5. Differences in early institutional development

5.1 Introduction

As we have seen, the institutional environments in the MENA region differ widely from those in Western Europe. Since institutional quality significantly impacts economic development, it is not surprising that we observe divergent economic performances. However, since Western European institutional structures seem to be more conducive to economic growth, why did institutions not emerge equally in the Arab region? Different starting points, historical accidents, cultural developments, and path dependence turn a society and its institutions into what they are. Hence, to understand the state of MENA’s institutions, looking at the history of the region is unavoidable. Of course, historical explanations cannot directly help improve MENA’s current economic situation. However, a historical investigation into the origins of the differences in institutional developments between the Arab region and Western Europe might induce a better understanding of the MENA region per se. This would in turn improve the understanding of the institutional structure and, hence, more useful approaches for exogenous institutional change can be expected. In general, it might be possible to judge whether exogenous institutional change could be helpful at all. Furthermore, a better historical understanding helps detect growth-inhibiting institutional structures in detail. Hence, exogenous interference might be successful, since the inefficiency might be placed at a less obvious and unexpected point in the institutional system, which can only be detected via a profound historical knowledge of the respective region.

To examine the Arab institutional development right from its state of emergence, with respect to institutional consequences for the region's long-term economic development path, Western European institutional history must also be observed otherwise the differences would not become obvious. Nevertheless, this section does not emphasize Western Europe’s development. Western European history is exhibited when necessary for a comparison with the Arab region. But a description of Western institutional development is not provided in detail. The MENA region is the focus and events in Western Europe are depicted and analyzed regarding their institutional relevance if necessary. This is even more the case since we must not only ask why regions such as MENA lagged behind in their economic development, but also why Europe developed so differently.

At a certain point in time, the Arab region was the most advanced region in the world and by far outperformed Western Europe. Between the ninth and 15th centuries the Arab region was far superior in scientific, intellectual, and economic matters. This makes it the more surprising that fortune became com-
pletely reversed. One could have expected that the Arabs benefitted from their advances and that what happened in Europe from the 16th and 17th centuries onwards should have happened in the MENA region several centuries before. On the contrary, the Arab countries underwent a period of scientific, intellectual, and economic decline. They were overhauled by Western Europe and have been unable to re-attain their glorious times of around the turn of the first millennium.

Since history and path dependence are crucial for institutional development, the turning point in Arab history is an interesting object of study. The institutional environment was supportive of societal and economic progress until a certain point in time. Afterwards, decline, at least in relation to Western Europe, and stagnation characterized the region for centuries. Compared with Western industrialized states, the divergence in living standards has lasted until today. Hence, certain key events must have altered the institutional system. Since institutions are inertial and complementary, the reversal might have initiated the institutional modifications and developments that have endured until today. Further institutional alterations and developments built on the changes that must have occurred. Therefore, this part of the study concentrates on certain historical events that strongly modified the institutional structure. Since emphasis is on the turning point, the consulted events occurred a long time ago. It will be examined why Arabic supremacy came to an end. Therefore, history after 1500 will be regarded to a lesser extent, although the historical events of the past 500 years have still influenced Arabic institutions. However, the starting point of institutional divergence between the MENA region and Western Europe will be examined.

This also means that certain developments in Western Europe shaped the prevalent institutional environment in a way that supported the Industrial Revolution and the unique growth performance observed since. Several authors trace Western Europe’s unique development path, which cumulated in the Industrial Revolution and the emergence of sustained economic growth, back to events taking place hundreds and even thousands of years ago. Accordingly, the Industrial Revolution was based on a particular worldview that emphasized Newtonian mechanics and infiltrated Western societies in the 18th and 19th centuries. In turn, the development of Newtonian mechanics required the emergence of modern sciences in the 16th and 17th centuries, which, again, depended on the acceptance of naturalism and, therefore, of human reason and rationality during the Middle Ages. The comeback of Greek philosophy since the 12th and 13th centuries, and thereby a natural philosophy based on natural laws and reason, permitted the emergence of a social value system that supported the detection of nature as an autonomous entity. Of course, naturalism faced several challenges.

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66 See, for example, Grant (1996); Huff (2003); Jacob (1997); Lipsey, Carlaw & Bekar (2005).
in Europe as it did in other societies. However, historical accidents made the unique development possible. Therefore, Western Europe’s political pluralism was a decisive development factor. The many countries with their changing borders and powerful city states, as well as ecclesiastical and terrestrial power struggles, made the overall oppression of naturalism impossible. The acceptance or rejection of naturalism often depended on political strategies; hence, rulers formed alliances and supported or rejected the natural worldview.

Western European societies were, to varying degrees, infused with a value system and a worldview based on naturalism. This allowed the mechanical innovations that were necessary for the Industrial Revolution and thereby sustained economic growth. Modern sciences afforded the knowledge as well as, even more importantly, the mental attitude necessary for the discovery of nature and the universe. It is exactly this relationship between worldview and sciences and technology that differed in other parts of the world. The story of Western Europe’s economic success can inter alia be ascribed to its handling of natural philosophy and human reason and, in the end, with the emergence of modern sciences. The acceptance of a naturalistic worldview happened accidentally. Western Europeans did not consciously decide to accept naturalism because they knew this would lead to a unique process of economic growth centuries later. Hence, Western Europe’s whole scientific and economic history can be traced back to accidental events that pushed the region onto a certain development path. Further historical accidents were necessary for Western Europe to end up in the Industrial Revolution. The Arab region, or China, for example, accidentally took other paths and ended up in different situations.

First, the build-up of the state and the early relationship between state and religion was a decisive factor for the different developments in the Arab region and Western Europe. Then, as already indicated, the varying worldviews based on the acceptance of naturalism or Islamic occasionalism, respectively were formed. It might seem abstract from a modern educated economist’s perspective that a society’s worldview is described as a significant factor for economic development. Nevertheless, worldview and metaphysical beliefs have been a central part of economic thought. Only in recent decades has the enthusiasm regarding these philosophically touched subjects as part of economic theory been lost. In any case, they did not lose their significance for economic matters.

The particular system of law also plays a decisive role in shaping societies. In addition, the emergence of corporate bodies in the West had a crucial impact on economic and societal progress, which was missing in the MENA region. The education systems and the degree of independence of the universities differed between the regions. Western Europe’s political pluralism, the Arab waqf system, and Arab hereditary law as well as further historical differences were significant factors that influenced the directions of the development paths.
5.2 The emergence of state and religion

Although differences in religious thought are not emphasized in this work, the formative influence of religion cannot be denied in both Western Europe and the Arab world. Western Europe is shaped by Christendom. Its history is governed by events that can be ascribed to religious matters in one way or another. However, the differences in the emergence of the religion and the state, as well as the relationship between religion and state-run structures are conspicuous in both regions (Lewis, 2002).

After emerging in Judea Christianity spread westward, overcoming many cultural and societal borders. However, compared with Islam, Christianity spread slowly. It took nearly 400 years until Christendom became an official state religion. Christianity had to compete with the culturally and intellectually advanced societies of the Roman Empire. On its way westward, it was forced to adjust to the surrounding world and was affected by external influences. In addition, early Christians were not endowed with military forces. Hence, they could not conquer the Roman Empire and impose their rules and structures on it. Christians had to diffuse their beliefs by conversion and, at least for some time, against the power of the state (Grant, 1996, p. 182; Lipsey, Carlaw & Bekar, 2005, p. 225). Furthermore, conversion had to take place within the prevalent governmental and societal structures. That is to say, Christianity was born into the pre-existing structures of the Roman Empire. Therefore, formal institutions such as the judiciary, political system, and commercial structures already existed before the emergence of the religion. Thus, Christianity had to accept the pre-existing structure of institutions. Since its adherents had lived within these structures before becoming Christians, they did not refuse all of the prevalent institutions. Of course, Christians tried to reform institutions according to their vision. But right from the start, Christianity developed within an existing and functioning state. Its adherents were influenced by the structures and institutions of the Roman Empire and did not abandon all of those structures. They rather diffused their beliefs within the structures of the state and retained the system where possible following their conviction. In the end, Christianity became the state religion.

Although attempts were made to establish ecclesiastical supremacy, the target was not to establish a theocracy. The dominance of church and state might have changed several times; however, they have always been regarded as two independent entities.67

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67 Christendom’s secular tradition and the acceptance of a terrestrial power is confirmed in several passages in the Bible, the most popular being Matthew 22.21: “Render therefore unto Cesar the things which are Cesar’s; and unto God the things which are God’s.”
Therefore, Christianity has a kind of secular tradition. Since the time of its emergence, Christianity has never been equal to the state. Despite tendencies to unite state and religion as one entity, Christians are used to being subordinated to both a terrestrial and an ecclesiastical power. That is to say, since its emergence, Christianity practically had to accept two kinds of jurisdiction: a terrestrial and an ecclesiastical one (Grant, 1996, p. 7ff.). The fact that Christianity met different cultures and societies on its way westwards, and that it grew up in the already developed structures of a state, led to its pluralistic tradition, which became important for its further development as will be seen.

Events were different in the Arab region. Islam emerged within a stateless environment. Muhammad established a state on the Arab peninsula where there had been none before. Prior to the Arab state, social structures had been solely ruled by bloodline, clanship, and familial and tribal affiliation. Of course, social affiliation remained important. But, decisively, no general state-run structures, no formal institutions, no legislature, no overall legitimate power, and no citizenship subsisted. The first structures of a state were founded simultaneously with the emergence of Islam. During the time of revelation (610–632), Muhammad formed the religious community and simultaneously created the first state structures. Hence, the Arab state originated in religious revelation. Religious doctrines and then prevalent social norms and structures were the basis for the build-up of the Arab state. Therefore, religion and state were equivalent right from the start. No difference between a terrestrial and an ecclesiastical side existed. State and religion were one entity. Islam never had to adjust to any kind of pre-existing institutions, apart from the customs at that time, which, of course, entered the Scripture. Islam by itself created the institutions. That is to say, only one instance existed, which explains the theocratic tradition of the Arab region (Lewis, 2002).

During Muhammad’s lifetime (570–632) the first structures of a state were created. These comprised a kind of judiciary – the sharia was written down later – the emergence of a bureaucracy, and a system of taxation (Halm, 2006, p. 26). After Muhammad’s death, almost the entire Arab peninsula belonged to the new Arab state. The locals converted to Islam and, by that, subordinated themselves to the religious and statist doctrines.

In the following centuries, the expansion of the Arab Empire continued and reached its peak in the second half of the ninth century. At that time, the Empire stretched from the Pyrenees to Central Asia and comprised nine to 10 million km² and between 35 and 40 million people (around the 10th century) (Issawi, 1995, p. 39). Even before the emergence of the Arab Empire, the MENA region’s geographic location made it a main trade centre. All goods traded between Western Europe, Byzantium, India, and China had to cross the Middle East, North Africa, or the Arab peninsula (Issawi, 1995, Ch. 2, p. 31–55).
The conquests of the Arabs, however, occurred within a relatively short period of time and stretched over a large area. Therefore, the Empire suddenly included many different social groups and cultures. The conquered regions were not forced to convert to Islam. Instead, the inhabitants received the status of protégés and were relatively free to pursue their own religious and cultural traditions. The protégés were guaranteed protection of body and life, of property and religious freedom. Service in return was a poll tax the non-Muslims had to pay. This tax was an important source of income for the Empire and its military forces. However, the Arabs were not interested in the religious and cultural affairs of their protégés.

Religious freedom and the acceptance of other cultures and traditions within the Arab Empire meant that Muslims were not forced to critically assess the alien as well as their own cultural and religious doctrines. Critically assessing a strange subject usually leads to a critical view on your own. Since medieval Arab religious leaders were not interested in the alien religions and traditions within their Empire, they did not critically deal with the foreign or their own religious and social doctrines.

The disinterest incorporated the worldviews and the work of foreign scientists that, since the beginning of the ninth century, travelled to the Arab scientific centers such as Baghdad, Damascus, and later Cordoba. Non-Muslim scientists and philosophers, whether from within or from outside the Empire, were allowed to practice their religions and follow their own convictions. Furthermore, Islamic religious leaders were not even interested in the alien religions and worldviews. According to Lipsey, Carlaw and Bekar (2005), this ignorance with regard to non-Muslims hindered Islamic religious leaders from becoming natural philosophers compared with Christian clerics. “Also, since no attempt was made to persuade a sophisticated public to convert, the religion’s leaders did not need to engage them in intellectual debate on their own terms. Thus, although many of the conquered areas contained highly sophisticated societies with many scholars who were well versed in all branches of philosophy, including natural philosophy, the religious leaders themselves did not develop a serious knowledge of philosophy” (Lipsey, Carlaw & Bekar, 2005, p. 269). Grant (1996) also considers the fact that Islamic theologians (at least those that came after the Mutazilites, an early rational theological school) and religious leaders were not natural philosophers, which could have been decisive for the decline of Arab sciences after the 15th century.

In Western Europe, prospective theologians were required to have a master of arts and, hence, be educated in natural philosophy (Grant, 1996, p. 174f.). Christian theologians, even the conservatives, utilized natural philosophy, although it might have been considered suspect in parts. However, in Islam natural philosophy was always forced onto the defensive. It was not officially taught at the madrasas or universities, but privately at the scholar’s home. Religious lead-
ers and Islamic theologians of the 11th century and later were not educated in natural philosophy. The philosophers and scientists, on the contrary, were influenced and embedded by orthodox Islamic thought since they also had to fulfill their public and religious duties.

Regarding the emergence of state and religion, two points must be recorded. First, the foundation of the state and religion and the interrelationship between them differ greatly between Western Europe and the MENA region. Right from the start, both regions were situated on different development paths. That is to say, both regions fall back on different starting points and, hence, the different development paths the regions took are a logical result. We cannot use the same standards to judge the developments in the two regions since the bases differ. Nobody can judge medieval Muslims for their theocratic traditions or for their recognition of sharia as the only valid law. Furthermore, if religious structures are the foundations of the state, it is easier for religious conservatives to exert influence and oppress opposing views.

5.3 The acceptance of Islamic occasionalism and the role of foreign sciences

It might seem strange that a certain worldview should have a significant impact on a region’s economic development. ‘Worldview’ itself is not a typical economical variable and educated mainstream economists might find it difficult to establish a connection between a former value system and contemporary growth. This might be all the more the case since the observed period dates back almost a millennium. In any case, the distinct origins on which both societies were built will be elucidated and their significance for economic progress will become obvious.

The crucial differences are in the realm of metaphysics and relate to the idea of man and nature. The Christian belief states that God endowed man with reason and free will. God created the world and, therefore, everything that is created has a cause, even the world and God. Nature was created by God as an independent, autonomous entity and, therefore, nature can exist independently without God intervening. This is the case since natural laws exist that follow from causality. Occurrences without a cause are called miracles. But it is not God who lets the Earth circulate around the sun or who is responsible for rainfall or droughts. He does not make plants grow, the sun shine, and so on. These are things nature does by itself based on natural laws and, hence, on causality. God wanted man to be capable of understanding and, therefore, examining the natural world. Man should be reasonable and able to judge his actions and, hence, should be able to assess the trueness of moral values. Man can consider and de-
cide independently which morals and values are right and which are wrong. Furthermore, man is allowed and capable to examine the world, God, and the Scripture, which, therefore, is open to interpretation (Grant, 1996; Huff, 2003, p. 89–117; Lipsey, Carlaw & Bekar, 2005, p. 232–235).

The orthodox Islamic theory, on the contrary, states that God is above or without reason. God and everything concerning His existence is situated in a sphere or dimension that man is incapable of understanding. Therefore, man cannot know which values are right and, hence, he is not endowed with reason and free will. Even the interpretations of the terms ‘reason’ and ‘free will’ are manmade and not God-made or God-given. God is the only creator. Man does not know which values are right and which are wrong, since he cannot judge whether something is logical, rational, and reasonable. He cannot know because he is incapable of understanding. Therefore, the only thing man can do is obey. Because man has no reason and cannot understand, God gave him the revelation, the Quran, which was not created but is perpetual. Everything man needs to know is written down in the Scripture. He shall not consider by himself. All he has to do is follow the rules. The Quran is not meant to be full of bans but instead is a guide to help man live his life in a way that leads to salvation. This guidance is not open to interpretation, since man is not able to interpret. The Quran is given once and for all by God; at the time of the revelation it was perfect, complete, and unchangeable. Hence, the Quran was given to man in a final version.

The orthodox Islamic doctrine rejects causality since God is the only cause. The Earth, for example, circulates around the sun because God wants it to. If He wanted to, He could stop the Earth circulating immediately. If a person is thirsty, drinks some water, and is no longer thirsty, this is not because of the water he drank. Drinking the water is not the reason for not being thirsty anymore. It is just the way God wants it to be in this moment. Hence, causality and, therefore, natural laws do not exist, because God is the only creator. This doctrine is called Islamic occasionalism and was accepted at the disadvantage of naturalism, which asserted itself in Western Europe (El-Affendi, 1998; Fakhry, 1998; Hye, 2004; Sheikh, 1982).

However, modern science is based on causality and natural laws. Hence, the rejection of causality and rationality inhibited the necessary developments for the emergence of modern science, which, in turn, enabled the mechanistic worldview required for the Industrial Revolution.\(^\text{68}\) Since Islamic occasionalism rejected causality, natural philosophy per se came to an end in the Arab region. Hence, the implementation of Islamic occasionalism and of orthodox Islam was

\(^{68}\) See, for example, Grant (1996); Huff (2003); Jacob (1997); Lindberg (1992); Lipsey, Carlaw & Bekar (2005).
a watershed in Arabic scientific history. The emergence of modern sciences had become impossible.

The body of natural sciences can be traced back to the Greeks and the Hellenistic doctrine. In Europe, after the end of the Roman Empire, Greek learning was lost for hundreds of years and was brought back by the Arabs in Spain. Mainly in Cordoba, the works of the Greek philosophers and scholars were translated from Arabic into Latin and entered Middle Europe via the Pyrenees in the 12th and 13th centuries. The Arabs had earlier been influenced by Greek learning. Under the Abbasid Caliphate (750–1258), which brought the capital of the Arab Empire from Damascus to Baghdad, great scientific efforts were made and science flourished in many places, especially in Baghdad and, about two centuries later, in Cordoba. At the beginning of the ninth century, systematic translation efforts from Greek into Arabic were conducted and soon all important works were available in the new language of science: Arabic.69 From the ninth century until the end of the 15th century, the Arab region had the most advanced sciences worldwide. As Huff writes, “Considered altogether, in mathematics, astronomy, optics, physics and medicine, Arabic science was the most advanced in the world” (Huff, 2003, p. 52). Arab mathematicians in the 11th and 12th centuries achieved mathematical innovations that were not accomplished by Europeans until the 15th and 16th centuries (Huff, 2003, p. 51). Scholars from all over the world met in Baghdad, where they brought their knowledge together and created new ideas. This means that it were not necessarily Arabs who forced scientific thought and research. Iranians, Christians, Jews, and people from other parts of the world were involved. Greek science and the thoughts of rationality and reason affected the work and the worldview of the philosophers, scientists and, therefore, urban society in general, as it did in Western Europe hundreds of years later.

Between the 12th and 14th centuries, many popular Arab astronomers tried to overcome and reform the Ptolemaic planetary system or geocentric model, in which the Earth is seen as the centre of the universe with all other planets, including the sun, circulating around it. In Western Europe, this evolution took place in the 16th and 17th centuries. The Arab astronomer Ibn al-Shatir (d. 1375) developed planetary systems that were identical to those of Copernicus (1473–1543) except for some parameters (Huff, 2003, p. 55ff.). Mathematically these models were equivalent to later European models. But, for some reason, the Arabs did not take the last step to the heliocentric worldview, the starting point for modern science. As Huff writes: “To the degree that the planetary models of Ibn al-Shatir and those of Copernicus are virtually identical with only minor differences in some parameters, the problem was not one of mathematical

69 Most Greek works were already available in Aramaic and just had to be translated further into Arabic by Aramaic-speaking Christians in the Fertile Crescent (Halm, 2006, p. 43).
modelling, but one of conceptual or metaphysical innovation or both” (Huff, 2003, p. 61).

Hence, early Islamic philosophers and scholars were not reluctant to Greek learning. On the contrary, Greek philosophy had a significant influence on medieval Arabic sciences and even on Islamic theology. However, science in early Islam consisted of the mathematical sciences, (natural) philosophy, theology (kalam), and Islamic law (fiqh). Mathematical sciences “primarily comprised the quadrivium of late antiquity: namely, arithmetic (…), geometry, astronomy and musical theory, and their applications in fields such as optics and mechanics” (Sabra, 1994, p. 1f.). Philosophy was closely related to science and theology. It “always explicitly or implicitly signified a body of doctrine and a style of thought that was dominated by a Neoplatonized Aristotelianism carried over from Aristotle’s late Greek commentators” (Sabra, 1994, p. 3). Hence, Greek ideas were well received in Islamic philosophy between the 9th and 14th centuries. Greek philosophy was further developed in Arab scientific centers, and many popular philosophers at that time were Arabs or foreign scholars carrying out research in popular Arab cities (Huff, 2003, p. 68). Nevertheless, in medieval Islam philosophy was called the foreign science. It had already existed before Islam came into the world and was imported into Arabic culture from the Greeks. Although the Arabs were the leading scientists and philosophers for several centuries, their subject was considered foreign, since it had not emerged within Arabic culture and society (Huff, 2003; Sabra, 1994). Therefore, natural sciences and philosophy were the least respected sciences. The efforts of scholars and philosophers were appreciated, for example, regarding their medical services. However, most of them held an official job such as physician, teacher, or court-appointed official. Their profession as a natural scientist or free-thinker was, in general, not popular. Especially after the Islamic doctrine was almost fully developed after the 11th century, the work of natural scientists and philosophers was regarded as disrespectful to Islam and was dismissed as blasphemous.

However, Islamic theology or kalam depicts a specific form of theology based on reason and rationality (Huff, 2003, p. 47ff.; Sabra, 1994). According to Sabra (1994, p. 11), “kalam was an argumentative approach to religion which sought, through discussion and discursive thought, to interpret and transform the content of the Islamic revelation into a rationally-based doctrine.” The theologians were called mutakallimun in Arabic. The fact that reason and rationality were discussed within the theological context already indicates the controversy regarding the traditional orthodox Islamic doctrine.

The traditional view held that man did not possess reason and conscience, since he was not able to understand. Accordingly, God is the only creator, causality does not exist, life is predetermined, and, since man can neither conceive God, nor the Scripture or human life per se, he must obey and take the Quran
literally. To study (not to interpret!) the Quran and the sunna was the subject of Islamic law or fiqh, which, therefore, was the most reputable science. Theology and philosophy were less accepted since both subjects tried to examine God and nature. However, such an approach was blasphemous, since God and nature did not need to be examined. Everything necessary to human life was given by the Quran. The Quran was perfect and complete. It should not be interpreted, changed, or adjusted. Hence, to deal with theology or philosophy was just not necessary or even forbidden from a religious point of view. It was more honorable to study the Quran, without intending to interpret it. Hence, the fiqaha, or jurisconsults, were not allowed to use their reason, conscience, and intellect to create statutes. Everything concerning human behavior, all rules and required punishments, were written down once and for all in the Quran. Man was not allowed to interpret, change, or enlarge these documents. What was written down had to be taken literally.

Several theological schools, rational and orthodox, emerged since the early beginnings of Islam. Kalam, which means ‘speech’, ‘word’, or ‘discussion’, however, became associated with the school of the Mutazila. The Mutazilites held that reason was the basic truth of everything, even religion. Hence, their system of theology was purely rational (Sheikh, 1982, p. 14). The Mutazilites were persuaded by the creation of the Quran, man’s free will, and indicated the grave sinner as being neither a Muslim nor a nonbeliever, but an intermediate person (El-Affendi, 1998). The biggest controversy compared with orthodox theology and, hence, fiqh involved the creation of the Quran. Although the Mutazila insisted on the creation of the Quran, the traditionalists held the view that the Quran was perpetual. Furthermore, the Mutazila conceded reason, conscience, and free will to man. Hence, human life was not predetermined. Man was able to understand and interpret the created Scripture. He could differentiate between good and evil and, hence, make moral judgments. They allowed man intellectual activity and developed a remarkable theory of knowledge in Islamic intellectual history (Sabra, 1994). The Mutazilites were able to further develop and foster their ideas of reason and rationality through the influence of Greek philosophy and were politically supported by the caliphs at the time. For its adherents religion meant no more than superstition (Huff, 2003; Lipsey, Carlaw & Bekar, 2005). However, under the Mutazilite predominance, opponents of their view could be punished and imprisoned.

The Mutazilite school dominated Islamic theological thought for 100–150 years. Things began to change under the rule of Caliph Ja’afar al-Mutawakkil (847–861). The caliph himself was not an adherent of the Mutazilite school. Instead, under his rule the Asharite school (al-Ashari, d. 935) gained momentum. The Asharites did not totally reject rationalism. Nevertheless, the Asharite school was persuaded by the perpetuity of the Quran; hence, according to them, the Quran was not created but existed in eternity. Furthermore, the Asharites dif-
fered from the Mutazilites regarding man’s free will and reason. Accordingly, God is the only creator and every action is created by Him. For example, if one wants to write something on a piece of paper, “God creates in his mind the will to write and at the same time He grants him the power to write” (Sheikh, 1982, p. 19). Hence, the Asharites take a path in between free will and complete determinism, since God creates the will to write, but does not accomplish the action by Himself (Sheikh, 1982, pp. 15–20). Further differences between Mutazilites and Asharites existed, for example, regarding God’s attributes, beatific vision, and the legitimacy of political power (Sheikh, 1982, p. 14f.).

However, al-Ashari (873–935) can be described as the finisher of the idea of Islamic occasionalism, which was modified and further distributed by al-Ghazzali (1058–1111) and established itself as a main doctrine in Islamic theology (Halm, 2006, p. 37; Sabra, 1994, p. 26). Hence, although rationalism and reason played a decisive role in Islamic theology, the orthodox Islamic doctrines could at least prevail.

The discipline of kalam, however, was not able to resist the orthodox tendencies. From the 11th century onwards, kalam declined rapidly. This was because of the pro-traditionalist tendencies within kalam itself, which broke with its original basis of rationality and reason; but the decline was also rooted in kalam’s failure to develop a complete philosophical system (El-Affendi, 1998). The dialectic theologians (mutakallimun) who succeeded the Mutazilites—the Asharites— at least rejected causality and natural law and accepted Islamic occasionalism. For them, God was the only creator. They could not tolerate the idea of the creation of the Quran and of man being able to interpret the Scripture. Hence, the Quran was never subjected to the kind of criticism to which the Bible was exposed in the West. Kalam became mingled with Islamic philosophy and, therefore, was defeated by orthodox Islam, as were natural philosophy and sciences per se.

Two theses exist to try to explain the decline of natural sciences in medieval Islam, the discipline for which medieval Arabs were so well known. The marginality thesis states that natural sciences never played more than a marginal role in Arab society (Huff, 2003). The so-called foreign sciences never belonged to the body of Islamic society and culture. Therefore, the marginality thesis affirms that natural sciences finally played a minor role, even in the lives of Arabic scientists. Huff explains that “people are always located in multiple roles and statuses. Consequently, the attitudes, interests, and capacities of one situation are often extended to another. This means that all social organizations and institutions are interdependent” (Huff, 2003, p. 64). Huff states that Arab natural scientists and philosophers were not merely scientists, but also participated in further societal spheres. Therefore, they became influenced by orthodox Islam, and after generations of scholars had grown up in an Islamic orthodox environment they at least accepted the orthodox doctrines. At least the scholars of the 13th and
later centuries, despite their professions, accepted orthodox positions on the most central issues. As an example, Huff cites the famous Arab astronomer Ibn al-Shatir of the 14th century. Ibn al-Shatir’s profession was not only astronomy; he was also the timekeeper of a mosque in Damascus. Hence, on one hand, he was a strictly religious official and, on the other, he was a scientist. Furthermore, Averroes (Ibn Rushd, d. 1198), although a scientist (natural philosopher), worked as a *qadi*, that is, a judge specialized in religious law (Huff, 2003, p. 64f).

Sabra (1994), however, rejects the marginality thesis, arguing that natural sciences did not play a marginal but a grave role in medieval Islamic society. Therefore, the term “naturalization” is central, which “refers to the domesticating of the foreign and ancient sciences, thereby incorporating them into an indigenous cultural and philosophical system” (Huff, 2003, p. 65f.). It depicts the full acceptance of the foreign sciences in every dimension of society. When naturalized, the foreign sciences are a part of Arab institutions and Arab culture. According to Sabra (1994), this is what happened to sciences and natural philosophy in the Arab region. Hence, in the course of naturalization natural sciences should have become institutionalized and thereby gained autonomy and independence. However, although natural sciences and philosophy did become institutionalized, they never obtained an autonomous space. Instead they were completely interfused with Islamic philosophy and theology and, therefore, lost their independence. Hence, the critical doctrines that did not fit with orthodox Islam could be deleted over time. From Sabra’s point of view, the penetration and mixture of natural sciences and orthodox Islam was the crux. The inconsistency of both views forced one to make large compromises. Therefore, natural philosophy more and more adapted to the orthodox Islamic doctrine and was lost on the way.

Western Europe, however, experienced a renaissance in the 12th and 13th centuries that was grounded in the legal revolution. This intellectual transition can be traced back to the influence of Plato’s *Timaeus*. Of course, Plato was also known by the Arabs; however, his effect differed widely between both civilizations. Decisively, the European Platonism of the 12th century led to the idea of the atomic world and to the intention of examining everything to find a cause and effect (Huff, 2003, p. 100). The new Aristotelian translations that arrived in Western Europe in the 12th and 13th centuries caused severe alterations to the Platonist view, but it had laid the groundwork for the Western European idea of the physical nature of the world.\(^70\)

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\(^70\) Of course, Western Europe’s rationalism also faced severe counterattacks by the conservative forces of the church and society, especially in the second half of the 13th century. However, European naturalism succeeded because the Christian church did not condemn Greek philosophy in general. Instead, it tried to connect religious and rationalist ideas where it seemed to fit and, therefore, adopted naturalistic views. Furthermore, European pluralism and
In Western Europe, science in the Middle Ages was split up into medicine, exact sciences (mathematics, astronomy, statistics, optics), and natural philosophy. What Aristotle called physics is approximately similar to what is understood by natural philosophy or natural science. Hence, natural philosophy dealt with “the study of the first causes of nature, change and motion in general, the motion of celestial bodies, the motions of transformation of the elements, generation and corruption, the phenomena in the upper region of the atmosphere right below the lunar sphere, and the study of animals and plants” (Grant, 1996, p. 136). However, during medieval times and even later, these topics were not examined from a purely naturalistic point of view, but rather from a theological and philosophical one.

The transitions between the sciences were smooth; mathematics, for example, was sometimes included in natural philosophy. Philosophers used mathematical tools and both sciences examined the same bodies in different aspects. However, natural philosophy or natural science was not similar to modern science or to what is currently understood as natural science. Medieval science included mathematical, physical, and chemical tools as well as philosophy and theology. The emergence of modern sciences in the 16th and 17th centuries added a mechanical component and, hence, by 1850, natural philosophy was divided into “mechanics, hydrostatics, hydrodynamics, hydraulics, pneumatics, acoustics, optics, astronomy, electricity, galvanism, magnetism, and chromatics” (Grant, 1996, p. 193, referring to Guralnik, 1975, p. 61). Even the already mechanical sciences of the 18th century must be understood as “dark thread entwined in a tapestry of many colors, a whole cloth made up of religious and secular values crisscrossed with scientific learning. […] We separate science from religion, science from technology, theories from practice. They did not” (Jacob, 1997, p. 104). Hence, it is important to differentiate between medieval natural philosophy and medieval natural sciences; modern sciences; and contemporary natural sciences.

In any case, the rationalist and mechanical worldview established in Western Europe from the 16th century onwards caused the emergence of modern sciences, which enabled the required technological progress and the particular state of mind to create the necessary kind of knowledge. Huff (2003) explains that “the modern scientific worldview is a unique metaphysical structure. This means the establishment of the university as a corporate body made a general rejection impossible (Lipsey, Carlaw & Bekar 2005, p. 234). However, it should not be concealed that the success of naturalism in Western Europe and, therefore, the implementation of a mechanistic worldview were also down to luck. Several historical accidents, most of them too negligible to attract attention, might have played a significant role. Nevertheless, the acceptance of naturalism and especially of modern sciences varied between countries in Europe. Southern Europe, for example, fell far behind Northern Europe regarding progress in modern sciences (Lipsey, Carlaw & Bekar 2005, p. 237).
that the modern scientific worldview rests on certain assumptions about the regularity and lawfulness of the natural world and the presumption that man is capable of grasping that underlying structure” (p. 67). Hence, it was the atomic, rationalist, and later mechanical worldview that permitted Western Europe’s unique development path, which resulted in the Industrial Revolution and sustained economic growth. Orthodox Islamic theologians rejected the regularities and the laws of nature as well as the assumption that man is able to understand the world and its sense inherently. Hence, the worldview necessary for the development of modern sciences and the one predominant in medieval Islam could not be combined. Differences in the fundamental issues were too large.

Of course, kalam, natural philosophy, and medieval sciences per se did not disappear straight away in the Arab world. The attitude regarding rationalism and Greek philosophy was not universal in the whole Empire. Since Islam has no central authority and, therefore, has no organized structure like the Christian church, it was not possible to generally dictate certain orthodox doctrines. Hence, discussions concerning naturalism and philosophy continued. Nevertheless, by the end of the 14th century orthodox Islam at last established itself as the only doctrine. Although rational ideas kept on circulating within particular groups, a general denial of natural philosophy had at least been implemented.

Both the diffusion of rationalism since the eighth century and the spread of Islamic occasionalism since the 11th century were supported by the fact that Islam was a religion of the cities. Islam emerged in a vital and popular commercial town, Mecca, and further developed in another city, Medina. Its different schools and forms always emerged in cities, such as Basra, Kufa, Damascus, Baghdad, Buchara, and Samarkand (Huff, 2003, p. 18). The nomads in the deserts converted to Islam, mainly for economic reasons, but kept their own customs and traditions. However, the vital trade routes and the scientific exchange between the intellectual Arab centers made possible the fast diffusion of new ideas and doctrines. Hence, Greek philosophical thought and conservative Islamic doctrines were diffused across among and within the cities.

5.4 Law

The unique development and application of Islamic law demonstrates the significance of the system of law for society in general. The Islamic law, the sharia, is directly grounded in God’s word. It is based on the Quran and the sunna (the traditions of the Prophet). Thus, it is a religious law that is given to mankind directly from God. Most importantly, it was given to mankind in an already complete, perfect, and unchangeable state (Huff, 2003, p. 91). Trying to add, adjust, or change the law was blasphemous. Therefore, the continual development and
adjustment of law that occurred in Western Europe was inconceivable in the Arab world.

The Quran was written down first by Caliph ‘Uthmān (644–656), who compiled a complete collection of the records of the revelation (Halm, 2006, p. 13f.). However, a second source of Islamic law, which Halm (2006, p. 41) describes as being even more important than the Quran for a Muslim’s everyday life, is the hadīth – that is, Muhammad’s direct quotations and records. Using the hadīth, Muslims try to get to know and record the customs and traditions of the Prophet and his associates, that is, the sunna. The Quran and hadīth build the principles of the sharia, which is Arabic for path or street. The sharia comprises all areas of life and is thought to help realize the unity of belief and an individual’s actions and, hence, attain salvation (Fischer, 1992, p. 26). This already demonstrates the crucial difference compared with Western law. The sharia is not a Western-style collection of laws. Instead, it is a guide that incorporates all human affairs in everyday life and, by obeying this guidance, a Muslim is situated on the right path to salvation. Since the Quran and the hadīth regulate an individual’s everyday life in detail, and describe how a Muslim should conduct their public and private affairs, the whole Arab region is characterized by a unique lifestyle, even though Arabic customs and traditions vary by region (Fischer, 1992, p. 27).

Islamic law is based on four sources: the Quran, the sunna (and hence, the hadīth), analogical reasoning (qiyas), and the consensus of the Islamic community (ijma’) (Huff, 2003, p. 92; Halm, 2006, p. 45). Since the revelation was given once and for all, and since it was already complete, no adjustments or additions were allowed. However, the Quran and the sunna do not contain a comprehensive legal code. On the contrary, they contain “a collection of piecemeal rulings on particular issues scattered over a wide variety of different topics; far from representing a substantial corpus juris, […] [the legal material] hardly comprises the bare skeleton of a legal system” (Huff, 2003, p. 92). Therefore, Islamic jurists continually had to deal with new situations that were not appropriately written down in the Quran or the hadīth. Thus, an intellectual struggle (ijtihad) was indispensable to understand the sharia and deal with the problems that confronted the judges (qadis) and jurists. Since the Quran and the hadīth were complete and unchangeable, an intellectual struggle was only possible in the form of conclusion by analogy. Hence, it was examined whether the case in question was in accordance with a situation described in the Quran or the hadīth. If this was not the case, the situation with the nearest similarity had to be con-

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71 The method of consensus (ijma’) might not seem to fit into the theory since agreeing on something incorporates different opinions that exist before the consensus is found. However, personal reasoning and opinion was ruled out in Islamic legal thought. The argumentation concerning this seeming conflict is that God would not allow the whole Islamic community (umma) to make a mistake. Hence, a scholarly consensus on Islamic legal issues cannot be wrong, since God would avoid an error made by the umma.
sulted. Therefore, Islamic legal theory was based on strict analogy (qiyas) and the avoidance of personal opinion and personal discretion. The theory of Muhammad ibn Idrīs al-Shafi‘i (767–820), who is known as the founder of Islamic legal theory, reduced ijtihad to qiyas and thereby reason had to be completely subordinated to divine law (Huff, 2003, p. 92f.). The fact that no adjustments, modifications, and additions were possible led to the static character of Islamic law. Although Roman law was known to the medieval Muslims, they never considered it an additional source of legal principles, since God’s revelation was complete already. Furthermore, the ruler of the Muslim community was the law enforcer. Since human life in general was not differentiated in secular and sacred spheres, the ruler was the divine and the earthly head of state. According to Huff (2003, p. 94), this explains why “legal personalities and institutions such as corporations do not exist, why the idea of personal liability and the concept of negligence are unknown to Islamic law, why the rules of evidence are hardly developed at all, and why Islamic penal law, as well as Islamic codes of public administration, are completely inadequate for a modern state”. This is also why modernizing Arab states in the 20th century had to adopt Western legal codes and retained the principles of the sharia merely regarding family affairs and inheritance law.

The sharia is based on the Quran and the sunna since these sources incorporate the Prophet’s volitions and actions. However, it is not a finished code of law that is written out and available in book form. On the contrary, the construction and handling of the sharia depend on regional legal customs and on the results achieved through consensus and analogy in the particular region or in the particular case. Furthermore, Islamic law is not uniform, but differentiated into four major schools: the Shafi‘i, the Hanafi, the Hanbali, and the Maliki (Halm, 2006, p. 43ff.; Huff, 2003, p. 96). Additionally, the differentiation between Sunnites and Shiites is important since Shiites exhibit their own sunna, which results in different constructions of the sharia (Halm, 2006, p. 75).

However, this is not meant to say that the sharia is a uniform code of law applied in the same way in the whole of the Islamic world. On the contrary, Islamic law can vary greatly depending on the particular region and school. The crucial difference to Western Europe is the totally different character of law, which pervades all Islamic schools of law and all regional customs. First, Islamic law is not just a legal code, but a guide that leads to salvation. Separation in sacred and secular does not exist. Second, Islamic law was given to mankind in an already complete, perfect, and unchangeable state. Therefore, no legal principles can be changed or added.

Together with the development of modern sciences, the modifications made in the system of law in the 12th and 13th centuries were probably the most important factor necessary to initiate the unique development that took place in Western Europe. Compared with Islamic law, the development paths varied
greatly right from the start. Western European law is composed of several sources. Legal principles taken from the Old and the New Testament, customary law, Hellenistic sources, and Roman law were known, discussed, and applied or combined. Furthermore, Germanic tribes had already disposed of a kind of jurisprudence by codifying their customs, which left a mark on the respective Western regions of the Roman Empire (Lipse, Carlaw & Bekar, 2005, p. 227). Hence, from its origins Christianity had to respect a secular law; it emerged within the legal code of the Roman Empire and adapted to it. The conflict between the sacred and the secular can be traced back to Christ’s lifetime and since then has shaped the development of the ecclesiastical and the terrestrial sphere. The main difference with the Islamic world is that there has been a conflict in Western Europe.

However, the major changes were introduced during the legal revolution of the 12th and 13th centuries. Within the papal revolution (ca. 1072–1122) the Christian church cut itself off from worldly powers, especially regarding the appointment of the clergy. Prior to that, terrestrial rulers labeled themselves as the sources of law and the custodians of the religious realm (Huff, 2003, p. 120). The re-created canon law constrained the secular authorities and established a separate and autonomous system of law, which amounted to a radical and revolutionary transformation, depicting the church as the first corporate body. Besides the principles of church law and customary law, canon law was deeply rooted in Roman principles; therefore, the church was also the bearer of Roman law. With the introduction of canon law, the church separated from the secular rulers and began to govern its own affairs. It established its own jurisdiction and the first separation between the degrees of jurisdiction was made.

However, the pure separation between the ecclesiastical and the terrestrial sphere was not the only innovation of the Western European legal revolution. The justification of the separation was based on reason and logic. It tried to establish a harmony among divine, secular, and natural law, which could be deduced from logic. The Benedictine monk Gratian and others worked on the establishment of a legal hierarchy, which ended up in the subordination of secular and ecclesiastical law, and the superiority of natural law. A standard was established, by which ecclesiastical and terrestrial law, and thereby worldly and religious authorities, could be judged regarding their fittingness of natural law (Huff, 2003, p. 126). Hence, the principle of reason was superior to worldly and religious authority, and even to the Scripture. This amounted to an intellectual revolution not possible in the Islamic world. It became officially recognized that man had the intellectual capabilities to discover the world, to add new principles, and, hence, that man possessed reason and conscience.

The most important innovation of the legal revolution was the establishment of the corporation, and, therefore, of different degrees of jurisdiction. The implementation of the concept of the corporation could be traced back to the appli-
cation of reason and logic to the concept of law. However, canon law broke the first ground for the idea of the corporation. Economic, educational, professional, and communal corporations followed. A corporation, however, required a legitimate representation. Hence, the idea of the corporation not only led to the establishment of the principle of different degrees of jurisdiction, but also to the system of elected representatives; usually one person who was elected by majority vote and represented the corporate body in court or opposite the terrestrial rulers. According to Huff (2003, p. 135), the idea of group representation was the beginning of the constitutional government. Cities and municipalities adopted the idea of the corporation, implemented their own jurisdictions, and partly became represented in parliaments by elected officials. This was the case, for example, in England in the 13th century.

The Western European legal revolution of the 12th and 13th century and the emergence of the concept of the corporate body created new social actors, influenced the distribution of power, implemented reason and logic into the legal system, established different degrees of jurisdiction, and, at least, innovated the institutional system and the principles of society.

Of course, the new ideas and concepts were not immediately implemented. On the contrary, political revolutions and uprisings as well as oppression and abolition continued for centuries. In many states, the political structures to bring worldly rulers to justice did not exist. The introduction of the concepts of reason and rationality into the body of law, and the embodiment of the corporation and of autonomous jurisdictions, continued and it took several centuries until the principles were installed. Furthermore, developments varied between countries and were influenced by differing historical accidents. Nevertheless, the basic principles of jurisdiction, reason, pluralism, constitutional government, and the rule of law were laid.

These developments could never happen in medieval Islam. The rejection of human reason, the different principles of law, and the unchangeability of Islamic law inhibited a legal revolution. The Islamic legal system remained nearly unchanged until the 19th century, when European influence in the region necessitated new legal forms. European legal codes often had to be adopted as a whole since a mixture or adjustment was not possible. Therefore, in many Arab states only family and inheritance law remained in the hands of the sharia.

5.5 Corporate institutions

The emergence of corporate bodies in Western Europe had three important implications. First, it offered a way to treat a group of individuals as a unit and, therefore, as a single legal entity. Hence, even if the corporation was accused, no
private individual was affected. For example, individuals could not be prosecuted for a debt owed by the corporate body. Furthermore, a corporation did not end with the death of its members. Instead, it lived on, although its members might have changed (Tierney, 1982). Second, the creation of this abstract entity necessitated the establishment of different degrees of jurisdiction. Not only terrestrial and ecclesiastical jurisdiction had to be differentiated, but also the civil code and corporate law. Third, the corporate body created a free and independent space for scholars, merchants, craftsmen, and so on that allowed them a free exchange of ideas and opinions. Within this space, the members did not have to fear oppression or personal accusation.

The concept of the corporate body was not known in the Arab region because of the relationship between the state and religion. In the West, the emergence of corporate bodies can be traced back to its secular tradition and the separation between certain spheres. In the MENA region with its theocratic tradition, these separations were unknown. Individuals rather than corporations were accused and punished. Furthermore, the implementation of different degrees of jurisdiction was not necessary. It was not possible to differentiate between jurisdictions since Islamic law was neither changeable nor interpretable. Therefore, individuals could not syndicate within an independent corporation.

The absence of corporate bodies in the MENA region and their implementation in Western Europe had far-reaching consequences. Of capital importance was the establishment of corporations for Western universities. The possibility of aligning with other scholars as an independent, corporate group that imposed its own rules upon itself and constituted a legal entity increased scientific autonomy. Furthermore, universities were connected and thereby scientific subjects that were forbidden in one place could be further examined elsewhere. Networks and the legal statuses of universities made oppression much more difficult. In the Arab region, a university was just a sum of individuals. No general curriculums or standards existed. The subjects taught had to be in accordance with the founders’ wishes and with Islamic doctrines. Therefore, the oppression of unwanted subjects and scientific efforts was easily accomplished.

However, the absence of corporate bodies did not only affect the academic environment. Specific features of Islamic contract law, the Islamic inheritance system, and the absence of corporate law inhibited the establishment of double-entry bookkeeping and other organizational innovations in the Arab region. Firms were usually small, since partnerships to pool labor and money involved only two partners customarily (Kuran, 2003; Kuran, 2004a,b). Around 1000, Arab and Western European contract law was almost similar but the latter further developed and was modernized continually. Arab contract law, on the contrary, stagnated because of the inheritance system. Islamic hereditary law inhibited the accumulation of capital over several generations. Accordingly, parents were not able to favor one child or a relative and bequest their wealth en bloc.
Instead, two-thirds had to be left to the children and other relatives, and females received half the share of males (Kuran, 2004a,b). Hence, the owner of an asset was not allowed to freely decide their heir, and the estate was usually allocated between the several heirs since many wives and all children had to be considered. Therefore, the allocated parts of the capital stock were relatively small and firms were closed after the death of the owner. That is to say, large Western-style enterprises that persisted for several generations could not emerge in the Arab region. Around 1000, in the MENA region and in Western Europe, a commercial partnership ended with the death of one of the partners if he died before the official end of the contract. However, according to Islamic heritage law, the capital of the partnership was bequeathed to the remaining partners and the heirs of the deceased. Therefore, the contract partners usually received a relatively small portion of the capital. The inheritance system kept the quantity of commercial partners low. Fewer business partners and smaller firm sizes made the organizational innovations that were characteristic in Western Europe redundant (Kuran, 2003). In Western Europe, from the end of the medieval period onwards, the size of enterprises and number of business partners and employees required new forms of production, organization, communication, and funding. Banks and stock markets emerged, contract and corporate law were adapted, and new accounting techniques and management practices were developed. These developments did not take place in the MENA region since no need existed. The small firm sizes, their short lifespan, the restricted and short commercial partnerships, and the absence of corporate law made double-entry bookkeeping and other Western-style commercial innovations unnecessary. Credit, for example, was granted by private individuals and not by banks. Hence, while the West further developed its banking system, no similar development was observable in the MENA region. The same applies for stock markets. The mentioned contractual peculiarities, small firm sizes, and lending between private individuals inhibited the development of stock markets since they were not needed within this system (Grant, 1996; Huff, 2003; Lipsey, Carlaw & Bekar, 2005; Kuran, 2003; Kuran, 2004a,b; Kuran, 2008).

5.6 Education

The medieval education systems of the MENA region and Western Europe differed strongly. A decisive factor in Arab education was the establishment of the madrasa. The madrasa developed as the most important institution of higher learning in the Arab region. However, since the madrasas were founded as charitable trusts, that is to say as waqfs, they were subject to the law of waqf. Therefore, madrasas were only allowed to teach and work within the realm of
Islamic teachings and statements. Natural philosophy, natural sciences, and even theology were not the main subjects, and further lost importance during the emergence of orthodox Islam since they were not thought to be in accordance with Islam. The madrasas were schools of law (fiqh). Hence, the subjects dealt with Islam per se. Despite the great Arab efforts in natural philosophy and mathematical sciences, the education on these subjects reduced with the emergence of the madrasas. At the same time, the madrasas forced the distribution of the doctrines of Islamic occasionalism onto society.

Furthermore, the Middle Eastern educational system was based on personal relationships between the master and his student. Prominent scientists and philosophers lived in different places, not connected with each other. Eventually, they did not teach their students at university, but at home. Students interested in a particular subject had to seek out their favorite scholar and were taught at his home. Because of a missing subordinate organization, curriculums for certain subjects were not available. Hence, every teacher was responsible for his subjects and set his priorities accordingly. Degrees, however, were not given to students after passing comparable examinations. Instead, the teachers had to decide when a student had finished his studies successfully. “When in the eyes of the professor students had mastered the subjects taught in the madrasa – […] – they were given an ijaza, an authorization to teach these matters to others […] It should be stressed that this sort of education was highly personalistic; […] neither the state, the sultan, nor the caliph had any influence over the recognition of educational competence” (Huff, 2003, p. 78). This also meant that students’ efforts were not comparable since they were not rated on a general level. Students travelled around, accumulating ijazas from different scholars in different places.

The structures of the Middle Eastern educational system can be traced back to the missing corporate bodies. Corporate bodies were not known per se and thereby no corresponding judicial basis existed. This meant that Arab medieval universities were not independent spaces of science and research and were not connected with each other. Knowledge was not systematically discovered and distributed. Every university acted on its own and depended on the goodwill of its particular local ruler. No general organization or network connecting the Arab universities existed. This facilitated the influence and infiltration of conservative ideas. Freedom of education and research could not be generally enforced.

Furthermore, ordinary citizens were seen as unable to understand and discuss philosophical matters. There existed a “sharp division between the knowers and the novices” (Huff, 2003, p. 82). “Such devices run against the grain of the scientific ethos, […] This Averroist view, according to which one must use one form of expression for the masses and another for the cognoscenti, was later condemned by the Christian Church as the doctrine of two truths” (Huff, 2003, p. 83). The personal and subjective character of the Arab educational system and
its missing independence from societal and ideological matters inhibited objectivity and the development of a universal, naturalistic norm.

In Western Europe, the universities that emerged from the beginning of the 13th century in Bologna, Paris, and Oxford benefitted the most from the simultaneous emergence of the concept of the corporate body. These European universities were independent entities governed by their own internal rule systems. This made the universities a powerful force; for example, they were allowed to depart from the cities in which they were located if the universities’ rights were violated (Grant, 2008, p. 36). Furthermore, professors and students attained special rights when they travelled (Grant, 2008, p. 36). Professors taught their students in classes and general curriculums and degrees were established to create comparability between graduates and universities. In Western Europe, universities were the propagators of naturalistic teachings. Although the church occasionally opposed the naturalistic view – especially in Paris, which ended up in the condemnation of 1277 – the autonomy of universities and political pluralism made general oppression impossible.

5.7 The *waqf*

The *waqf* was a social trust that developed because the medieval Arab states were not interested in the provision of social services and public goods. Therefore, education, orphanages, sanitation, mosques, water supply, soup kitchens, and so on were provided through *waqfs*. Nearly all social services and public goods in Arab cities were supplied by thousands of *waqfs*. A *waqf* was established by “turning immovable private property into an endowment to support any social service permissible under Islamic law” (Kuran, 2004a, p. 75). Hence, by providing some kind of social services or public goods, a wealthy individual could turn his assets into a *waqf*. A *waqf* was thought to persist in its original form in perpetuity. That is to say, the founder assigned which social good should be provided by the *waqf* and how the trust was to be run. Afterwards, the trust and its mission could never be changed. Even when the founder died, the *waqf* had to be run according to his wishes and, of course, according to Islamic doctrines. However, the founder of a *waqf* was bestowed with several privileges. He could appoint himself as manager and trustee. Therefore, the founder was allowed to pay himself a considerable salary and employ family members. Furthermore, the founder could circumvent Islamic inheritance law by appointing one child as his successor. Hence, the founder was able to avoid the fragmentation of his capital and favor one child or relative. In addition, a *waqf* could not be taxed and was safe from expropriation. Hence, the foundation of a *waqf* was a
way for landowners to protect their properties from statist despotism (Kuran, 2003; Kuran, 2004a,b; Shatzmiller, 2001).

However, the main problem with the waqf system was that it was unchangeable in perpetuity. Hence, a modernization or an adaption to changing circumstances was not possible. This was less of a problem during medieval times. However, in the 18th and 19th centuries, when economic growth in parts of Western Europe started to take off, the rigidity of the waqf system was a severe issue. Most of the services provided by waqfs were supplied by corporations in Western Europe, for example, universities, municipalities, or churches. However, these institutions were able to adapt vastly and reallocate capital according to the particular requirements. In the MENA region, capital was fixed and could not be reallocated or reinvented when it was necessary to keep pace with modernization and economic growth in the West. Not all waqfs remained fixed and rigid, but to circumvent the severe rules a waqf’s manager had to be prepared to agree on certain backhand solutions. That is to say, he had to bribe the respective person in charge. These methods fostered corruption and other illegal procedures, which still pose a severe problem for the MENA region today (Kuran, 2004a,b). However, in the 19th century Arab municipalities began to take over the waqfs’ missions. Nevertheless, fast adaption was not possible since traditional task sharing had existed for hundreds of years.

Furthermore, the waqf system had an indirect but decisive effect on society in general, since it inhibited the emergence of a civil society. On the one hand, a waqf provided some kind of associational freedom. On the other hand, it hindered the development of self-governed entities such as corporations and municipalities. These kinds of self-contained corporate bodies were responsible for operating economically to avoid coming into conflict with the law and to establish their own rules. A similar kind of self-governance was missing in the MENA region (Kuran, 2004a,b; Kuran, 2008; Shatzmiller, 2001).

5.8 Foreign rule and historical accidents

An important reason why Western Europe stepped into modern science despite conservative religious forces was the multitude of independent nation states and cities. The suppression of natural science might have been possible in some regional parts of a country or even a whole state. But in the neighboring countries other powers were at work and a unique ban was thereby impossible. When something was forbidden in one country it flourished in another. Different heads of state had different opinions on natural sciences. Some supported it, others fought against it. Some acted in a tactical manner because they wanted to support or harm the church or other rulers. Additionally, universities were con-
nected and organized and this made suppression difficult. To suppress the whole corporate body in every country was impossible. So at last science could gain acceptance.

The Arab Empire, however, was not a united state. On the contrary, the power of the caliphate soon deteriorated. By the beginning of the Abbasid caliphate, which existed between 750 and 1258, the political power started to fall into the hands of provincial governors. Since the caliph was obliged to equip the governors with the required military, it became practice to appoint military commanders as provincial governors, who de facto acted independent of the caliph and his court (Lewis, 1970, p. 103).

Furthermore, it became difficult to control the peripheral areas over time. Before the turn of the millennium, independent states emerged in al-Andalus and Morocco, and de facto independent provinces arose in Egypt, Tunisia, Eastern Iran, and Central Asia. At the beginning of the 10th century, a second caliphate was established in Qairawan and, later, a third caliphate in Cordoba, meaning that at least three caliphs challenged for the legitimate succession to the Prophet (Halm, 2006, p. 37f.).

In 932, Baghdad fell under the protectorate of the Buwaihids, a Persian dynasty who degraded the caliphs to mere puppets (Lewis, 1970, p. 102). The Buwaihids were detached by the Seljuqs, a Turkish dynasty who conquered Persia and, later, Syria and Palestine, as well as large parts of Anatolia.

Another source of foreign rule were the Mamluks, originally Turkish slaves from Central Asia who had been used as soldiers by the Baghdad caliphate since the ninth century. Since slaves in Islam relished a certain legal status and could even be released, the freed Mamluks worked their ways up to high military positions and even became provincial governors. They held enough power to decide on the position of the caliph and, in 1250, established the Mamluk Sultanate, which incorporated Egypt, Syria, Palestine, and the holy sites (Halm, 2006, p. 56ff.).

In 1258, the Mongol conquest finally brought an end to the Baghdad caliphate. The Mongol invasion had dramatic consequences for Iraq, especially Baghdad, which did not recover until the 19th century. The irrigation systems, which were indispensable for the country, were destroyed and the civil government broke down. Furthermore, the Mongols established Persia as the centre of their newly conquered empire, degrading Iraq to a peripheral area, which no longer channeled the rich East–West trade. Centuries of decline and stagnation were the consequence (Lewis, 1970, p. 111).

The Middle Eastern region and Egypt suffered from the strategy of appointing provincial governors who transformed the economic structure from a monetary to a feudal economy. Before the emergence of Islam, the Arab economy was based on foreign and transit trade and was characterized by commercial and monetary structures. The introduction of provincial governors and other self-
appointed patrons, who were endowed with a certain quantity of land and collected taxes in their sovereign territory, reversed the original economic structures. Fiscal policies were directed to increase the patron’s or the ruling dynasty’s wealth – the lifestyles at the courts were quite extravagant – and to satisfy the urban population. The centre, on the contrary, lacked organization and bureaucracies were bloated. A feudal economic structure based on subsistence agriculture was established (Lewis, 1970, p. 103ff.).

In Egypt, trade with Europe and the transit trade between Europe and the Far East were of great significance for the Mamluk sultanate’s finances. At the beginning of the 15th century, however, the Mamluk state was hit by several blows, for example, Mongol troops captured Syria, the plague sprawl within the region, and Bedouin raids occurred, which led to a severe economic decline. The Mamluk rulers first decided to increase their revenues from trade by higher tariffs. Monopolies on trade, for example sugar and other commodities, were established so that the state could absorb the complete gains achieved. The strategy resulted in a complete collapse of the economy and a subsequent currency depreciation as well as severe taxation. In 1498, however, Vasco da Gama discovered a new sea route to India that was safer and cheaper than the one through Egypt. Trade, and thereby the government’s revenues, declined and the end of the Mamluk state was heralded (Lewis, 1970, p. 111ff.).

By the end of the 15th century, Arab supremacy had ended. The scientific and intellectual decline was accompanied by the transformation into a society based on agricultural production and feudal structures. Mediterranean trade has become redirected to the Europeans. Arab trade routes were outflanked by new sea routes. For centuries, MENA’s trade structure had been characterized by the import of primary products and the export of manufactured goods (as well as transit trade). However, between 1000 and 1500, this was reversed.

The lack of interest in Europeans on the part of the Arabs yielded a distorted picture of Western European progress. For centuries, the only field in which Arabs recognized Western superiority was the military. Intellectual, scientific, and technological progress as well as the economic development of Western Europe remained unnoticed by the Arabs for a long time. Only when European strength could no longer be ignored at the beginning of the 19th century did the Arabs realize the technological and economic progress made there. However, by that time, the MENA region lagged too far behind to catch up rapidly (Lewis, 1970, p. 119).

Since the objective of the current work is to demonstrate the origins of the divergent developments between the MENA region and Western Europe, the investigation ends here. However, the emergence of the Ottoman Empire and, later, the appearance of European colonial powers, the impact of the two World Wars, the foundations of independent Arab nation states, and, of course, of the
state of Israel depict further historical incidences that have impacted economic development. Nevertheless, the origins for the divergent development paths – which were different right from the start – lay much further back in time.

After the acceptance of Islamic occasionalism and the rejection of naturalism, the Arab region could not pursue a development path similar to that of Western Europe. The metaphysical and societal orientation pointed towards a totally different direction. Furthermore, certain accidents, such as the build-up of state and religion and the theocratic tradition of the Arab state, reinforced this direction. Several authors assert Arab development to its disability to enforce modern sciences (Grant, 1996; Huff, 2003; Jacob, 1997; Kuran, 2004b; Lewis, 2002; Lipsey, Carlaw and Bekar, 2005). However, here it is argued that modern sciences could not emerge in the Arab region since the institutional structure evolved in a different way and, hence, induced different results compared with Western Europe. The Arab understanding of man, society, state, and religion per se was different. Hence, the fundamental institutions – that is, worldview, the idea of man, the value system, morals, norms, attitudes, and so on – differed between regions. All constitutive institutions, for example, the understanding of the state, the political system, the legal system, and, the economic structures, must then differ. Institutional differences can best be seen in the theocratic tradition of the MENA region, its legal system, and in the absence of corporate bodies, since these institutions can be clearly defined and are less liable to subjective matters such as culture and worldview. State, religion, and jurisdiction are enmeshed with each other since a separation in several independent spheres never occurred in MENA. Hence, the religious target to gain salvation is not independent of politics and jurisprudence. The rejection of naturalism and, hence, a further examination of nature, as well as the assumption that the Quran is complete, perfect, and unchangeable, led to an ossification of the institutional structures.

Western Europe, on the contrary, is characterized through its institutional dynamism. This does not mean that Western institutions are easily modified and less fixed in their culture. But the recognition of human reason and rationality and the superiority of reason above both worldly and religious power enabled the emergence of a dynamic institutional structure that is able to adjust and change. Institutional change is a complex process that can require a lot of time depending on the particular institution. But Western institutions were by definition allowed to change and adjust endogenously since an internal modification caused by alterations that can be asserted to human reason and rationality was possible. The incapability of man to understand God and, therefore, nature precluded the possibility of endogenous change of Arab institutions.
Historical accidents, however, also played a key role since random events in both regions had strong impacts. The development in Western Europe did not merely depend on institutional dynamism. For example, the fact that conservative forces were finally not able to oppress the naturalistic worldview from the 12th century onwards must be asserted to the secular tradition and political pluralism, but mere luck also played a role. Furthermore, historical events that might not even be known today or whose impact seemed to be only marginal at the time might have been crucial in reality. The many dependencies and decisive factors will never be known. However, the institutional structures in the MENA region and in Western Europe had always differed because of developments and historical accidents that occurred hundreds or even thousands of years ago. When two regions whose institutional foundations differ and whose institutional structures vary are compared, the levels of economic development will also differ.

This observation might not directly help promote growth in Arab countries, but it deepens the understanding of the differences between the institutional structures in the MENA region and those in the Western industrialized world. Since institutions are persistent, a deeper understanding of the reasons for institutional differences between regions is all the more important for the analysis of economic development.

### 5.9 Prohibition of interest

A popular Islamic peculiarity omitted from this study is the prohibition of interest. However, the interest ban has not been further examined since it is not considered to have played a decisive role in early institutional development. During medieval times, the prohibition of interest was also effective in Christian regions. In any case, the end of the Christian interest ban can be related to events taking place since the 13th century and, therefore, with the emergence of the Italian city states inter alia. The prohibition of interest in the Christian West did not become irrelevant before the 17th century (Schumann, 2007, p. 198f.). Hence, institutional developments played a role in the abolishment of the Christian interest ban, and the stagnation of Islam has probably been decisive for its maintenance in the Arab region. The Islamic prohibition of interest might be a reason for lower investment in the region; nevertheless, it is not considered a decisive determinant of institution building and of the accidental events between the seventh and 15th centuries that sent the region on a specific development path. This path was the beginning of economic backwardness and stagnation. The maintenance of the interest ban can rather be seen as a result of the institu-
tional lock-in and the historical events. Hence, its perpetuation is a result of the development path, as is the region's economic performance in general.

The Islamic prohibition of interest, or rather *riba*, has its roots in the Quran. Therefore, it is difficult to debate and, according to conservative Islamic thinkers, cannot be changed. However, the discussion about which kind of business the interest ban refers to is ongoing. The ban does not forbid all forms of interest; for example, it does not necessarily prohibit interest resulting from an increase in value through investment or from the profits of a business transaction. *Riba* describes interest from a loan or rather the interest that becomes due when “money is made from money” (Tripp, 2006, p. 126). It is assumed that the original ban meant to prohibit the pre-Arabic custom of doubling the borrowed amount in case it was not repaid on time (Schumann, 2005, p. 497; Schumann, 2007, p. 186; Tripp, 2006, p. 127f.). Hence, the interest ban must be regarded in a historical context. It originates in the avoidance of injustice, since in seventh century Arabia most credits corresponded to consumer credits and less to commercial credits. Therefore, the necessity to borrow resulted from natural disasters such as droughts and the resulting crop shortfalls or from the death of the head of the family (Tripp, 2006, p. 128). That is to say, the borrower was in a worse economic situation than the lender and, therefore, to charge interest was considered exploitation. Furthermore, interest from money loans incorporated no effort by the lender and was, therefore, regarded as unjust. A fixed interest rate was also prohibited because it applied an unequal distribution of risk.

The objective was to install justice by avoiding usury; therefore, consumer credits should not be charged interest and commercial credits were not popular during the time of the revelation. Influential conservative thinkers even nowadays consider the interest ban to be valid for all kinds of interest (Tripp, 2006, p. 131). The prohibition of *riba* was the initial point of Islamic banking and also plays an important role in Islamic economics, neither of which, however, form part of this dissertation project.