seemed to approach to full employment. So the first steps of the integration of workers into the society were set (Butschek, 2002, p. 152).

So in this period European capitalism showed a rather impressive picture. In the most countries the system worked smoothly. Economic growth was high by historical standards; the share in world GDP increased further and reached roughly 45%. All Western countries provided nearly 70% in 1913. In this year European income per capita was three times this of 1820.

Of course the question arose, why the U.S.A. had already overtaken economically Europe. First of all one should stress, that this country was a European descendent with all characteristics of this region. But there seemed to be some favourable differences in the quality of American people and society: "Compared with Europe they had left, land was plentiful and cheap, though it might have to be cleared with an expenditure of effort, there was no traditional class of landlords to push down or exploit the tillers of the soil economically, and government pressed lightly in terms of taxes or military service. Land being cheap and easily available, wages tended to be high and mobility unhindered" (Pollard, 1999, p. 91).

Perhaps one might add that emigrants are generally active people and the economic conditions in America fostered especially competitive attitudes.

The economic cooperation among countries was intensified. The German customs union (Zollverein) found its way to the German state with the "Mark" as currency. Apart of this France established the "Latin Monetary Union" in 1856 with Belgium, Switzerland and Italy. But above this towards 1900 all important states had accepted the gold standard, which fostered the integration of the capital markets. Britain's strong balance of payments, its open economy and the "cities'" efficiency made London the financial capital of Europe. All this provided a remarkable financial stability.

Also trade intensified throughout this period. The share of European Exports in GDP rose from 4% in 1830 to 14% in 1913 (Crouzet, 2001, p. 166). The bulk of foreign trade was performed within Europe. Of course some countries prescribed customs, but they were low, compared to later times, and remained unimportant considering the steadily falling transaction costs. As a result of the intensive economic cooperation first multinational firms came up.

But there did not only develop a close integration of the European economy by autonomous market forces, but also by deliberate administrative action. It was the time of common regulations and prescriptions. 1865 the International Office of Telegraphy became the forerunner of the International Telecommunication Union. The Universal Postal Union was established in 1846. Railway companies too founded international organizations. International property rights were secured and regional commissions regulated specific affairs, as the Danube River Commission (Foreman-Peck, 1999, p. 103).

So in 1913 Europe presented itself as a uniform region. It had developed a fundamentally new dynamic economic and political system, which pushed its GDP dramatically above the outside world. Income per capita was fivefold higher than in China, the once richest region of the world. The capitalist system worked now smoothly in close cooperation of all European countries. It dominated also the overseas markets either by trade or by force. All this induced some authors to maintain, that war amongst these countries seems not feasible. Doubtlessly one could speak of the period of "Silver Age" of the European economy.

5. The Time of Catastrophes

5.1 World War I

This favourable economic situation was shattered by the outbreak of World War I. The intensive integration of the European economies could not prevent the clash of national interests. Of course this paper cannot interfere into the present discussion about the prime mover of the war, which has come up towards the anniversary of 1914. But it would be utterly wrong to regard this phenomenon only as a result of politics. The war was hailed by nearly all intellectuals, which expected an outbreak out of the boring life only with economic ambitions. The "Stahlbad" should challenge people and foster the true value of men.

This assessment was similarly realistic as the expectations of politicians and entrepreneurs about the character of the war. They expected a short campaign of some weeks and were therefore eager to gain orders for their enterprises. They imagined wars as in the 19th century. Their effects on the economies remained limited. On the contrary; when Austria-Hungary was defeated by Prussia at Königgrätz in 1866, a strong boom set in immediately afterwards. Nobody could imagine wars of fully developed capitalist economies.

So there was a great surprise, when instead of knightly duels, ten thousands of people were killed by machineguns and artillery. When food, coal, raw materials as labour became scarce, as well as means of transport. The steering system of the belligerent's economies had to be changed of market clearing to quantitative rationing. The outcome was horrible.

11 million people had been killed. North-eastern France, Serbia and parts of Belgium were completely devastated, not to speak about the other theatres of war. Hundreds of ships were sunk. Equipment was depleted. Many overseas markets were permanently lost. But besides the material losses, the liberal and efficient pre-war economic order of Europe was

destroyed: "The peacemakers did not pay enough attention to Europe's economic problems, and indeed they exacerbated them unwillingly instead of devising a program of reconstruction, so that recovery was hampered and obstructed" (Crouzet, 2001, p. 173). The great economic entity Austria-Hungary had been dissolved into many small successor states, which immediately protected their agriculture and industry. In 1920 trade among them was reduced to less the half of its former level, which hindered the recovery in the Danubian region and added to its instability. But also generally foreign trade in Europe was significantly reduced.

A further problem arose out of the reparations from Germany to the victors. Its sum was regarded as rather high. Keynes pointed already 1919 in his book "The Economic Consequences of the Peace" to the detrimental character of the Versailles treaty: "The Treaty includes no provisions for the economic rehabilitation of Europe – nothing to make the defeated Central Empires into good neighbours, nothing to stabilize the New States of Europe …" (Keynes, 1920, p. 211). Probably the lacking knowledge of economy or insignificant information by consultants contributed to this outcome: "Reparation was their main excursion into the economic field, and they settled it as a problem of theology, of politics, of electoral chicane, from every point of view except that of economic future of the States whose destiny they were handling" (Keynes, 1920, p. 212).

The reparations had been later reduced by the "Dawes Plan" and the "Young Plan", but they had poisoned the atmosphere, so that the reconstruction of the European economic order proceeded rather slowly and incomplete.

As many of the belligerent countries had financed the war by unlimited credits of the central banks and after peace there it was hardly possible to establish the internal financial equilibrium, hyperinflation developed as for instance in Austria and in Germany. In the initial phase this may have stimulated investment and employment, but led finally to misallocation of resources, destruction of savings, weakening of many banks and added therefore to instability of the markets. On the other hand the return of the Pound to the gold standard, to its pre-war parity, caused stagnation and unemployment. So Europe had not only to face the enormous losses of WWI, but likewise a bulk of difficulties which resulted from the breakdown of the economic and political structure of the continent.

But in spite of all the quoted problems, towards the middle of the 1920s an upswing set in, which embraced nearly all European countries. The inflation had been stopped by establishing control mechanisms of the League of Nations in the Eastern European countries and by providing international credits. U.S. capital poured into Europe, and investment was fostered by considerable technical progress which was transferred from the U.S.A. to Europe. It concerned electricity, motor vehicles and already aircraft. Also new methods for organizing work, which became known under the name of Taylorism and Fordism, increased the productivity of European workers.

Table 1: Economic Development of European Countries and the U.S.A.
From 1913 through 1937

	Austria	Belgium	Denmark	Finland	France	Germany	Italy	Nether-lands	Norway	Sweden	Switzer-land	United Kingdom	U.S.A.	Czecho-slovakia	Hungary	Poland	Yugo-slavia
	GDP at constant prices, 1913 = 100																
1914	83,5	93,7	106,3	95,6	92,9	85,2	99,9	97,3	102,2	99,1	100,1	101,0	92,3	.	.	.	.
1915	77,4	92,5	98,9	90,8	91,0	80,9	111,8	100,6	106,6	99,1	101,1	109,1	94,9	.	.	.	.
1916	76,5	97,9	103,1	92,0	95,6	81,7	125,4	103,3	110,0	97,8	100,7	111,5	108,0	.	.	.	.
1917	74,8	84,1	97,0	77,3	81,0	81,8	131,3	96,7	100,0	85,8	89,7	112,5	105,3	.	.	.	.
1918	73,3	67,8	93,8	67,0	63,9	82,0	133,3	90,7	96,3	84,5	89,4	113,2	114,8	.	.	.	.
1919	61,8	79,9	105,9	80,9	75,3	66,0	111,0	112,4	112,6	89,4	95,3	100,9	115,8	.	.	.	.
1920	66,4	92,5	110,9	90,5	87,1	71,7	101,3	115,8	119,7	94,6	101,5	94,8	114,7	90,4	82,6	.	89,2
1921	73,5	94,1	107,7	93,5	83,5	79,9	99,8	122,9	109,8	91,1	99,0	87,1	112,1	97,7	.	.	91,4
1922	80,1	103,3	118,6	103,4	98,5	86,9	104,9	129,6	122,6	99,7	108,5	91,6	118,3	95,1	.	.	94,1
1923	79,3	107,0	131,1	111,0	103,6	72,2	111,3	132,8	125,3	105,0	114,8	94,5	133,9	103,0	.	.	99,1
1924	88,5	110,5	131,5	113,9	116,6	84,5	112,4	142,5	124,7	108,3	119,1	98,4	138,0	113,7	95,7	.	106,3
1925	94,5	112,2	128,5	120,4	117,1	94,0	119,8	148,5	132,4	112,3	127,8	103,2	141,2	127,1	115,0	.	111,6
1926	96,1	116,0	136,0	125,0	120,2	96,6	121,1	160,4	135,3	118,6	134,2	99,4	150,4	126,6	110,2	.	119,4
1927	99,0	120,3	138,7	134,8	117,7	106,3	118,4	167,1	140,5	122,3	141,4	107,4	151,9	136,1	115,0	.	117,5
1928	103,6	126,6	143,4	143,9	125,9	111,0	126,9	176,0	145,1	128,1	149,3	108,7	153,6	148,1	125,1	.	128,0
1929	105,1	125,5	153,0	145,6	134,4	110,5	131,1	177,4	158,6	135,9	154,5	111,9	163,0	152,2	129,2	127,0	134,8
1930	102,2	124,3	162,1	143,9	130,5	109,0	124,6	177,0	170,3	138,7	153,5	111,1	148,5	147,2	126,4	121,1	132,2
1931	94,0	122,1	163,9	140,4	122,7	100,7	123,9	166,2	157,1	133,7	147,1	105,4	137,1	142,2	120,3	112,3	128,3
1932	84,3	116,6	159,6	139,8	114,7	93,1	127,9	163,9	167,6	130,1	142,1	106,2	119,0	136,5	117,1	103,6	116,3
1933	81,5	119,1	164,7	149,1	122,9	98,9	127,1	163,6	171,6	132,6	149,2	109,3	116,5	130,7	127,7	100,7	119,9
1934	82,2	118,1	169,7	166,0	121,7	108,0	127,6	160,6	177,1	142,7	149,5	116,5	125,5	125,7	128,5	102,1	124,4
1935	83,8	125,4	173,5	173,1	118,6	116,1	139,9	166,6	184,7	151,8	148,9	121,0	135,1	124,5	135,0	103,6	122,5
1936	86,3	126,3	177,8	184,8	123,1	126,3	140,1	177,1	196,0	160,6	149,4	126,5	154,3	134,7	144,0	106,6	138,4
1937	90,9	128,0	182,1	195,3	130,2	133,9	149,7	187,2	203,0	168,2	156,5	130,9	160,9	149,8	140,8	127,0	140,6

Source: Maddison (2003).

So many European states could 10 years after the war increase their GDP by 50% or even more compared to 1913. Only the war losers Austria and Germany, which had to struggle with hyperinflation, could raise their production only moderately. They were not able to compensate the setback of the war. Moreover the economic as well as the political system of Europe remained rather fragile, because many repercussions of war and post-war times were not yet completely overcome.

5.2 The Great Crisis

So the next slump proved to cause fatal consequences. At the start of the new development there stood the agrarian crisis. The breakdown of agrarian production in Europe during and after WWI had pushed it upwards Overseas. With the recovery of the European agriculture the prices started to fall considerably. This caused deterioration of incomes and balance of payments especially for Eastern European countries. The development was aggravated by the shrinking flow of U.S. capital, which was reverted to the states by the stock market boom. Its breakdown on the "Black Friday" (which was a Thursday in reality) on October 24th, 1929 marked the beginning of the "Great Crisis". Crashes of banks followed with tightening liquidity,

many enterprises closed down which aggravated the credit crunch. The U.S.A. tried to shield their market against foreign competition by the Smoot-Hawley act which raised the customs considerably. This was the signal for the European countries to proceed likewise. So the international trade was severely hampered.

In spite of this deplorable situation in spring 1931 some faint signs were visible. But these were completely crashed by the Creditanstalt crisis. This Viennese bank was regarded as the greatest one in Eastern Europe with a very high esteem. When it nearly failed in May 1931 this caused fatal consequences not only for Austria but also for Germany. The Dresdner Bank and the Darmstädter and Nationalbank were forced to close and the German government ordered bank holidays. Britain left the gold standard in September and devalued the Pound. This shock prolonged the general crisis until 1933.

The outcome of this period was disastrous. There were reductions in GDP up to a quarter. Again the losers of WWI were hit especially hard. The German GDP shrank by 40%. Unemployment rose up to 25% of the labour force. Only the Scandinavian countries managed to overcome the crisis.

Hardly any political activities were undertaken to counteract this severe setback, neither nationally, nor internationally. An expansionary fiscal policy was not initiated, partly because such measures were unknown – Keynes' General Theory was published in 1935 – partly because the memory of hyperinflation checked the authorities to proceed like that.

But also the political consequences were fatal. In all countries east of the Rhine democracy disappeared. Only in the Czechoslovak Republic this political system survived. The other countries experienced the coming up violent and warlike Fascist movements, especially in Germany and in Italy.

The following upswing remained comparatively weak. Only towards the end of the 1930s with the rearmament of Britain and France – Germany had started earlier – growth gained momentum. And again the Scandinavian countries were rather successful in trying an expansionary fiscal policy. And again Austria, the loser of WWI was not able to reach the GDP level of 1913 in 1937. In contrast Germany, the other loser, proved to be rather successful. It could increase its GDP from the lowest point in 1932 until 1937 by more than 40%. On the one hand it introduced an expansionary fiscal policy, financed secretly by the central bank (MEFO-Wechsel) and on the other hand the German economy was removed more and more off the still persisting international market system and transferred into a planned economy with regulated foreign trade, international payments, wages and eventually also prices. Exports and imports were executed in bilateral clearing agreements. So the expansion was not endangered by problems of the balance of payments or inflationary pressures. Moreover these steps allowed preparing the war economy.

5.3 World War II

And so fell Europe into the next catastrophe. Hitler, after having occupied Austria and Czechoslovakia, attacked Poland and occupied in the following years nearly the whole of Europe which was heavily exploited: "Over a quarter of Germany's war expenditures from June 1940 to September 1944 was financed by the conquered countries" (Crouzet, 2001, p. 198). Only the invasion of the Soviet Union brought the turning point of the war. After the defeat of Stalingrad, the landing of the Allies in France in July 1944 marked the end of his existence.

The outcome of WWII was dreadful and far worse than that of WWI. There were not only millions of killed people but a huge number of displaced persons: 6 million Jews had been murdered by the Third Reich. This time there were widespread enormous destructions of houses, industries and of the infrastructure either by aerial bombing or terrestrial fighting. The productive possibilities of industry and agriculture were severely reduced by the lack of coal, and raw materials. At the end of the war GDP in many countries reached only half of the pre-war level. Means of transport were lacking and food was extremely scarce. In Germany the Allies installed a military government and separated the state into four occupation zones. The outlook into the future seemed gloomy.

6. Reconstruction and the Golden Age

6.1 Bretton Woods and Marshall Plan

In spite of the extremely unfavourable conditions the reconstruction of the European economy after 1945 was accomplished in remarkable short time. Towards the end of the 1940s nearly all countries had reached their pre-war level.

There existed several reasons for this outcome. First of all it turned out, that in spite of heavy destructions, as a consequence of the voluminous investments during the war, the productive capacities of 1945 corresponded more or less to the pre-war level. Furthermore it became evident, that the most important factor of an industry is human capital. With an industrial tradition, qualified experts and labour it is possible to reconstruct enterprises very quickly.

But decisive proved policy. The Western Powers drew the consequences from WWI and its aftermath and tried to develop a comprehensive system for the reconstruction of the international economy. Inimical concepts, as this from the U.S. Minister of Finance, Morgenthau, who intended to transform Germany into an agrarian state, were quickly discarded. The post-war system was based on the market economy which was not a matter of course, after the depressing experiences of the Great Crisis. But the authors assessed this system as the most efficient one. They relied on the free flow of commodities, payments and labour.

On the basis of these considerations the system of Bretton Woods was established. It was represented by the International Monetary Fund (IMF) which should support economies in

case of dangerous imbalance of payments. The World Bank should provide favourable long-term investment credits and the General Agreement on Tariffs and Trade should secure unrestricted international trade.

But the Western Powers were aware, that this system provided a model for the future. During WWII all European countries had introduced an economic system which regulated the economy nearly completely – they had planned economies. Furthermore Europe was characterized 1945 by extreme scarcity of food, fuel and raw materials with a heavy imbalance of the Dollar account. So it seemed completely impossible to establish a free market system quickly.

This realizing, the U.S.A. started activities to support these countries economically. First they established the United Nations Relief and Rehabilitation Agency (UNRRA) which provided food and fertilizers. Far more important the direct financial support by the U.S.A. seemed. This was first provided by several sources but was systematized in 1947. The U.S. Minister for Foreign Affairs, George Marshall, introduced the European Recovery Program (ERP). According to this system entrepreneurs could buy machinery for Dollars at the international markets. But they had to pay for it in national currency. These sums were dedicated to the ERP Fund, which granted long-term credits to favourable conditions to indigenous investors. So this program avoided trade imbalances and provided considerable investment capital.

Another important aspect of this system lay in its cooperative character. In 1947 the Organization for Economic Cooperation (OEEC) was founded, where the demand of U.S. aid should be assessed and harmonized. This institution continued to coordinate the European economic policy as Organization for Economic Cooperation and Development (OECD). So one may say that all these activities represented one climax of the U.S. foreign policy.

One important reservation has to be made. All what has been said hitherto regards Western Europe. According to the agreement of Yalta the European continent had been divided into areas of interest. All countries of Central and Eastern Europe were attributed to the influence of the Soviet Union, which understood this arrangement in a specific way. Although the CEE countries were mainly democratic and clung more or less to market system after 1945, they were forced to take over both the political as well as the economic system of the U.S.S.R. This meant politically dictatorship and a regulated planned economy. Consequently these states were strictly separated from their western neighbours. An "Iron Curtain" went down as Winston Churchill expressed it in a speech given at Fulton in 1947. The Czechoslovak Republic intended first to take part in the Marshall Plan concept, but was immediately severely disciplined. In 1949 the Council of Mutual Economic Assistance (COMECON) was founded as an answer to ERP and OECD which regulated the foreign trade within the Eastern bloc and tried also to introduce some supranational coordination.

Also in COMECON economic growth between 1945 and 1950 seemed remarkable. But it was realized according to the political objectives of the state, which envisaged the forceful industrialization of these – partly backward – countries. But industrialization in this system meant during this time heavy industry and armament. Consumer goods were neglected as

well as the agrarian production. Here the collectivization exerted a highly detrimental effect. As a consequence the living standards in the countries remained very low, which annoyed the population and led to upheavals.

In spite of the very successful reconstruction period, Europe's share in world GDP was significantly lower than before WWII. But as the U.S. economy had boasted during after WWII the share of all Western countries (including COMECON) reached its climax with 70%. Europe had not only lost its dominant economic position as a consequence of the war but also its political influence. After 1945 the colonial empires disappeared eventually. Colonies gained their self-determination either peacefully as India, or by fierce fighting as in Indonesia, Indochina, or Algeria. These changes concerned Britain, France, Belgium, Holland, Portugal and Italy. How far the decolonization meant an economic loss for the European countries is an open question. If the contemporaries assessed the economic effects of the colonies they neglected the costs of administration as well as military forces. Also entrepreneurial activities were diverted into the colonies, whereas in countries without them energies were concentrated on the home market (Bairoche, 1993, p. 77).

6.2 The Economic Miracle

The successful reconstruction passed directly over into the Golden Age of the European economy. In Western Europe it provided a period of historically unparalleled prosperity with excessive GDP growth rates. Between 1950 and 1973 they amounted to 4.3% in real terms and 4.1% per capita. The German development was qualified as economic miracle (Wirtschaftswunder). But this was certainly misleading, because nearly all Western European countries performed in a similar way. The cyclical fluctuations were mild; GDP growth never fell below zero. Unemployment decreased to unprecedented low levels. In some countries it went down to 1%. Inflation remained in the acceptable range of 4%. In this period the income gap among European countries could be narrowed. A new consumption society was created with a bulk of new commodities as household machines, television sets, and motor cars. People were able to have vacancies in – neighbouring – foreign countries.

Although this development was called a Miracle economists tried, as a matter of course, to find out its causes. First of all they recognized the fact that the background of economic policy had been provided already during the reconstruction period. The existing institutions of Bretton Woods had envisaged the improvement of foreign trade and had established cooperation among the European countries. This created positive expectations among the entrepreneurs and therefore pushed up investments. During this period the investment ratio went up to roughly 30% of GDP.

Another reason for the extraordinary growth was seen in the technological backwardness of Europe. So it was possible to continue the technological catching up of Western Europe compared with the U.S.A. An elastic labour supply was also regarded as an advantage for growth. Here those countries were in a favourable position, which commanded still a considerable agricultural sector. This secured on the one hand ample supply of labour and

on the other hand the transfer from agriculture to jobs with high value added increased economic growth too.

But also the social situation favoured economic activities. Trade unions pursued a moderate wage policy because they knew that employers would invest profits (Eichengreen, 1996). On the other hand this policy was compensated by the extension of social security (Pizzorno, 1978). But generally one might say that the cooperation of social parties fostered mutual confidence, therefore built up social capital, which fostered the solution of social questions. With the growing scarcity of labour, some European countries started to import workers. The first wave came from Southern Europe: Italy, Spain, Portugal, and Greece. As the situation of these countries improved, the immigration states drew on to former Yugoslavia and Turkey (Sutcliffe, 1999, p. 199).

Also in the Eastern bloc production rose considerably. Their political goals remained in spite of the experiences of the 1950s investment goods and armament. Consumer industry was neglected and agriculture remained inefficient, so that the standard of living improved very slowly. When in 1968 the C.S.S.R. tried to introduce "Socialism with a human face" it was occupied by the armies of the Warsaw Pact.

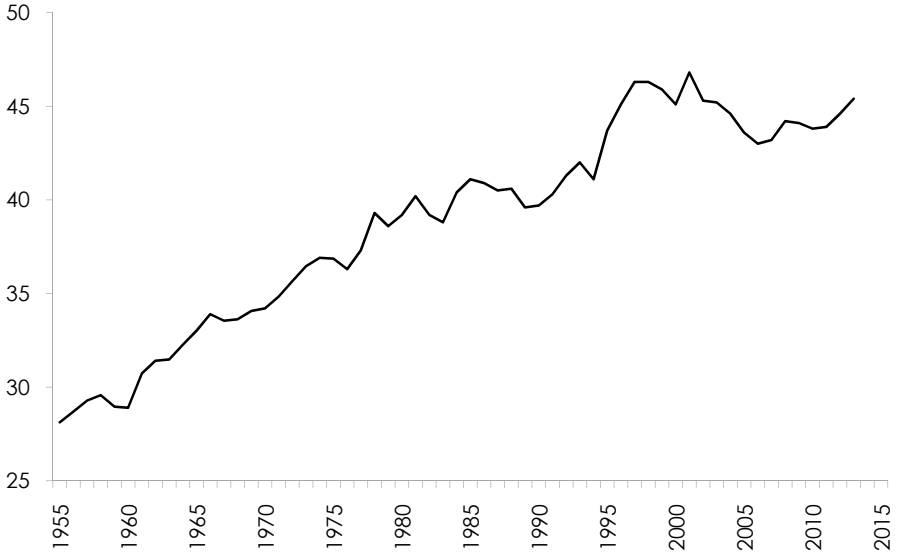
Europe's extraordinary economic growth had repercussions upon the structure of the world economy. The share of Europe increased again in 1960. But as the performance of the U.S. economy in this period remained rather bleak the part of all Western regions decreased a little.

Generally the end of the Golden Age is fixed with the oil crisis of 1973. The fourfold increase of the oil price impaired the European economy gravely. But there were also a lot of other factors, which let the extraordinary growth eventually peter out. The catching up in technology had found its end; the structural effect of labour transfer from agriculture to industry was accomplished. The pressure of third world economies upon traditional European industries like coal, steel, textiles, clothing, and foot wear increased (Crouzet, 2001, p. 224). But also the attitudes of economic agents had changed.

They got used to a permanently growing income. With increasing scarcity of labour, trade unions became steadily stronger. They claimed frequently wage increases beyond the productivity growth. Employers evaded into prices. In spite of dramatically rising personal incomes, likewise increased permanently claims to the state or social security, respectively. As the monetary policy remained mainly adaptive, there developed an inflationary process. With rising labour costs some countries lost their competitiveness. The deteriorating balance of payments forced them to pursue a restrictive policy, so that the slogan "stagflation" came up.

Figure 4: Tax and Contribution Ratio in Austria

As % of GDP



Source: WIFO.

But additionally a change in the institutional structure of the European society enforced the break of economic growth. Until the end of the 1960s all the intentions and energies of the society, of all social groups was directed to economic growth, to the improvement of income and the standard of living. Historically this was an exception, because most of the times intellectuals were very critical of economic activity generally and of the capitalist system especially (Kahan, 2010).

In 1968 there exploded a new ideology among students and academics, which tried forcefully to destroy the capitalist system. Two years later the Club of Rome promulgated a study which stated, that with continued economic growth the system is bound to break down around the millennium (Meadows et al., 1972). It is evident that this fundamental change in the institutional structure of the society induced consequences for the expectations of the entrepreneurs (Butschek, 2006, p. 351).

Finally the system of Bretton Woods with its fixed exchange rates broke down and was replaced by floating ones. The Dollar was devalued and its convertibility into gold was suspended.

Of course the end of the extraordinary growth was very much deplored by the contemporaries, but in hindsight it might be said that this was not a dramatical crash but a return to normalcy (Morewood, 1999, p. 228) with growth rates between 2% and 3%. But this normalization included the return of unemployment. There remained only one decisive difference with consequences for economic policy: the until this time sovereign reign of Keynesianism at the universities was detached by Neoclassics.

7. Internal and External Integration

7.1 The Road to European Union

European integration certainly proved to be a secular event in history. The first time since Charlemagne European peoples and regions were bound together, but now as result of free decisions. As already has been pointed out, U.S. policy after 1945 had envisaged by the system of Bretton Woods the reconstruction of market economy in Europe. By ERP the way towards this goal was alleviated and by OECD the cooperation of Western European countries was fostered. One additional step in this direction meant the establishment of the European Payment Union (EPU) to give way to multilateral payments. Although also tariffs were considerably reduced, it was impossible to equalize them and there remained considerable non-tariff restrictions; so new roads to further improvement of foreign trade had to be found.

Additionally there arose the intention to integrate the former enemy into the community of the Western European countries. France started this initiative by promulgating the "Schuman Plan", which led finally to the founding of the European Coal and Steel Community" (ECSC). By this agreement France, Germany, Italy and the Benelux countries established the tax free cooperation of the respective industries. Its administrative structure served as model for further steps of integration, which took place with the treaty of Rome 1958, where the European Economic Community (EEC) was founded. It represented a customs union, but envisaged a common market with the free flow of commodities, services, payments, enterprises and labour. It included a common agricultural, regional and traffic policy.

In 1960 the other OECD members as Austria, Denmark, Norway, Portugal, the U.K. and later Finland founded the European Free Trade Association (EFTA), which was a loose trade community. In spite of this separation one has to realize, that both institutions represented important steps for further European integration.

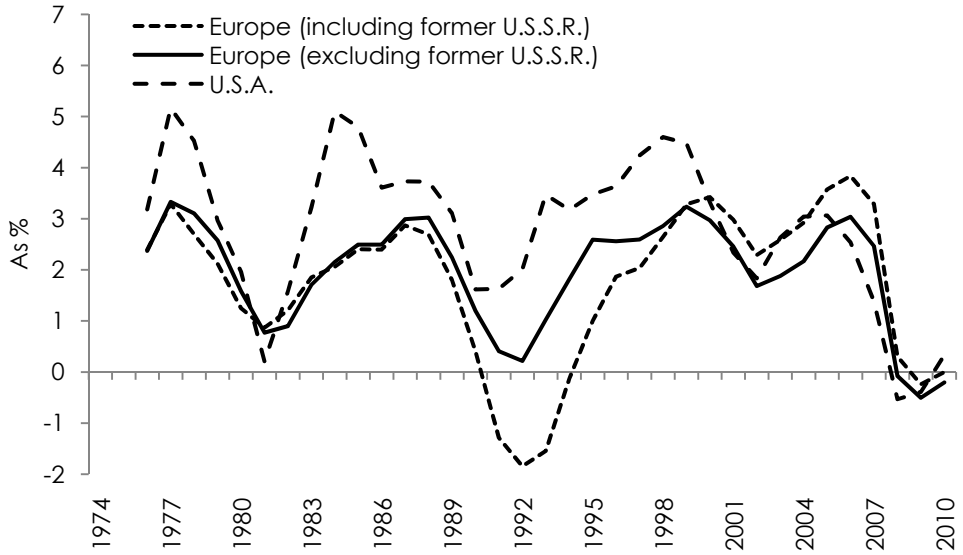
The first enlargement of EEC took place in 1973 with Denmark, Ireland and the U.K. It became possible only after Charles de Gaulle had resigned as the president of the French Republic, because he fiercely opposed the British membership (Steininger, 2000, p. 81). The Northern countries were followed by Greece, Portugal and Spain in the eighties. Finally Austria, Finland and Sweden became members in 1995. The greatest enlargement brought the reception of the Central East European countries with Cyprus and Malta. By these steps integration developed from a partial approach to nearly all embracing representation.

But also the political structure of the EU changed over time. As it had turned out, that the free flow of commodities and services had been hindered by administrative barriers the energetic President of the Commission, Jacques Delors, tried 1987 to provide the development of dynamic incentives by establishing the single market with the prospect to introduce a common currency in 1999 and had the Economic and Monetary Union (EMU) founded. Membership of the latter was bound to specific conditions: the state deficit must fall short of

3% of GDP, the public debt had not to exceed 60% and the inflation rate must not be higher than 1.5 percentage points above the level of the three most inflation-stabile EU countries as well as the average of the long-term interest rate of the three countries with the lowest inflation plus two percentage points and lastly the participation at the Exchange Rate Mechanism (ERM).

The treaty of Maastricht 1993 not only changed the name from European Communities (EC) into European Union (EU), but established the common foreign and security policy. In 1999 the treaty of Schengen made possible the free intercourse of EU inhabitants and in 2009 the treaty of Lisbon provided new aspects of the Union's constitution. Most important proved to be of course the changes of the monetary system. In 1998 the European Central Bank was established and in 2002 the Euro was introduced as legal tender in 12 of the 15 member countries. The U.K., Denmark and Sweden remained outside the Euro zone.

Figure 5: Economic Growth in Europe and the U.S.A. from 1975 to 2011
3 years moving average



Source: WIFO database.

The political consequences of the EU are impressive beyond any doubt. Its economic effects on the other hand are very difficult to assess (Breuss, 2000, p. 302). It seems that in the early phases of integration positive effects predominated and contributed to Golden Age. After the oil price shock the consequences for economic growth are not so clear. In 1960 the European share in world GDP increased at the cost of the U.S.A. From 1970 onwards it fell continuously stronger than the U.S. economy. Of course this comparison does not necessarily indicate that it grew very slowly, because the newly industrializing countries (NICs) were catching up very successfully. Anyway, since 1975 Europe expanded slower than the U.S.A.

Until the change of the millennium and after, the economic policy of the EU mainly concentrated upon competition and economic stability. Moreover it dealt with environmental questions. The EU took a leading position and realized the system of trade with certificates to dampen the CO_2 pollution.

7.2 The Implosion of the Soviet System

When in the title of this chapter it is distinguished between internal and external integration, the first expression intended to describe a process which took place in Western Europe, the development of the Capitalist countries. It was a process in this part of the continent. A completely other development took place in the eastern part of Europe. Since 1950 the Eastern European countries had to organize their economies according to the Soviet system. As has been already pointed out before, initially the building up of heavy industry and armament provided considerable economic growth for the COMECON countries. (Comparison with capitalist countries is difficult because GDP calculation there rests on the assumption of more or less equilibrium of supply and demand, whereas unintended stocks as well as absolute shortages were typical for the Soviet system). When the structural effects of industrialization of these rather backward countries – except C.S.S.R. – petered out growth rates diminished, as the eventually expanding consumption industries could not compensate for this loss.

But it also turned out, that the Soviet system was detrimental to technical progress. As the Cold war was substituted by peaceful competition, COMECON countries tried to compensate this shortage by imports of modern Western technology. This became possible, because Western banks were prepared to finance this trade. But the idea of import-led growth failed. Neither was the system in the position to incorporate the imported Western technology, nor was it able to earn sufficient Western currency to repay their debt. So the Western credits had to be finally used to pay them (Morewood, 1999, p. 230). But the decisive fact was that fundamentally the Soviet economic system was never in the position, to allocate the resources in an economically sensible way (Crouzet, 2001, p. 248).

So finally this political and economic system broke down unexpectedly in 1989. And now the external European integration set in. All Central East European countries became democracies and changed their economic system to market coordination. This of course caused a critical period for them, because the change of the system brought heavy backlashes for some years. But all of them finally succeeded to establish a capitalist system, which allowed the CEEC to become members of the EU in 2004. So one could say that with the Eastern Enlargement the great project of the political and economic integration of Europe was accomplished.

8. Europe and the World Economy

The historical analysis reveals the unique importance of Europe for the economic, political and social progress of the world. Starting in the antiquity it developed through the following centuries eventually all preconditions for the Industrial Revolution. This process provided a fundamental change not only of the economy, likewise of the institutions and therefore of the society. There arose a completely new type of man.

The ensuing tremendous technical and economic capacity of Europe created a wide distance to the non-European cultures. When Capitalism reached its first climax in the Silver Age before WWI, the income of Europe and its offshoots lay dramatically above the rest of the world. In 1913 the former region amounted to 70% of world GDP. The economic and technical superiority of the West gave way to the age Imperialism with a lot of atrocities.

WWI meant the first dramatic backlash for Europe, followed by the Great Crisis of 1929. In spite of these events the economic and political dominance of Europe remained more or less unimpaired. So that even the tremendous destructions and losses of WWII did not change the international economic structure fundamentally. In 1950 the share of Europe and its offshoots reached its historical climax with more than 70% of world GDP.

But in other respects the situation had changed fundamentally. First of all the economic predominance of the West resulted now mainly out of the U.S. economies' strength. Europe lost its political and military power; therefore it lost its colonial empires. The eastern part of Europe was forced into the Soviet system. And additionally a decisive change had come into force, because non-European countries set the first steps to industrialization. Japan had tried to imitate the European institutional structure successfully with the Meiji restoration in 1867.

The next wave of changing the institutional structure of the societies to catch up to the European income level started after WWII in the Far East. In the course of the time always more regions were able to set in a capitalist growth process. The success of these ambitions can be read in the steadily decreasing share of Europe and its offshoots of world GDP. It amounts now to 45%. This is still remarkable, because the share in world population is only 17%.

This process can be regarded as historical "normalization". As in the precapitalistic era all high cultures with their agrarian economies had commanded the more or less equal income level, the same structure is going to develop now. In the far future one may expect again a situation with more or less the same income all over the world but upon an excessively higher level than in the past. To have enticed this process is the unique historical merit of the European economy.

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