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KONTURE INSTITUCIONALIZMA U STAROM VIJEKU

Sažetak:
Pregledom literature identificiran je literaturni jaz u smislu izučavanja kontura institucionalizma u starom vijeku. Određeni elementi vlasničkih prava, transakcijskih troškova i ugovora bili su sastavni dio ekonomskog razvoja u antici. Na temelju deskriptivne i teorijske analize četiriju najvažniji zakonika antike, istraživanje je pokazalo da su osnovni koncepti institucionalizma bili najviše prisutni u Hamurabijevu zakoniku. Uzimajući u obzir razinu mogućih kazni za nepoštivanje članaka povezanih s tri osnovna koncepta, Ur-Nammuov i Eshnunnin zakonik smatraju se najumjerenijima, Hamurabijev zakonik umjerenim, a Asirski pravni sustav najrigoroznijim zakonikom antike. U konačnici, analizirani zakonici smatraju se pretečama današnjih institucionalnih okvira budući da njihovi pojedini elementi predstavljaju vjernu presliku današnjih modernih zakonika.

Ključne riječi: *Institucionalizam, vlasnička prava, transakcijski troškovi, ugovori, zakonik.*

JEL klasifikacija: A10, B1, D02, 017

OUTLINES OF INSTITUTIONALISM IN ANCIENT TIMES

Abstract:
The literature review identified a literature gap in terms of studying the contours of institutionalism in antiquity. Certain elements of property rights, transaction costs, and contracts were an integral part of economic development in antiquity. Based on a descriptive and theoretical analysis of the four most important codes, the study showed that the basic concepts of institutionalism were most strongly represented in the Code of Hammurabi. Taking into account the level of possible penalties the codes of Ur-Nammu and Eshnunna are considered the most moderate, the code of Hammurabi the moderate, and the Assyrian legal system the strictest code of antiquity. Ultimately, the codes analysed can be seen as precursors of today's institutional frameworks, as their individual elements are a faithful copy of today's modern codes.

Keywords: *Institutionalism, property rights, transaction costs, contracts, code.*

JEL classification: A10, B1, D02, 017

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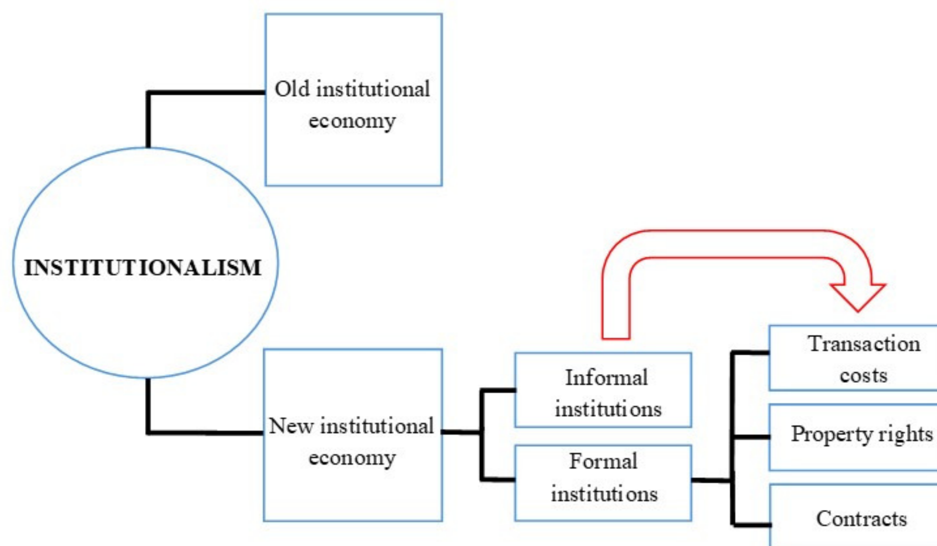
INTRODUCTION

In its simplest form, institutionalism can be defined as a school of economic thought whose analysis is centred on institutions. In this context, institutions can encompass various types of entities operating in the economy, including governmental, financial, educational, religious, civic, and for-profit entities. For this reason, the whole concept of institutionalism can be divided into two basic schools: the old and the new institutional economics (Graph 1). Institutionalism developed in the late 19th and early 20th through a concept known as Old Institutional Economics. Its main characteristic was the lack of a systematic economic theory, which various authors (Ayres, 1921; Hamilton, 1919; Knight, 1921; Veblen, 1907, 1909) attempted to develop. With Veblen as the main proponent of old institutional economics, everything ended in unsuccessful attempts, and with his death, authors gradually began to move away from his basic concept of Darwinism, leading to the loss of institutionalism's identity as an economic school of thought. Over time and after the failure of the proponents of the old institutional economics, another school of institutionalism gradually developed – the new institutional economics.

The new institutional economics, which, unlike the old institutional economics, is based on a systematic theory, was first introduced to economics by Oliver Williamson in his 1975 work, although it began to develop as a direction of economic thought earlier through the contributions of various authors (Coase, 1937, 1960; North & Thomas, 1973). The lack of consensus is one of the main characteristics of the new direction of institutionalism. This lack can be seen both in the definition of the concepts of formal and informal institutions and in the definition of the concept of transaction costs. Although different authors have understood the concept of informal (Chousa, Khan, Melikyan & Tamazian, 2005; Helmke & Levitsky, 2004; Sobel & Coyne, 2011; Tabellini, 2010; Urbano, Aparicio & Audretsch, 2018) and formal institutions (Acemoglu & Johnson, 2005; Fuentelsaz, González, Maícas & Montero, 2015; Hodgson, 2006; Holmes, Miller, Hitt & Salmador, 2011; Jutting, J., 2003; Urbano et al., 2018) differently, institutions are most commonly defined as "*human constraints that structure human interaction, consisting of formal constraints (e.g. rules, laws, constitutions), informal constraints (e.g. norms of behaviour, conventions, self-imposed codes of conduct) and their implementation characteristics*" (North, 1994).

In addition, transaction costs, property rights and contracts represent the "golden triangle" or the three fundamental concepts of the new institutional economics (Ménard & Shirley, 2014). These concepts are primarily associated with formal institutions, but it must be recognised that informal institutions can also influence the above concepts (Graph 1 - red arrow). Different forms of culture, behavioural norms, codes, etc. can influence individual elements of both transaction costs and property rights and contracts.

Graph 1. The complexity of institutionalism as a school of economic thought



Source: Author systematization

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Considering the approaches of various authors (Coase, 1937; Eggertsson, 1990; Matthews, 1986), transaction costs are usually defined as the costs of defining, protecting and enforcing property rights (North, 1990). On the other hand, "*property rights are the rights individuals appropriate over their own labour and the goods and services they possess. Appropriation is a function of legal rules, organizational forms, enforcement, and norms of behaviour - that is, the institutional framework.*" (North, 1990). Ultimately, the last concept of contract is the one about which there is the least doubt in the literature. The reason for this probably lies in the fact that most contracts are drawn up in written form with clearly defined rights and obligations of all persons involved in the contractual relationship. In the book from 1996, Williamson defined contracts as "*an agreement between a buyer and a supplier in which the terms of exchange are defined by a triple: price, asset specificity, and safeguards*".

In view of all this, the question arises: what is the connection between institutionalism, which emerged at the beginning of the 20th century, and antiquity? Certain elements of institutionalism already existed in antiquity and were the subject of debate. A review of databases (WoS and Scopus) has shown that there is a gap in the literature when it comes to analysing the main features of institutionalism based on the most important law codes of antiquity. Accordingly, this paper aims to analyse the three most important codes (the Code of Ul-Nammu, the Code of Eshnunna and the Code of Hammurabi) and one legal system (the Assyrian legal system) of the ancient world from the perspective of the three basic concepts of the new institutional economics. In this way, it will be possible to examine which concepts of the new institutional economy already existed in antiquity, how they were related and what the "institutional frameworks" of that time were in comparison to the institutional frameworks that exist today in a highly globalised world. Considering all the above, three main hypotheses of the paper were defined:

H1. Elements of the new institutional economy were most evident in the Code of Hammurabi.

H2. Considering the level of preservation of all the codes, the Assyrian legal system is considered the most rigorous code of antiquity.

H3. The four analysed codes of antiquity can be considered precursors of today's institutional frameworks.

The paper is structured as follows. The analysis begins with the three most important codices of the ancient world (Section 2). Section 3 analyses the Assyrian legal system. Section 4 offers a discussion, while Section 5 contains a conclusion.

2. THE MOST PROMINENT CODES OF ANCIENT TIMES

All economic activity in antiquity took place in organised communities, the city-states. The very fact that they existed implied the existence of certain "rules of the game" or laws that were supposed to apply equally to the entire population. Even if a review of the literature reveals other codes (e.g. the Draconian Laws, the Laws of King Lipit-Ishtar, the code of the Twelve Tables etc.), the code of Ul-Nammu, the code of Eshnunna and the code of Hammurabi are the best-known "rules of the game" that were valid in antiquity.[1]

2.1. The Ur – Nammu code

The Ul-Nammu code is the first surviving written form of law from antiquity. The code belonged to king Ur-Nammu, who reigned from 2112 to 2095 BC, although there are speculations that the code did not belong to the king but to his son Shulga. The code is not very well preserved, but it is nevertheless possible to analyse about thirty articles concerning various areas of the social and economic life of the city of Ur. When analysing the Ur-Nammu code, seven articles (2, 11, 28, 29, 30, 31, 32) can be highlighted that refer to three fundamental concepts of the new institutional economy: property rights, contracts and transaction costs.[2] However, when analysing the code, not a single article concerning property rights was found. Of the seven articles analysed, six refer to transaction costs and one to contracts.[3]

The second article concerned the cost of protecting property rights, the "price" of which was the death penalty in the event of a certain form of robbery. It should be noted that it is not clear from the preserved part of the code whether all types of robbery (aggravated and petty robbery) are treated

[1] It should be borne in mind that there are different versions of the translations of the above-mentioned codices. Therefore, the following literature is used when analysing the articles of the individual codices:

- The Code of Ul-Nammu - Kramer, S. N. (1952). The Code of Ur-Nammu (circa 2100 BCE). Retrieved from https://mrevans1.weebly.com/uploads/4/3/7/7/43771509/code_of_ur-nammu.pdf (Accessed on June 6th, 2025)
- The code of Eshnunna – Yaron, R. (1988). The laws of Eshnunna, Second Edition, The Magnes Press, The Hebrew University.
- The code of Hammurabi - Harper, R. F. (1904). The Code of Hammurabi, King of Babylon, about 2250 B.C.: Autographed text, transliteration, translation, glossary, index of subjects, lists of proper names, signs, numerals, corrections and erasures, with map, frontispiece and photograph of text. University of Chicago Press.
- Assyrian legal system - Jastrow, M., (1921). An Assyrian law code. Journal of the American Oriental Society, 41, 1–59. https://www.jstor.org/stable/593702

[2] The analysis of all codes will not include articles related to the ownership of women and slaves.

[3] A distinction must be made between the protection of property rights and the costs of protecting property rights. The costs of protecting property rights will be treated as part of the concept of transaction costs and the protection of property rights as part of the concept of property rights.

equally. The eleventh article is the only article in the extant part of the Ul-Nammu code that refers to contractual relationships. Although the article refers to the relationship between a man and a woman, its essential feature is the fact that there was a specific form of marriage contract. Whether this was concluded in written form or whether it was a marriage contract before a god is not precisely defined in the preserved part of the code. The last five articles refer to the concept of transaction costs. Articles 28 and 29 provide for fines for false testimony in court, which is a direct type of cost for the protection of property rights in court proceedings concerning property rights. On the other hand, last three articles set out the costs of protecting property rights in cases of unauthorised cultivation of another's field, flooding of another's field with water and negligent cultivation of another's field that has been leased.

2.2. The code of Eshnunna

In contrast to Ur-nammu's code, the code of Eshnunna remained to the greatest extent preserved. The code contains 59 articles, which is almost twice as many as the surviving part of Ur-nammu's code (Yaron, 1988). The code is the work of the ruler Bilalam, who ruled the city-state of Eshnunna, and was written on two tablets. Analysing the code, 18 articles (5, 6, 10, 12, 13, 17, 18, 19, 20, 21, 36, 37, 38, 39, 53, 54, 56, 57) can be highlighted, which are closely related to the basic concepts of the new institutional economy. The fifth and sixth articles introduce the concept of transaction costs in the case of ship ownership. They provide for compensation to the shipowner for damage caused by the negligent behaviour of the person who has hired the ship or who has trespassed on a ship that does not belong to him. In ancient times, certain animal species (e.g. donkeys) represented a certain type of “property" that could only be owned by wealthier individuals within society. In these circumstances, their protection constituted a kind of protection of property rights, which is clearly defined in Article 10, which emphasises the price of hiring a donkey and its driver. According to the code of Eshnunna, trespassing on someone else’s field or house was considered a punishable offence (transaction cost), the amount of which depended on whether the person was caught during the day or at night. As a rule, the code provided for harsher punishments for cases that occurred at night, probably because this form of theft was considered a more serious sin. Furthermore, a group of articles (17 – 21) is directly related to the concept of property rights, as they define the situation in the case of betrothal gifts from the groom and the creation of various forms of leases between two persons. Article 37 illustrates that the code also provides for certain situations in the area of property rights that have arisen due to unfortunate circumstances for which no one is objectively to blame. Thus, code provided that a person could not be held guilty if his house was demolished or robbed together with another person's house. The second group of articles (36, 38, and 39) covered the transaction costs of home burglaries, the right of first refusal to buy a brother's house from another brother, and the right to buy back the house of person A who had sold his house due to certain problems. The nature of the possible problems was not specified, which means that they were probably various financial or family problems. Following Article 10, Article 53 dealt with property rights in cases where an ox, which in ancient times represented a certain type of 'good', killed another ox. In such cases, the owners determined the value of the two oxen by mutual agreement. Article 54 was a kind of supplement to Article 53 and provided for compensation in the form of silver if an ox belonging to a certain person killed another person. The equivalent value of silver was also determined in cases of death by dog bite. Ultimately, Article 57 refers to the concept of property rights. In cases where it is determined that a certain wall is dilapidated, that is, there is a danger of its collapse, the owner is obliged to strengthen or remove the wall. If the owner does not do this, the wall collapses and causes the death of his son in such cases the king makes the decision. It is indicative that no article of the code defines what would happen if the fall of the wall caused the death of another person. In addition, the article shows that the father's complicity in the murder of his son is considered, and this is probably the reason why the king was left the option of reducing the possible punishment, since the death of his son is itself a kind of punishment for the father.

2.3. The code of Hammurabi

The Hammurabi code is one of the most famous and most comprehensive sets of rules of antiquity. It is divided into three parts: the introduction, the law (282 articles), and a kind of conclusion. The code was named after King Hammurabi, the founder of the Babylonian Empire, who reigned between 1792 and 1750 BC. In a large part of the introduction and conclusion, Hammurabi emphasises the wisdom awarded to him by the gods as well as his own praise (e.g., "called me, Hammurabi, the exalted prince", "the pious and suppliant one, who brought abundance to E – gis – sir – gal”, humble, who brought abundance to Gishširgal", "Hammurabi, the perfect king, am I") (Harper, 1904). Of the total of 282 articles, 95 articles were identified that relate directly to the

concept of transaction costs, 19 to property rights, and only 7 to contracts.

The first group of articles relating to transaction costs (articles 6-13) mainly provided for death penalties for the theft of various goods such as temple artefacts, gold, silver, various types of livestock, etc. However, the code left room for certain exceptions in which death sentences were replaced by certain forms of fines. It is interesting to note that the articles also provided for the possibility of (consciously or unconsciously) reselling stolen goods and regulated the relationship between the owner of the goods, the trader and the buyer. A similar operating principle is provided for in Articles 21, 22 and 25, which also provide for the death penalty for theft within a private home. However, the presence of social sensitivity is evident in Article 23, which provides for the support of the robbed person by other villagers if the actual thief is not caught. In addition, a group of articles (27 - 31) referred to the property rights of persons who had taken part in military actions and had spent a certain amount of time in captivity. In principle, code provided that, in the event of captivity, the house and garden of a member of the military would become the property of his son or wife. If a third party took over and the soldier returned from captivity after a certain period, his house and garden would be returned to him.

However, it would be wrong to believe that the articles merely predicted a specific form of reward for the soldiers. In the case of their negligent behaviour, it is clearly defined when they can recover their property and when they lose it. Code also illustrates that there were certain classes within society. Specifically, while Article 35 envisioned a loss of money for a buyer in the case of buying cattle or small livestock owned by a military person, Article 40 envisaged the possibility of a completely normal sale in the case of other private individuals within society. On a similar trail, only in the domain of property rights, there are also articles 36, 38 and 39. They are provided with the inability to sell as well as the transmission of soldiers' property ownership (field, house or garden), which they received by duty, to a woman. Only property that was not officially assigned could be transferred to a woman or be the subject of a sale. If someone nevertheless ignores this and carries out a certain form of purchase and sale of a field, house, or garden, their document (contract) will be destroyed, and the entire property will be returned to the owner. A group of articles (41 – 46) covers all rights and obligations of all parties involved in the case of leasing a field and is directly related to the concept of transaction costs. Article 47 is the second article in the Code of Hammurabi that relates to the concept of contract. It clearly states that the owner of the land must receive his share of the harvest, regardless of whether the previous lessee leaves the cultivation of the field to someone else. In other words, the elements of the contract remain in force even if the lessee has changed. This applies even if the lessee has not achieved a satisfactory harvest, which means that a large part of the risk has been transferred to the lessee.

The Code of Hammurabi contained elements of debt and interest in the context of transaction costs. The code clearly states that debt and interest must be repaid either in money or in the equivalent of grain/sesame. It also provided for the possibility of natural disasters, so that obligations could be postponed to the following year due to a poor or missing harvest. On the other hand, the destruction of someone else's harvest due to negligent behaviour towards the irrigation system was also included in the code. The penalties were mostly financial or the equivalent of goods, which differed greatly from the penalties for various types of theft. Monetary penalties were also provided for various forms of property damage caused by escaped small livestock from the shepherd. Articles 60 - 65 foresee rights and obligations when assigning a field to another person for processing, but unlike articles 41 - 46, in this case the assignment of processing rights was not made in terms of lessor and lessee. This left the possibility of assigning the right to cultivate the field with conditions different from those that were valid in the case of leasing the field. In addition, the code also regarded money as a special category of property. Part of the article illustrated the obligations arising from the loss of money or the failure to use it for its intended purpose. The only difference was that articles 100-102 were related to the transaction costs, and articles 103 -105 to the property rights.

The code governed relations in the event of a debt/claim between two persons. In such situations, depending on the circumstances, certain situations were resolved by payment of the equivalent value of grain, silver, or by death punishment. In ancient times, it was also possible to hand over certain items for safekeeping. Of the group of articles (120 – 121 and 124 – 126), only article 121 mentions the instrument of rent in the case of grain being handed over for safekeeping. For this reason, it can be assumed that a certain type of rent in the case of the transfer of certain things for safekeeping also existed in other articles, although rent as such was not explicitly mentioned in them. This is supported by Articles 122 and 123, according to which the contract is one of the main instruments in the transfer of certain property for safekeeping to another person. Like the code of Ur-Nammu, the code of Hammurabi also recognised the instrument of contract in the case of marital

relations. "If someone takes a wife but does not make a contract with her, that woman is not a wife." (Harper, 1904). It is clear from Article 152 that the marriage contract is not a mere formality. Namely, the code provided for the complete equality of husband and wife in the event of entering a debt contract with another party. In such cases, their responsibility was fully equalized.
Property rights existed in the case of dowry and inheritance. In the event of a husband's desertion, women had the right to take over the entire dowry they had received from their father after marriage. In essence, the code stipulated that the dowry in most cases belonged to the woman, except in cases where the woman arbitrarily left her husband and did not bear children to her second husband. In such cases, the dowry would belong to the children of her first husband. Although the code does not specify in any article what happens to the dowry of a childless woman, it can be assumed that in such a case, the dowry belonged exclusively to her during her lifetime and after her death went to her husband or a close relative. In cases where a husband transferred their house, garden, or field to their wife and issued her with a deed, ownership was automatically transferred to the wife, and no one in society could contest this. The further transfer of property depended solely on the will of the woman, who had the option of passing the property on to her sons, other close relatives, or another person. A similar principle applies to the transfer of certain property from father to son. If a son was granted an inheritance by his father, there was no question of the further division of the inheritance between the sons after the father's death.
The gift to the father-in-law was related to the transaction costs and property rights. In a group of articles (159–164), all relationships between the father-in-law and the betrothed were defined, i.e., possible situations in which the betrothed could demand the return of the gift or the return of a certain equivalent value of the gift in the dowry. It is interesting to note that the code assigns the same value to both the father-in-law's gift and the wife's dowry.
The Code of Hammurabi also provided for transaction costs in veterinary cases. It was clearly stated that any veterinarian should be rewarded financially if he succeeded in curing an ox/ass or fined if he was proven to be guilty of their death. A similar principle of transaction costs was applied in the building sector. The code provided for a system of rewards if the builder had fulfilled his task correctly, as well as a system of penalties if an incorrectly constructed wall caused a certain type of property damage or the death of a certain person. A completely identical principle was applied in shipbuilding and the hiring of labourers for field work, with the exception that in these sectors, the penalties did not include death sentences, but only material penalties.
A group of articles (241 – 249) dealt with various situations concerning the hiring of an ox. The articles provided for various forms of material compensation in the event of an ox's leg being broken, a horn being broken off, or an eye being gouged out, with two articles (244 and 249) falling within the area of property rights and the remaining articles within the area of transaction costs. The last example of the concept of contract in the Code of Hammurabi is found in article 264 (Harper, 1904). This article clearly states that, according to the contract, the shepherd must bear certain consequences if the number of animals decreases at the end of the contract period. Other articles regulate the transaction costs in various situations that may arise and are provided for in the code. Finally, the last group of articles (268 – 272, 275 – 277) defines the material value to be paid in the case of the rental of oxen, asses, boats and carts.

2.4. Assyrian legal system

The Assyrian legal system was created between 1450 and 1250 BC and was considered a kind of version of the Code of Hammurabi in the north (Jastrow, 1921). Some research suggests that its scope is indeed comparable to the Code of Hammurabi. The main difference between the two codes was the nature of punishment, with the Assyrian legal system using much more cruel methods compared to the Code of Hammurabi. Like the code of Ur-Nammu, the Assyrian legal system has not survived to any great extent. Only fragments of most of the codes have survived, from which one can only guess at their actual significance. Nevertheless, it is possible to analyse 54 codes of the first tablet and 18 codes of the second tablet, which are largely preserved. Of the 26 codes identified, 16 relate to property rights, 8 to transaction costs and 2 to contracts.
In ancient times, women were often in a subordinate position, which is particularly evident in the codes of the Assyrian legal system. In the case of theft by a woman, the woman's sin was passed on to her husband, sons, and daughters, i.e., the woman as such lost all her rights within society. However, if the woman committed the theft while her husband was ill or had died, the woman and the person who received the stolen item would be sentenced to death. Exceptionally, the husband could only decide her fate (the husband and the person who received the stolen item) if he was alive and well, i.e., if the theft took place under the above-mentioned circumstances. A similar law applied to slaves. The punishment of cutting off the nose and ear would be carried out in cases where it

was proven that the slave had received the stolen item from the wife. The husband had the right to spare his wife, but in this case, he was forced to spare the slave. In other words, the code provided equivalent penalties for both the thief (the wife) and the persons who had received the stolen goods (slave or third parties). It is interesting to note that the code provides for the possibility of ransoming a woman. In the case of proven theft, where the property was returned to the owner, the husband could ransom his wife, but in this case, the punishment was the cutting off her ear. If he did not opt for the purchase option, the owner of the stolen item could take it for himself, for which the penalty of cutting off the nose was provided. According to article 6, if a man's wife pawns the stolen item, the recipient must take it as stolen property. The difference between the 5 articles analysed (2 – 6) is that articles 2 and 6 fall within the area of property rights and articles 3, 4 and 5 within the area of transaction costs.

It would be wrong to think that women had absolutely no rights in society. A childless woman who had become a widow and to whom her husband has bequeathed a certain type of property remains her property, and no one can dispute it, not even her husband's brothers. However, if the woman had children who returned to their father's house, the property would become the property of her children. If the woman returns to her father's house, her husband has the right to take all the wedding gifts he previously gave her. In the case of marriage, however, all the dowry and gifts she received from her father and father-in-law belong to her children. Ultimately, if a woman returns to her father after the death of her husband, the gift (whether she accepted it or not) that she received at her father-in-law's house cannot be considered property (Jastrow, 1921).

In contrast to other legal codes of the time, the Assyrian legal system contained by far the most articles relating to the concept of contract. Unfortunately, of all the available articles, only two (33 and 35) have preserved in their entirety, and their meaning can be interpreted.[4][5] Modelled on the codes of Ur-Nammu and Hammurabi, the Assyrian legal system also provided for the conclusion of contracts in marital unions. The system allowed widows to remarry without necessarily entering a contract with their spouse, which largely corresponds to today's Christian laws that allow widows to remarry, as the law between spouses is "until death do us part". In addition, the wife had to remain faithful to her husband for a period of five years, regardless of the possible reasons for his departure or disappearance. However, as early as the sixth year, if he did not return, the wife had the right to live with another man, and her original marriage contract was then considered null and void. On the other hand, if the husband returns within five years, the wife is contractually obliged to continue living with him or to return to him if she is living with another man. As far as the children were concerned, they always remained the property of their biological fathers, regardless of whether the woman remained with her first or second husband. The code provided for the protection of property rights, both for divorced women and for women who had become widows in the meantime. Widows kept everything they owned if a man decided to live with them. In the opposite case, a widow's entire property passed to her husband. The situation was slightly different for divorced women. The husband had the right to keep all voluntary gifts to his ex-wife, while the wife had the right to keep her marriage settlement. Unfortunately, it is not clear from the legal code exactly what the settlement entailed. The wife's exclusive right to become a free woman, or an additional form of gifts, money or other material rights.

The position of the king in Assyria was very important and was not only reflected in his power in connection with the reign. Certain types of property belonged to the king by decree, without the possibility of making a settlement or claiming certain rights. If there was undivided property between brothers and one of the brothers met with an accident or fled, the undivided property belonged to the king (Jastrow, 1921). The article clarifies the material loss for the second brother and was probably intended to reduce the number of possible legal disputes and disagreements between family members, as they could lead to mutual harm (in this case between the two brothers).

The sixth article of the second fragment (tablet) concerns the right to dispose of property. Unfortunately, a large part of the article has been destroyed and cannot be fully interpreted. What it does indicate, however, is that there was a certain "legal framework", i.e. documents that citizens had to submit and that were scrutinised by the supervisory authority, the city scribe and the royal clerk before the right to dispose of property was granted. Finally, the group of articles in the second tablet (8 – 10 and 14 – 15) was related to the concept of transaction costs and the group of articles (12 – 13, 17 – 18) was related to the concept of property rights. The Assyrian legal system provided for penalties for people who unlawfully increased a large area or unlawfully

[4] The contracts are mostly mentioned on the badly damaged 4th tablet or 4th fragment.

[5] The contract is also mentioned in Article 38, but the article is not the subject of analysis because it includes the contract's ownership of a wife, or rather, a daughter.

took a small area from their neighbouring landowner. Naturally, large areas of land were considered a “more serious sin” and were therefore punished more severely (e.g., cutting off a finger) than small areas, where the penalties were mainly of a material nature. People who baked bricks or built wells in a foreign field were punished with flogging and service in the royal service. Although they are damaged, articles 12 and 13 of tablet 2 point to two possible situations when it comes to the cultivation of another person's orchard. It is clear from the context that in the first case (Article 12), there was probably some kind of agreement between the person cultivating the orchard and the owner of the orchard. For this reason, the article probably does not foresee any form of punishment if a person cultivating an orchard builds a well for its irrigation, provided there is no protest from the owner. On the other hand, Article 13 presupposes the existence of fault, i.e., the absence of a possible agreement between the cultivator of the orchard and the owner of the orchard, and in the case of proven fault, the entire harvest is presumed to belong to the owner of the orchard.

In ancient times, agriculture was one of the most important economic activities, which meant that property rights in the agricultural sector came to the fore. The legal code regulated relations between neighbouring landowners in the case of the use of shared water reservoirs. Regardless of whether the water was supplied via a canal or rainwater, the owners were obliged to use the common tanks in an agreement corresponding to the size of the field belonging to each owner. In the event of any disputes, the court automatically confiscated each owner's documents, making further irrigation impossible. In other words, by "forcing" the owners to agree and share, they were trying to minimise potential disputes, as both parties would be on the losing end if they occurred. A similar principle as in the case of indivisible property between brothers.

3. Discussion

When analysing and comparing the four codes, it should be noted that the Code of Hammurabi is the most comprehensive (with a total of 121 articles identified and analysed), which illustrates the full acceptance of hypothesis H1. Table 1 shows that a total of 172 articles have been identified in the four codes, of which 44 (25%) relate to property rights, 118 (69%) to transaction costs and 10 (6%) to the concept of contracts. The Code of Ur – Nammu can be considered one of the most moderate codes of antiquity. Many its articles refer to the concept of transaction costs, of which only 2 predicted possible death sentences (Table 2). The code is characterised by the fact that it does not contain a single article referring to the concept of property rights, while the concept of contract is dealt with in only one article. In contrast, the Eshnunna Code contained nine articles each relating to property rights and transaction costs. The Eshnunna Code is characterised by the fact that it does not contain a single article on the concept of contract or an article on transaction costs that provides for the death penalty (Table 2).

Table 1. Summary of the analysed codes

Codes	Number of articles analysed	Articles related to property rights	Articles related to transaction costs	Articles related to contracts
The Ur – Nammu code	7	0	2, 28, 29,30, 31 and 32	11
The code of Eshnunna	18	10, 17, 18, 19, 20, 21, 37, 53 and 57	5, 6, 12, 13, 36, 38, 39, 54 and 56	0
The code of Hammurabi	121	27, 28, 29, 30, 31, 36, 38, 39, 103, 104, 105, 149, 150, 159, 165, 173, 174, 244 and 249	6, 7, 8, 9, 10, 11, 12, 13, 21, 22, 23, 25, 35, 40, 41, 42, 43, 44, 45, 46, 48, 49, 50, 51, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 100, 101, 102, 106, 107, 108, 112, 113, 114, 115, 120, 121, 124, 125, 126, 152, 160, 161, 164, 224, 225, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 240, 241, 242, 243, 245, 246, 247, 248, 253, 254, 255, 256, 259, 260, 263, 265, 266, 267, 268, 269, 270, 271, 272, 275, 276 and 277	37, 47, 52, 122, 123, 128 and 264
Assyrian legal system	26	2(a), 6(a), 24(a), 25(a), 26(a), 27, 28, 31(a), 34(a), 37(a), 3(b), 6(b), 12(b), 13(b), 17(b) and 18(b)	3(a), 4(a), 5(a), 8(b), 9(b), 10(b), 14(b) and 15(b)	33(a) and 35(a)
Total	172	44	118	10

Source: author's systematization

Regarding the level of punishment, the Eshnunna Code follows the moderate Ur-Naumm Code in that it only provides for a medium level of punishment in two cases (Articles 12 and 13) and leaves open the possibility of exclusively material punishment under certain circumstances (low level of punishment).
As the most extensive code of its time, the Code of Hammurabi can be regarded as a moderate code of antiquity. A large proportion of the codes identified that relate to the concept of transaction costs provided for material penalties (low level of punishment). Even of the high penalties identified overall, in two cases (Articles 8 and 9) there was the possibility of avoiding the death penalty and commuting it to a material penalty. The Code is also characterised, compared to others, by the fact that it contains several preserved articles relating to the concept of contract. Moreover, the articles mentioned are not limited to contractual relations between husband and wife but also consider other areas of economic life, which clearly distinguishes them from the extant codes of Ur-Naumm and the Assyrian legal system.
Although it may not appear so at first glance (one high-level punishment and three medium-level punishments), the Assyrian legal system can be regarded as one of the strictest codes of antiquity. A large proportion of the articles contained medium and high-level punishments related to the ownership of women and slaves, which was excluded as a subject of analysis. It is also clear from the context of other partially preserved articles that punishment in the form of cutting off body parts or death was often present (acceptance of H2). On the other hand, there were several articles in the Assyrian legal system that contained the element of a contract, but unfortunately, a large proportion of these have not survived and their context cannot be deciphered.
It is characteristic of all codes that it is not possible to deduce from them to what extent they were implemented. Many authors (Roth, 1997; Van De Mieroop, 2005; Westbrook, 2003) are even of the opinion that the codes represented a kind of customs, traditions, norms (informal institutions) of the time. In view of this, the practice and application of the codes could differ from time to time, from place to place, from king to king and ultimately from society to society, which respected or disregarded certain forms of informal institutions.

Table 2. Level of penalties depending on the transaction costs[6]

Codes	Articles related to transaction costs	Low level of punishment	Medium level of punishment	High level of punishment
The Ur – Nammu code	2, 28, 29,30, 31 and 32	28, 29, 30, 31 and 32	0	2
The code of Eshnunna	5, 6, 12, 13, 36, 38, 39, 54 and 56	5, 6, 12, 13, 36, 38, 39, 54 and 56	12, 13	0
The code of Hammurabi	6, 7, 8, 9, 10, 11, 12, 13, 21, 22, 23, 25, 35, 40, 41, 42, 43, 44, 45, 46, 48, 49, 50, 51, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 100, 101, 102, 106, 107, 108, 112, 113, 114, 115, 120, 121, 124, 125, 126, 152, 160, 161, 164, 224, 225, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 240, 241, 242, 243, 245, 246, 247, 248, 253, 254, 255, 256, 259, 260, 263, 265, 266, 267, 268, 269, 270, 271, 272, 275, 276 and 277	8, 9, 12, 13, 23, 35, 40, 41, 42, 43, 44, 45, 56, 48, 49, 50, 51, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 100, 101, 102, 106, 107, 108, 112, 113, 114, 115, 120, 121, 124, 125, 126, 152, 160, 161, 164, 224, 225, 228, 231, 232, 233, 234, 235, 236, 237, 238, 240, 241, 242, 243, 245, 246, 247, 248, 254, 255, 257, 259, 260, 263, 265, 266, 267, 268, 269, 270, 271, 272, 275, 276 and 277.	253	6, 7, 8, 9, 10, 11, 21, 22, 25, 229 and 230
Assyrian legal system	3(a), 4(a), 5(a), 8(b), 9(b), 10(b), 14(b) and 15(b),	8(b), 9(b), 10(b), 14(b) and 15(b).	4(a), 5(a), 8(b)	3(a),
Total	118	104	6	13

Source: author's systematization

4. CONCLUSION

Although the concept only developed in the late 19th and early 20th centuries, the contours of institutionalism were already present in antiquity. The codes analysed can be seen as forerunners of today's institutional frameworks that are valid in the modern world. Particularly fascinating is the fact that some codes of antiquity represent a kind of copy of today's modern codes. Some articles relating to the cultivation of land, irrigation, the cultivation of foreign land, etc. are a faithful copy of today's codes of modern countries around the world. Furthermore, considering the severity of the punishments in ancient times, it is possible that their application was more efficient in ancient times than in some less developed countries today (acceptance of H3).

Even the most primitive forms of civilisation always had certain “rules of the game” that were valid in their environment. The “rules of the game” of antiquity cannot be associated with formal codes, judges or repressive apparatuses, but with certain forms of tradition, norms, customs and rules of behaviour. In other words, the development of institutionalism from the primitive forms of civilisation to the establishment of a new institutional economy must be viewed primarily through the prism of informal institutions. This does not mean that formal institutions are completely disregarded, but quite the opposite. As a rule, as civilisation progresses, the impact of informal institutions becomes weaker and the impact of formal institutions stronger. However, this does not mean that one form of institution disappears and the other survives. The study of today's economic phenomena is not possible without a good knowledge of formal and informal institutions in the economy. Ultimately, the laws of antiquity are the best proof of this.

Future research aims to analyse the question of institutionalism in the Middle Ages. In this way, it will be possible to determine evolution in the concepts of formal and informal institutions between antiquity and the Middle Ages.

[6] A low penalty meant a material punishment, a medium penalty meant cutting off body parts and a high penalty meant the death penalty.

REFERENCES

1. Acemoglu, D., & Johnson, S. (2005). Unbundling Institutions. *Journal of Political Economy*, *113*(5), 949–995. https://doi.org/10.1086/432166
2. Ayres, C. E. (1921). Instinct and Capacity--I: The Instinct of Belief-in-Instincts. *The Journal of Philosophy*, *18*(21), 561. https://doi.org/10.2307/2939519
3. Chousa, J. P., Khan, H. A., Melikyan, D., & Tamazian, A. (2005). Assessing institutional efficiency, growth and integration. *Emerging Markets Review*, *6*(1), 69–84. https://doi.org/10.1016/j.ememar.2004.09.004
4. Coase, R. H. (1937). The Nature of the Firm. *Economica*, *4*(16), 386–405. https://doi.org/10.1111/j.1468-0335.1937.tb00002.x
5. Coase, R. H. (1960). The Problem of Social Cost. *The Journal of Law and Economics*, *56*(4), 837–877. https://doi.org/10.1086/674872
6. Eggertsson, T. (1990). *Economic Behaviour and Institutions*. Cambridge University Press.
7. Fuentelsaz, L., González, C., Maícas, J. P., & Montero, J. (2015). How different formal institutions affect opportunity and necessity entrepreneurship. *BRQ Business Research Quarterly*, *18*(4), 246–258. https://doi.org/10.1016/j.brq.2015.02.001
8. Hamilton, W. H. (1919). The Institutional Approach to Economic Theory. *The American Economic Review*, *9*(1,), 309–318.
9. Harper, R. F. (1904). *The Code of Hammurabi, King of Babylon, about 2250 B.C.:Autographed Text, Transliteration, Translation, Glossary, Index of Subjects, Lists of Proper Names, Signs, Numerals, Corrections, and Erasures, with Map, Frontispiece and Photograph of Text*. The University of Chicago Press.
10. Helmke, G., & Levitsky, S. (2004). Informal Institutions and Comparative Politics: A Research Agenda. *Perspectives on Politics*, *2*(04), 725–740. https://doi.org/10.1017/S1537592704040472
11. Hodgson, G. M. (2006). What Are Institutions? *Journal of Economic Issues*, *40*(1), 1–25. https://doi.org/10.1080/00213624.2006.11506879
12. Holmes, R. M., Miller, T., Hitt, M. A., & Salmador, M. P. (2011). The Interrelationships Among Informal Institutions, Formal Institutions, and Inward Foreign Direct Investment. *Journal of Management*, *39*(2), 531–566.
13. Jastrow, M. (1921). An Assyrian Law Code. *Journal of the American Oriental Society*, *41*, 1. https://doi.org/10.2307/593702
14. Jutting, J. (2003). 'Institutions and Development: A Critical Review. *Organisation for Economic Co-Operation and Development*, *210*.
15. Knight, F. H. (1921). *Risk, uncertainty and profit*. Houghton Mifflin.
16. Kramer, S. N. (1952). The Code of Ur-Nammu (circa 2100 BCE). Retrieved from https://mrevans1.weebly.com/uploads/4/3/7/7/43771509/code_of_ur-nammu.pdf (Accessed on June 6th, 2025)
17. Matthews, R. C. O. (1986). The Economics of Institutions and the Sources of Growth. *The Economic Journal*, *96*(384), 903. https://doi.org/10.2307/2233164
18. Ménard, C., & Shirley, M. M. (2014). The Contribution of Douglass North to New Institutional Economics. In S. Galiani & I. Sened (Eds.), *Institutions, Property Rights, and Economic Growth* (1st ed., pp. 11–29). Cambridge University Press. https://doi.org/10.1017/CBO9781107300361.003
19. North, D. C. (1990). *Institutions, institutional change, and economic performance*. Cambridge University Press.
20. North, D. C. (1994). Economic Performance Through Time. *The American Economic Review*, *84*(3), 359–368.
21. North, D. C., & Thomas, R. P. (1973). *The Rise of the Western World: A New Economic History*. U.K.: Cambridge University Press.
22. Roth, M. T. (1997). *Law Collections from Mesopotamia and Asia Minor*. Scholars Press.
23. Sobel, R. S., & Coyne, C. J. (2011).

Cointegrating Institutions: The Time-Series Properties of Country Institutional Measures. *The Journal of Law and Economics*, *54*(1), 111–134. https://doi.org/10.1086/652304

24. Tabellini, G. (2010). Culture and Institutions: Economic Development in the Regions of Europe. *Journal of the European Economic Association*, *8*(4), 677–716. https://doi.org/10.1111/j.1542-4774.2010.tb00537.x

25. Urbano, D., Aparicio, S., & Audretsch, D. (2018). Twenty-five years of research on institutions, entrepreneurship, and economic growth: What has been learned? *Small Business Economics*, *53*(1), 21–49. https://doi.org/10.1007/s11187-018-0038-0

26. Van De Mieroop, M. (2005). *King Hammurabi of Babylon: A Biography* (1st ed.). Wiley. https://doi.org/10.1002/9780470696095

27. Veblen, T. (1907). The Socialist Economics of Karl Marx and His Followers. *The Quarterly Journal of Economics*, *21*(2), 299. https://doi.org/10.2307/1883435

28. Veblen, T. (1909). The Limitations of Marginal Utility. *Journal of Political Economy*, *17*(9), 620–636. https://doi.org/10.1086/251614

29. Westbrook, R. (2003). *A history of ancient near eastern law* (1–1). Koninklijke Brill NV, Leiden, The Netherlands.

30. Williamson, O. E. (1975). *Markets and Hierarchies. Analysis and Antitrust Implications.* New York: Free Press.

31. Williamson, O. E. (1996). *The Mechanisms of Governance*. Oxford University Press.

32. Yaron, R. (1988). *The laws of Eshnunna* (Second Edition). The Magnes Press, The Hebrew University.