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The Universal Nature of the Condemnation of Interest and Monetary Metaphysics

Ezzedine Ghlamallah¹ & Ahmed Danyal Arif²

Abstract: This article explores the universal condemnation of interest and delves into the metaphysical aspects of monetary systems. It critically examines the historical and philosophical viewpoints against interest from various cultures and religions, including ancient Greek and Roman societies, Judaism, Christianity, and Islam. The paper highlights the ethical, economic, and metaphysical reasons behind the condemnation of interest, associating it with injustices like exploitation and social inequality. Additionally, it discusses the concept of free money advocated by Silvio Gesell and its similarities to the Islamic practice of zakāt, emphasizing the negative economic impacts of hoarding wealth and advocating for a monetary system that discourages such practices. The metaphysical analysis draws on Aristotelian principles, suggesting that just like physical entities, monetary systems should adhere to natural laws of entropy and equilibrium, thus challenging the current financial practices that encourage perpetual growth and destabilize economic systems. The paper concludes by proposing a redefinition of money that aligns with these metaphysical principles, advocating for the abolition of interest to achieve a more equitable and stable economic system.

Keywords: Islamic economics, monetary metaphysics, debt, currency, *ribā*, *zakāt*.

JEL classification: E43, E52, N30, P44, Z12.

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Introduction

Money is a polymorphous and ambivalent object. On the one hand, it has the characteristics of an "*exclusive*" and "*private*" good (the quantity of money I possess belongs exclusively to me), and on the other, the characteristics of a "*rival*" good (the quantity I have deprives others of its use if I don't spend it). This makes it a facilitator of exchanges and therefore a factor in connecting people. But it can quickly become a source of inequality when it is desired for its own sake and diverted from its original purpose. This desire to accumulate money as an end in itself is the hallmark of chrematistics, condemned by Aristotle, where money leads to more money without even having to go through a real production process.

With the *zakāt*, Islam stipulates that for the system to remain beneficial, the solution is to subject man to a restoring force as effective as the force of gravity.³ This restoring force is based on the logic of balance and justice and inscribed in the very nature of money. Rather than considering capital as a privilege that must be remunerated by interest, this restoring force leads us to consider surplus wealth as a responsibility in the service of the common good to ensure that the rights of the poorest sections of society are respected. The underlying philosophy of *zakāt* is that hoarding and storing wealth has a negative impact on the economy, as it slows down the dynamics of money flows. The only way to encourage circulation that is as broad as possible is to place money at the level of a perishable commodity, as its possession does not necessarily create a "*holding cost*". More precisely, the natural economic order of Islam subjects the idle surplus of wealth to natural erosion, reminding man of his fragile and ephemeral nature. Similar to foodstuffs whose value deteriorates over time, similarly, money melts and loses its value. The mechanism of *zakāt*, which represents a negative rate for monetary wealth that discourages hoarding and encourages investment in the real economy, is reminiscent of the idea of "*free money*" developed by Silvio Gesell ([1948](#)).

This successful self-taught trader observed that his goods sometimes sold quickly and at rather high prices, and that in other circumstances they sold more slowly and at much lower prices. He realised that these fluctuations had little to do with the quality of his goods, but almost exclusively with the '*price*' of money on the money market. According to Gesell, this phenomenon was that money, unlike other goods and services, could be stored at no cost. If someone owned a bag of apples and someone else owned the money to buy them, the former would have to sell them in a relatively short space of time in order not to lose his capital. The holders of money, on the other hand, can wait, because the immobilisation of their money does not necessarily entail "*possession costs*". Gesell concluded that if we could create a monetary system that placed money on an equal footing with all other goods and services, we would have an economy free from the fluctuations of currency speculation. He suggested that money should be allowed to "*rust*" and lose value at fixed intervals.

³ The *zakāt*, the third pillar of Islam, has been defined by Boudjellal & Boudjellal as: '*a religious duty that calls on every Muslim who has reached the niṣāb to purify his wealth and income by periodically paying, in kind or in cash, a set amount that will be allocated to very specific rightful claimants in the Koran. The niṣāb is a threshold which, when reached; makes the holder of wealth liable to pay zakāt. It is equal to 85 grams of pure gold or 595 grams of pure silver. With regard to accumulated wealth (cash in the form of cash or precious metals immobilised for one lunar year [354 days] and more, a zakāt rate of 2.5% per annum is payable*' in "La Zakat et le Waqf: un segment de la finance islamique au service du développement économique et social", *2nd International Scientific Congress on Non-Profit Islamic Financing for the Achievement of Sustainable Development*, Centre for Economic and Human Growth in Algeria, Saad Dahlab University, Blida, Algeria, 2013.

Gesell recommended a depreciation of one thousandth per week, equivalent to 5.2% per year. The depreciation would have been organised in the form of stamping on banknotes to reduce their face value. From a strictly technical point of view, Keynes (1936) considered the principle of melting money to be beyond reproach: "*The idea behind stamped money is sound*". The consumer is therefore encouraged to spend quickly, as the banknote regularly loses value if it is not spent. If they want to keep it, they have to buy and stick additional stamps on the note so that it retains its purchasing power. The author's idea was in fact tantamount to imposing a negative rate of interest on hoarded money following the example of the effects produced by the *zakāt* on capital.

It is therefore surprising to note that the concept of *free money* advocated by Gesell is so close to that of *zakāt* even though they are separated by more than thirteen centuries. The idea of free money is opposed to that of remunerating capital through interest, since for the former the effect of time will be to diminish capital, whereas for the latter the effect of time will be to multiply it.

During the 1930s, supporters of Silvio Gesell's theory attempted to introduce a "*free currency*" in several European countries, including Austria, France, Switzerland and Germany, as well as in the United States. But the most successful experiment has been in the Austrian town of Wörgl. In France in 2024, according to INSEE figures, out of the 313 billion euros in net tax revenue in France's general budget, more than 52 billion euros in interest on the debt will have to be paid to the State's creditors, and according to projections by the Ministry of the Economy, the cost of the debt should become the country's largest item of expenditure by 2027, ahead of education and the army. At a time when public services are suffering from a lack of financial resources, due in particular to the deterioration in public finances and rising interest rates, it is vital to rethink the issue of money.

To this end, the first part of this article analyzes the universal scope of the condemnation of interest by the Greeks and Romans (1.1), Jews (1.2), Christians (1.3) and Muslims (1.4). The second part is devoted to monetary metaphysics, with the aim of explaining why interest is condemned as violating at least two laws of physics: entropy (2.1) and equilibrium (2.2). Then, using examples from classical *fiqh* literature and some contemporary authors, we discuss in a third section the definition of money in monetary metaphysics (3.1) and the cancellation of debt interest (3.2). Finally, we conclude and address the theme of our future research.

1. The universal scope of the condemnation of e interest

The Semitic root of *ribā* literally refers to the meanings of increase, addition, expansion or growth. In the terminology of *fiqh* (Islamic jurisprudence)⁴, *ribā* has the meanings of "*surplus*", "*usury*" and "*interest*". It refers to any profit received without any consideration that is acceptable and legitimate from the point of view of *fiqh*, which considers it acceptable if and only if it compensates for something legitimate, such as the loss of value of an asset, or the effort put into the production of an asset that involved taking a risk. Regarding the major prohibitions found in *fiqh*, *ribā* has been considered one of the most unhealthy transactions to have been severely prohibited.

In Ibn Rušd (1179), we find: "*It is our duty, should we find among our predecessors among the peoples of old, a thoughtful theory of the universe, conforming to the conditions required for demonstration, to examine what they have affirmed in their books*".

⁴ The Semitic root of the term *fiqh* has the meaning of "*to understand*" and "*to conceive*".

We therefore wish to follow on from this line of thought, and will look at how interest, in addition to having been condemned by the Greeks and Romans (1.1), was severely condemned by the scriptural sources of Judaism (1.2), Christianity (1.3) and Islam (1.4).

1.1 Greek and Roman condemnation of interest

In Greco-Roman civilisation, there was a contempt for any form of remuneration for money lent, which was considered to be an unfair system of exploitation constituting a major source of unjustified advantages.

As the Arab philosophy professor Ali Benmakhlouf (2015) has pointed out, allegiance to divine law does not weaken Aristotelian philosophy; on the contrary, it induces it. Aristotle considered men who were greedy and did not respect equality to be unjust. The unjust man either takes too much of the wealth that should accrue to others, in particular through interest, or takes too little of the 'evils' that should accrue to him and which he leaves to others. It is in this sense that, according to Aristotle (350 BC approx.), the greedy man never respects equality and that it is the role of justice as a "whole virtue" to re-establish this equality and combat the pleonexia that often leads to men wanting to monopolise profits and transfer their losses to others. Indeed, Aristotle (384-322 BC) already raised the issue of interest in his Politics, Book 1, Chapter 3: "*We are especially right to abhor usury, because it is a form of acquisition that arises from money itself and does not give it the purpose for which it was created. Money should only be used for exchange, and the interest we derive from it multiplies it, as the name given to it in the Greek language makes clear (the Greek word for 'interest' comes from a root meaning 'to give birth to'). The fathers here are absolutely similar to the children. Interest is money made from money, and of all acquisitions it is the one most contrary to nature.*"

Among the Romans, Cicero (44 BC) quotes Cato the Elder (160 BC), who was asked: "*What should I think about interest-bearing loans?*" and he replied: "*What should I think about murder?*"

Interest was undoubtedly judged by Aristotle and Cato the Elder to be unnatural, because nothing that exists in creation resists the alteration of time, whereas interest, as a human creation devoid of all materiality, tends under the effect of time inexorably towards infinity. By conceptualising interest, man has given a divine attribute to one of his creations, and it is probably for this reason that it is so disapproved of in the scriptural sources of the monotheisms, starting with Judaism.

1.2 Jewish condemnation of interest

The Torah uses two terms to designate interest: נָשָׂא (*néchèh*) the "bite" whose Hebrew root has the meaning of "to bite"; and תְּרִבִּית (*tarbit*) which has the meaning of "surplus" whose Hebrew root has the meaning of "to increase". The "bite" expresses the suffering of the borrower and the "surplus" the enrichment of the creditor. The Old Testament⁵ contains numerous passages condemning the practice of usury (surplus) and interest (bite):

- Exodus 22, 24. Exodus 22:24: "*If you lend money to a fellow countryman, to the needy among you, you shall not behave towards him as a moneylender; you shall not charge him interest.*"

⁵ All the extracts from the Bible quoted are taken from the *Jerusalem Bible* translated by the École Biblique et Archéologique Française de Jérusalem under the direction of Thomas-Georges Chiffot, Éditions du Cerf, Paris, France, 1956.

- Leviticus. 25.35 to 37: "*If your brother who lives with you is in trouble and fails in his dealings with you, you shall support him as a stranger or guest and he shall live with you. Do not take work or interest from him, but have the fear of your God and let your brother live with you. You shall not give him money for profit or food for interest*" Here, "tarbit" has been translated as "work".
- Deuteronomy. 23.19 and 21: "*You shall not lend to your brother at interest, whether it is a loan of money or food or anything else on which interest is charged. To a foreigner you may lend at interest, but you shall lend without interest to your brother, so that the LORD your God may bless you in all your work in the land where you are going to enter to possess it.*"
- Psalms. 15.5 : "*Do not lend your money at interest, do not accept anything to harm the innocent. He who does so will never flinch.*"
- Proverbs 8.8. "*Whoever increases his good by usury and interest, it is for whoever gratifies the poor whom he gathers.*"
- Ezekiel 18:8: "*Do not lend with usury, do not take interest, turn away your hand from evil, give true judgment among men.*"
- Ezekiel 18.13. "*Lends with usury and takes interest, this one will not live after committing all these abominable crimes, he will die and his blood will be on him.*"
- Ezekiel 18.17. "*Turn away your hand from injustice, don't practice usury and don't take interest, practice my customs and behave according to my laws; he will not die because of his father's faults, he will live*".
- Ezekiel 22:12: "*You have received gifts to shed blood; you have taken usury and interest, you have robbed your neighbour by violence, and you have forgotten me, saith the Lord GOD.*"

The Torah forbids any type of loan at interest. Money is neither a commodity nor a productive good, but rather a convention⁶ that facilitates exchanges and makes it possible to measure the value⁷ of things and for which it is not permitted to trade. Work has a privileged position in the Talmud; it is imperatively necessary, as it sustains life and contributes to social order. In general, the recommended occupations were those that could allow engagement with spiritual concerns or that had a spiritual component. This is why the Talmud forbids speculation or the usury of money that contributes nothing to society. Thus, interest became associated with lies and embezzlement and this condemnation remained in the New Testament (Brăilean *et al.*, [2012](#)).

1.3 Christian condemnation of interest

In the Gospel we read: "*And if you lend to those from whom you expect to receive, what gratitude do you have? Even sinners lend to sinners in order to receive the equivalent.*"⁸

We can also mention the parable of the unforgiving servant⁹, which would take too long to quote here *in extenso*, but whose original text has led the clergy to deduce that the Gospel advocates the abolition of debt.

Furthermore, the Latin translation of the fundamental Catholic prayer, the Our Father, "*Et dimitte nobis debita nostra, sicut et nos dimittimus debitoribus nostris*" is literally translated, according to Christian Boudignon, philologist and lecturer at the University of Aix Marseille, as "*Forgive us our debts, as we forgive the debts of those to whom we have lent*". This translation does not correspond to usage, which has Christians saying "*Forgive us our trespasses as we forgive those who trespass against us*".

⁶ The Greek word for money, "*nomisma*", derives from "*nomos*", the law, so it is not natural, but conventional.

⁷ Nietzsche compares man to an "*evaluating animal*" that measures values.

⁸ Saint-Luc 6.34.

⁹ Also known as the parable of the debt according to Matthew (18, 21-35).

We might well wonder about the modesty that led the Church to change the words and therefore the meaning of this prayer, even if the explanation put forward is that in Aramaic the word debt also means "*offence*". The official translation therefore prefers the figurative meaning.

For Aristotle, who condemned chrematistics, money did not have the ability to grow; it was infertile and rather resembled a fungible asset such as wine, which, unlike real estate, could not be broken up. Aristotelian thought had a major influence on scholasticism in the Middle Ages, which sought to reconcile Christian faith and reason. On this subject, in an article on the prohibition of interest-bearing loans, Marie-Jeanne (2013) quoted Saint Thomas Aquinas as saying: "(...) *if someone wanted to sell wine on the one hand and wanted to give up the use of it on the other, he would be selling the same thing twice, or he would be selling what does not exist: he would therefore obviously be doing an injustice.*"

Saint Thomas Aquinas was born around 1225 in Italy. At the age of 14, he left the abbey he had entered at the age of six to study theology and philosophy in Naples. It was at this point that he began to familiarise himself with the works of Aristotle, which he studied for the rest of his life. In the XII^e century, scholars rarely confined themselves to a single subject of study; thought was constructed as a blend of multiple disciplines (theology, philosophy, logic, political science and economics). This academic practice of combining faith and reason, spearheaded by Saint Thomas Aquinas, is known as scholasticism and consisted of reconciling the contributions of Greek philosophy with Christian theology. Scholasticism was made possible when many new books translated by the Arabs arrived in the West via the Mediterranean trade routes. The West rediscovered thinkers such as Galen, Hippocrates, Euclid, Ptolemy and above all Aristotle, whose thought was the foundation for the reflections of Saint Thomas Aquinas. At the age of 20, he left Italy to study in Paris to become a Dominican, where he attended classes given by Albert the Great, who was very interested in Aristotle's thought and became his teacher. It was from 1252 onwards that Thomas, after becoming a bachelor on the recommendation of his master, became a teacher in his own right. Building on the work of Aristotle, St Thomas Aquinas sought to explain the rational nature of divine existence by means of logic, considering it to be the cause of causes in a world characterised by causality. He argued that it was impossible to understand the divine essence because it was beyond human intellectual capacity, and so he developed *the "negative way"* of defining a thing by what it is not. He thus demonstrated his mastery of scholasticism and asserted that, since reason is a good shared by all men, presenting a rational argument is the only way to discuss matters despite differing religious convictions. For St Thomas Aquinas, time cannot be sold without being the object of injustice, since it has no monetary value, which for Aristotle was the greatest evil. St Thomas Aquinas took up Aristotle's analysis and accepted the principle of the market economy, provided that its development was controlled, and its morality preserved. He considered the charging of interest to be iniquitous, insofar as the lender could not claim the return of the capital and claim the price of its use or usury.

Under a loan contract, the lender lends the item free of charge to the borrower, who undertakes to return it in the same condition. If, in exchange for the loan, the lender asks for a sum of money to compensate for the wear and tear or use of the item loaned, the free loan contract becomes a hire contract for a consideration. In this case, the hirer may return the used item, and the rent paid to the lessor becomes compensation and remuneration paid by the hirer in exchange for the wear and tear or use of the item rented. It is clear here that the contract of gratuitous loan is fundamentally different from the contract of lease for valuable consideration, although this does not mean that the contract of lease is unfair, insofar as the rent compensates for a loss of value, or remunerates the actual use of an asset. Because lending should only be free, a "*remunerated loan*" cannot exist in terms of moral justice.

It is a deceptive way of falsifying the characteristics of a gratuitous contract of charity and mutual aid by using a contract of hire for a consideration. The "*interest-bearing money loan*" is in fact a contract for the hire of money that has been misleadingly called a "*loan*". In this "*loan*" transaction, the creditor charges a rent intended to compensate for the wear and tear of a thing that, by its very nature, does not wear out. Indeed, money is a fungible good, i.e. it does not wear out through use, because things of a kind do not perish according to the well-known principle "*genera non pereunt*". This is the main reason why the Church has long considered usury to be theft. It was these manipulations that led Saint Thomas Aquinas to consider that all interest was usury. Usury is a logical error, a sin, a threat to civil order and a form of oppression inherited from antiquity (Lapidus, [1987](#)).

The fathers of the Church were unanimous in their vehement condemnation of the practice of usury, mainly for the following two reasons: firstly, charging interest is explicitly forbidden by the Old Testament and secondly, it is not compatible with the Christian commandment to love one another. For many centuries, the Church's position was that interest led to slavery. Interest leads to debt, which leads to poverty, which leads to slavery. By being unable to pay interest, the indebted borrower involuntarily contracts lifelong servitude (Oslington, [2014](#)). It is in this context that the very idea of economic coercion was first established in relation to usury, considered the most serious economic offence. St Ambrose of Milan declared unequivocally that usury was a form of theft: "*If anyone wears usury, he is committing theft*". The Franciscan tradition was summed up in the XV^e century by Bernardino of Siena in a sermon on economic ethics. The usurer takes what belongs to another person against the latter's absolute will. Catholic doctrine does not condemn the remuneration of capital as such, but only the particular form of interest-based lending known as "*usury*" (Ramelet, [2004](#)). The Church has been uncompromising about the practice of usury: "*We condemn this detestable and appropriative, evil, disloyal rapacity of moneylenders, condemned by divine and human laws, in Scripture, the Old and New Testaments and we cut off its followers from all ecclesiastical consolation, so that no archbishop, no bishop, no abbot of any order whatsoever, or anyone in the orders or the clergy, will recognise them, unless perpetual infamy and they will be deprived of Christian burial, unless they repent*". (Daniel-Rops, [1965](#))

In accordance with these rules, the Church banned interest in Europe, classifying all loans of money as usury, and this ban underpinned the French economy until the Revolution. It was only with Calvin's reform ([1545](#)) that this practice became acceptable. It was Protestantism that justified, in his words, the legitimacy of interest: "*Capital has the character of immediately productive property*" and interest was thus able to acquire a licit character (Marie-Jeanne, [2013](#)). However, Hume ([1767](#)) established an inverse relationship between the interest rate and the wealth of a nation. In France in 1769, Turgot ([1769](#)) wrote: "*interest represents the gain that could have been made if the sum had not been disposed of*". The Encyclopaedists denounced the Church's ban and called for total freedom to lend at interest - with the interest rate set solely by supply and demand - and to trade in money. The Encyclopédie stated that "*the interest rate is a perfectly legitimate rent*". On 2 October 1789, legislation on fixed-interest loans abolished what the kings of France had hitherto defended. On 25 April 1794, the National Convention decreed that money was a commodity like any other. As for the Church, it lifted its condemnation of interest in 1830 and the Vatican made it legal in 1917. It was not until the 20th century^e that the concepts of Catholic thinkers that had fallen into disuse were revived with the development of Islamic finance, praised by the Vatican for its moral principles and approved by the United Nations for its rejection of monetary speculation and its link to the real economy.

1.4 Muslim condemnation of interest

In Islam, the firm and definitive prohibition of *ribā* took nine years. The prohibition was introduced gradually, because historically this practice was deeply rooted in pre-Islamic societies. The Koran¹⁰ explicitly states the following in order of revelation:

- Sura 30, *The Byzantines*, verse 39: { *That which you give for increase at the expense of the wealth of your fellow men does not increase with God. What you offer as alms, desiring [in so doing] the face of God... These are the ones who will have a double benefit [in the Hereafter].* }.
- Sura 4, *The Women*, verse 161: { *[and also] because they practice usury unlawfully and take other people's property dishonestly. For the ungodly We have reserved a painful punishment.* }.
- Sura 3, *The Family of Imram*, verse 130: { *Believers! do not indulge in usury by carrying from double to double [your debt]. Fear God in order to be happy.* }.
- Sura 2, *The Cow*, verses 275, 276, 278, 279 and 280: { *Those who practice usury will rise up [on the Day of Resurrection] like those possessed by Satan, because they have claimed that bartering is the same as usury, whereas God has permitted trade and made usury unlawful. Those who, exhorted by their Lord, forbid themselves this practice will retain their previous usurious gains and their case is a matter for God. Those who repeat the practice, on the other hand, will have fire as their eternal abode [275]. God reduces usurious profit to nothing and increases the merit of almsgiving. God dislikes all hardened and sinful disbelievers [276]. O you who believe! Fear God and renounce what is still owed as usury, if you are [sincere] believers [278]. If you refuse to do so, expect war from God and His Prophet. If you make amends, your capital belongs to you. Thus you will harm no one and no one will harm you [279]. If your debtor is in trouble, [grant him] a period of grace until he can free himself. It would, however, be better for you to remit it to him, if you know [your interest better] [280].* }.

As for the scope of this formal prohibition, Muslim ibn al-Ḥağğāğ (149/875) reported that it extended to the consumer of the *ribā*, the one who gave it, the one who recorded it as well as the witnesses of the transaction.¹¹

The Banū Ṭaqīf tribe known for their practice of lending on interest adopted Islam in the year nine of the Hegira. One of their rival tribes, the Banū Muğīrah, did likewise. From then on, there were no more usurious transactions between them, but there remained a residue of interest that the Banū Muğīrah refused to pay to the Banū Ṭaqīf. According to Al-Aynī (762/1361-854/1451), this dispute was settled a year later during the Prophet Muḥammadﷺ's farewell sermon by the revelation of verses 278 and 279 of the aforementioned Surah *The Cow*. Ibn Iṣāq (149/767) reported that the Prophet Muḥammadﷺ in his farewell sermon in 632, on the 9th day of the month of Dhul-Hijja in the year 10 of the Hegira, put a definitive end to debt fuelled by *ribā*: "*All usury is abolished; but you will have your capital: you will harm no one and no one will harm you. God has decreed that there shall be no usury. The usury of 'Abbas b. 'Abd al-Muttalib is totally abolished*". With this act and shortly before his death, the Prophet Muḥammadﷺ abolished financial slavery. The Prophet Muḥammadﷺ in order to set an example began by abolishing the interest that was owed to his family.

¹⁰ All the extracts from the Koran quoted are taken from the translation by Si Hamza Boubakeur, ENAG Éditions, Algiers, Algeria, 1414/1994.

¹¹ *Ḥadīṭ* No. 1598.

Indeed, it is well known that he asked his uncle ‘Abbās to cancel all the interest that was owed to him. Regarding the different forms of interest, some extracts from the collection written by ‘Abd al-Raḥmān al-Ġazīrī, *Al-fiqh ‘ala al-madāhib al-arba’a* have been reported by Chapra (1997). This collection reports the legal opinions of the four predominant schools of Islamic jurisprudence and classifies *ribā* into two categories:

- The *ribā al-nasī’ah*, in cases where the increase would be in return for a deferred payment. There is no disagreement between ulema about the prohibition of this form of *ribā* ;
- The *ribā al-fadl*, where the increase is independent of the deferral and is not compensated. This is an unbalanced barter between two goods of the same kind. This form of barter is prohibited by the four Sunni schools of jurisprudence. Nevertheless, some companions of the Prophet Muḥammadﷺ, including ‘Abd Allāh ibn ‘Abbās allowed it. However, it is reported that he eventually admitted its prohibition.

The prohibition of *ribā al-fadl* comes from the saying of the Prophet Muḥammadﷺ reported by Muslim ibn al-Ḥaġġāġ (149/875): “*Gold for gold, silver for silver, wheat for wheat, barley for barley, dates for dates and salt for salt, in equal quantities and giving, giving. Anyone who adds or asks for more is guilty of usury. The taker and the giver are equal in this respect*”.¹² It is therefore not possible to sell certain goods against themselves with an increase, or the stipulation of a term in the exchange. It is impossible to sell a one-guinea gold coin for a one-guinea gold coin and ten piastres, whether by cash payment or deferred payment; this also applies to silver, wheat, dates, barley and salt. In this way, speculation on the price of wheat, for example, is made impossible. There is a consensus among the ulama of the four Sunni schools of jurisprudence that, by analogy, the *ribā* covers other goods not mentioned in the *ḥadīth*. If there is a divergence, it is only in the analogy used to reach this conclusion.

Chapra (1997) indicates that only the Zahirite school, which opposed reasoning by analogy, limited the *ribā al-fadl* only to the goods indicated in the *ḥadīth*. Some ulama also differentiated between *ribā al-qurūd*, the *ribā* of loans, and *ribā al-buyū’*, the *ribā* of sales. Chapra (1997) has also recalled this saying attributed to the Prophet Muḥammadﷺ: ‘*cheating a mustarsal (a new entrant to the market) is ribā.*’ As well as, “*The naġiš (the person who acts as a n agent to raise the price in an auction) is a cursed taker of the ribā*”.

Applied to modern economics and finance, it is understood from these texts that the prohibition of *ribā* also includes taking advantage of informational asymmetry or market price manipulation. Through the mechanism of marking to market, these prohibitions increase the fairness and efficiency of markets and can improve economic efficiency, encouraging cooperation and reducing informational asymmetries. At the opposite extreme from debt and guaranteed gain whatever the outcome of the transaction, betting - where it is not the gain but the risk of loss that is almost certain - is also explicitly prohibited in the primary sources of *fiqh*. The purpose of this prohibition is to protect society from zero-sum games leading, as is the case with *ribā*, to enrichment at the expense of others without the creation of added value. Finally, these two main prohibitions on *ribā* and betting have the effect of considerably increasing market efficiency and compliance with them is a factor of fairness and stability.

¹² *Ḥadīth* No. 1585.

Thus, this condemnation of *ribā* raises the question of the ethical or moral value of a system that remunerates the idleness of capital through bank interest or the possibility of getting rich at the expense of others thanks to betting, and which allows the rich to be ever richer without having to make any effort other than that of being rich. This position seems ethically and morally untenable and unacceptable: both from a traditional point of view, by referring to the sources of the various forms of human wisdom, whether the ancient Greek and Roman wisdoms, or one of the three monotheisms; but also from a modern point of view, when we contemplate the state of depravity of today's world enslaved by the grip of debt and the system of financial slavery which, through the excessive exploitation of nature and living things, has led to the destruction of ecosystems. This condemnation is part of the principles of justice and balance that must be maintained within the framework of a metaphysics, in the Aristotelian sense of the term, that could be described as monetary.

2. Monetary metaphysics

Aristotle defined metaphysics for the first time, describing it as the first philosophy in dignity and importance (Aubenque, [2009](#)). In a context that fuels speculation, where sick financial markets are infused with liquidity, we propose to rethink the question of a metaphysics of money. This monetary metaphysics, with its attachment to the principle of justice, is distinct from modern finance, which is speculative and disconnected from the financing of the real economy, and which is all too often criticised for its cyclical instability and the abuses it generates.

In the metaphysical paradigm, justice is a natural and universal order, and it is up to human beings to preserve it. The financial system cannot be the exception; if it is to be legitimate, it must be dignified and just. To achieve this, the business risk between contracting parties must be shared fairly, in addition to the financial risk borne by the provider of funds. However, the current financial system, based on the legalisation of interest-bearing loans, exempts the financier from the business risk and places him in a position of gain, whatever the outcome of the transaction.

Throughout the Middle Ages, the great controversy surrounding usury in the West is considered by contemporary historians such as Le Goff ([1986](#)) as "*the birth of capitalism*". Economic and monetary issues quickly moved beyond their initial moral dimension. Capitalism and all the practices associated with it were established and made possible by the gradual lifting of religious taboos, particularly those concerning money. Freed from the precious metal of the feudal monetary order, *credit money* (debt money) allowed capital to expand, because it carried with it the injunction to grow: it was an advance on production, an invitation to produce more than had been borrowed to pay the interest. So we can say that capitalism is nothing more than the philosophical and political sanctification of interest.

Over the years, physics and the mechanistic approach of the '*hard*' sciences have served as a model. This interest in rigorous mathematical formalisation has given the '*sciences*' of economics a special status and prestige, as they seek to establish that phenomena are governed by immutable causal relationships. Like Newton and Einstein, economists seek to discover the causal relationships that govern the phenomena they study, and to integrate their interpretations into a general theory with synthetic and hypothetical characteristics. As in the hard sciences, to explain here means to establish the validity of a causal relationship with a claim to universality.

Léon Walras' theory of general equilibrium, which attempted to set up a "*social physics*", was a crucial event at this stage. Although extremely controversial in its day, it was axiomatised in the 20th century by leading economists.

It was on the basis of this 'pure' economic theory that they went on to build their models and develop specific propositions that would serve as a framework for most of the research that followed. But just as the condemnation of interest was fading, mainstream economics overlooked the fact that this mechanism contradicted at least two fundamental principles of physics: those of entropy (2.1) and equilibrium (2.2).

2.1 Interest rates and entropy

According to a fundamental physical principle, everything in the entire universe, including human beings, is doomed to extinction.¹³ Physicists explain the same phenomenon with the notion of "entropy". Entropy means that the material universe continually loses an infinitesimal part of its mass without any possibility of recovering it. It is often thought of as the amount of disorder in a system. When it is said that "entropy is increasing", this refers to the tendency of all physical systems to move irrevocably towards more disorder. Although entropy always increases, its rate of increase can vary. Once picked, fruit decomposes in a matter of days, buildings left unattended fall into disrepair in a matter of years, and the minerals in the earth's crust can remain for millennia with little sign of deterioration. This trend, encapsulated in the second principle of thermodynamics, has been applied to the physical dimension and these analyses have many implications for the economic process. However, a closer look at the structure of the interest-based financial system reveals that it contradicts the very nature of the entropy process.

Among the types of interest used in modern finance, a distinction is made between "simple" interest and "compound" interest. The first convention applies to the charging of interest on the principal amount of a loan, while the second applies to the principal amount and interest at specified intervals.

To analyse the practical application of these two types of interest, let's take the simple example of a man borrowing 100 loaves of bread at an annual rate of 5% in the year 20 AD. The amount of the loan remaining to be repaid at the end of the second year with a simple interest rate would only be 110 loaves ($100 \times [1 + 0.05 \times 2]$) since the first year's interest of 5 loaves would not itself earn any interest during the second year. In 1995 AD (i.e. 1975 years later), the total amount of the loan outstanding and now due would be 9975 loaves of bread ($100 \times [1 + 0.05 \times 1975]$). In other words, no compounding will take place under the simple interest system. However, in the case of compound interest, the total amount due for repayment after the first year (21 AD) would be the original loan amount of 100 loaves plus 5 loaves of interest. The new principal amount would then be 105, on which interest would again be charged at 5%. In the year 22 AD, the total amount to be repaid would be 110.25 loaves. Those familiar with the process of compound interest will not be surprised by the surprising result, to say the least, when the same calculation is made over a long period. In 1995 AD, the total amount of the loan outstanding and now due exceeds 700,000 billion billion billion billion loaves of bread ($100 \times [1 + 0.05]^{1975}$). As absurd as this figure may seem, we can't help thinking that there wouldn't be enough bread available to cover it even if every person who has ever lived on Earth had successfully produced and stored even 10 million loaves a day. As a result, the continual payment of simple and compound interest is arithmetically, as well as practically, impossible. In fact, repayment would still be impossible if the original lender charged a more lenient interest of 2.5% per annum (El Diwany, [1997](#)).

¹³ The Qur'an in Sura 55, *The All-Merciful*, verses 26 & 27: { *All that is earth is doomed to nothing. [Only] the face of your Lord full of majesty and nobility will endure.* }

A strange phenomenon is at work in the above example, as the mathematics employed collides head-on with the realities of the physical world. If bread decomposes and rots, interest-bearing loans follow the opposite path. In a simple barter economy, an individual would hold his surplus wealth in the form of physical assets. By keeping it, he would incur a kind of "*storage cost*", and another could also arise over time since the quality of the stored assets would be subject to the law of entropy. In an interest-based economy, €100 borrowed has to be repaid in the amount of €100 plus interest. But these €100 of money lent at interest do not obey the same law. When compound interest is applied, a given monetary value can miraculously follow the path of infinite geometric increment (Soddy, [1921](#), [1933](#)).

The interest rate therefore has the power to transform capital into a fearsome monster. In this way, an unhealthy accumulation of capital takes place in the hands of a handful of individuals, affecting at the same time its equitable distribution. This dangerous phenomenon is leading our societies towards a plutocracy, prone to economic monopolisation and concentration; to such an extent that the principles of free competition and free enterprise are in practice greatly weakened. The usurious transaction poses a problem because it endorses an injustice that materialises in an unstable balance of power between creditor and debtor.

2.2 Interest rates and balance

The discoveries of science also point to a universe dependent on a series of laws based on equilibrium. The entire universe is subject to a uniform law, and its constituent parts come together to form a glorious harmony in both its structure and its movement. This supreme principle operates everywhere in the creation of the universe: Isaac Newton's law of gravitation, the solar systems, the galaxies, even the orbital motion of the planets all possess the same mathematical precision.¹⁴ If there had been an absence of absolute justice (*'adl*) in the operation anywhere in the universe, disorder and universal chaos would naturally have followed. By the same token, in Islam man is considered to be a social animal par excellence. He must maintain a balance and treat his fellow human beings with justice and fairness.

The fundamental unit in economic life is the *transaction*. Since this invariably involves at least two parties, the precondition for any fair economic transaction is absolute justice in the exchange. Man's conduct is then bound by considerations of reciprocity (treating the other party in the same way as he treats himself). Any contract is best explained as a transfer of rights, which is complete at the time of the agreement and which is governed by a defined conception of justice and morality. Thus, the golden rule "*Don't do to others what you wouldn't want done to you*" applies to the economic sphere more than any other, because it involves an exchange. However, a problem arises when the contract is vitiated and one party to the transaction gains the upper hand over the other. When the scales tip too far to one side of the economic transaction, an imbalance is automatically created, with consequences that can be harmful to both sides, without anyone being able to imagine at the time just how far-reaching this can be. In fact, if efforts are always demanded of the same side, and if the bar is not raised, human relations become strained, with one side taking the upper hand over the other, with all that this entails in terms of frustration, anger, bitterness, desire for revenge or hatred. The same is true of economic relations between human beings who are bound by the transaction, the *sine qua non of which is to be fair and equitable*.

¹⁴ We find in the Qur'an in Sura 36, *Yā-Sīn*, verse 40: { *It is not fitting for the sun to reach the moon, nor for the night to precede the day. Everything sails in a sphere.* }

The imbalance arises precisely when an interest rate is charged, because the borrower bears a large part, if not all, of the risk. In fact, the very foundation of the conventional financial system, whose mainstay is the interest rate, is a perfect illustration of a violation of absolute justice and of the law of equilibrium necessary to any economic transaction.

As explained above, interest follows a pattern of exponential growth. The exponential growth of interest grows very slowly at first, then more and more rapidly, and finally soars almost vertically. In the physical world, this pattern of growth usually manifests itself during illness or the approach of death (Kennedy, 1995). Cancer, for example, follows a pattern of exponential growth. It develops slowly at first, even though it is constantly accelerating, and often, by the time it is discovered, it has entered a phase of growth that cannot be stopped. In the physical world, exponential growth generally ends with the death of the living organism and its host. In the same way, interests, as Aristotle asserted, are unnatural and constitute a cancer within the social structure. So there can be no doubt that the interest-based financial system is doomed to instability and even disintegration.¹⁵ The recession or *crash*, which takes the form of a correction (or a more or less sudden downward movement) and puts a stop to a general upward trend (artificial growth), is the end point of the interest cycle. The latter is based on an injustice that always ends up exploding in mid-air, because it requires a natural rebalancing. The economic and financial crisis is therefore the idea of a cataclysm, a natural catastrophe, as a concrete expression of the regulatory mechanism. Crisis and disorder are therefore inevitable, because they are the very nature of capitalism. The history of capitalism is punctuated by economic crises, all of which can be traced back to the trajectory of debt and interest. Economic necessity and mathematical impossibility give rise to a contradiction which, if it is to be resolved, must give rise to crises, wars and revolutions. The lauders of the conventional financial system fail to recognise that the "*prosperity-recession*" cycle is caused by the "*boom*" that precedes it, because the latter is a thick fog that in fact conceals over-indebtedness, a phenomenon noted by many economists such as Nobel Prize winner Irving Fisher, who identified excessive indebtedness as the cause of depressions. Therefore, as long as the economic and financial system is based on the destabilising factor of interest rates, it will contain the seeds of its own destruction.

3. Discussion

This research has led to two major contributions. Firstly, a definition of money in monetary metaphysics as a melting-interest-free currency (3.1). Then, after showing that the practice of interest is contrary to the physical laws of entropy and equilibrium, we raise the question of the cancellation of debt interest in monetary metaphysics (3.2). In this discussion, we develop these two evidences using examples from classical fiqh literature and some contemporary authors.

3.1 Definition of money in monetary metaphysics

We find in the writings of Abū Hāmid al-Ġazālī (c. 1097), that money is one of the divine blessings, the mirror in which the health of the economy is reflected, like an objective and impartial judge delivering his verdict. As a divine blessing, money therefore takes on a sacred dimension in monetary metaphysics, as Guénon (1945) was able to emphasise. For money to fulfill its function, we must neither limit its circulation through hoarding, nor increase its quantity without any real counterpart through interest.

¹⁵ We find in the Qur'an in Sura 2, *The Cow*, verse 276: { *God reduces usurious profit to nothing and increases [the merit] of almsgiving.* }

On the contrary, the system of "melting money" using *zakāt* not only helps to reduce inequalities, it also combats hoarding and speeds up the circulation of money. Indeed, a wide circulation of money describes the vitality of an economy, which is measured at the rate of an important indicator that is the "velocity" of money. In simple terms, the velocity of money refers to the speed with which money changes hands as it is spent and moves through the economy. It is an important measure of the rate at which money in circulation is used to purchase goods and services. High monetary velocity is generally associated with a healthy, expanding economy. Thus, the third pillar of Islam, through the practice of *zakāt*, institutionalizes solidarity in a mechanical way in society by coming to tax all idle and hoarded capital, whereas the bank interest system institutionalizes idleness, through the remuneration of hoarding. Moreover, certain indications were left by many other classical Muslim jurists, including Muḥammad al-Šaybānī, Ibn Taymiyyah and Ibn al-Qayyim, who did not limit currency to gold and silver only. Imam Aḥmad ibn Ḥanbal ruled that there was no harm in adopting as currency anything that could be accepted by the people. Imam Ibn al-Qayyim shared the Aristotelian view of the nature of money: it should not be demanded for its own sake, and its purpose is only to enable exchange between goods and services. If money becomes a commodity demanded for its own sake, it will result in a lot of "harm" for people. In *fiqh*, money must have four intrinsic characters to qualify as money as such: fiduciarity, fungibility, liquidity and finally universality. Thus, money is first and foremost a means of exchange, not a commodity. The price of money must be equal to zero. Indeed, considering money as a commodity contravenes the principles of justice and equity, since it can encourage hoarding, inflation and social injustice. Since two units of the same currency have the same value, it is impossible to make a profit by exchanging them. Oubdi and Raghibi (2018) have pointed out that, according to Ibn Taymiyyah, the physical element of money could never be the object of its conservation, but rather it was the consideration that its possession could procure that constituted its *raison d'être*. Thus, to profit from its possession, one must either spend it or add one's labor power to it. In Islam, therefore, money is not considered as a commodity, nor as a productive good, but rather as a convention that facilitates exchanges and enables the value of things to be measured, and for which it is not permitted to divert its function in order to trade and enrich oneself.

3.2 The question of debt interest cancellation in monetary metaphysics

It is surprising to see how this issue of debt and slavery has remained topical over the centuries (Graeber, 2011) and has been extended to the African continent (Sankara, 1987). Examples include the Christian masses dedicated to the Jubilee and debt in 1998-1999, and the millions of signatures in favour of debt cancellation for poor countries collected directly outside churches (Toussaint, 2006). The rules of *fiqh* teach us that, to be valid, a contract must respect certain principles. Firstly, the object of the contract must be lawful and freely consented to by the parties. Secondly, the contract must be balanced and fair between the parties. When these components and conditions of compliance with the rules of *fiqh* are met, the contract is deemed valid (*ṣaḥīḥ*). It may then be enforceable or contingent. When a contract is valid in essence, but contains a condition not authorized by *fiqh*, it is deemed corrupt (*fāsid*) and becomes unilaterally voidable without the consent of either party. When it is invalid both in its essence and in its terms, the contract will then be qualified as void (*bāṭil*). Thus, due to an illicit object based on interest, loans contracted by over-indebted states, companies and households worldwide are considered null and void. Consequently, interest should be purely and simply annulled for the whole of humanity as an absolute, legitimate and universal right.

Conclusion

As we have just shown, the condemnation of interest is found among the Greeks and Romans, as well as in the scriptural sources of the three monotheisms. Rather, it is a universal attribute shared by various forms of human wisdom and spirituality, which remind us that money cannot be distorted by interest, which violates the physical laws of entropy and equilibrium.

Today, the disciplines of Islamic economics and finance are still trying, not without difficulty, to preserve the natural laws of monetary metaphysics. Thus, researchers and practitioners in Islamic economics and finance still have much to contribute to humanity in terms of economic and financial ethics.

This contribution can benefit the whole of humanity through a better conception and definition of money, as well as through the affirmation that the cancellation of interest on any debtor's debt is an absolute, legitimate and universal right. Human beings are born free and equal, and must be freed from the burden of interest on their debts.

Having shown that money should be melting and that interest should be outlawed, we continue our research into the issue of ex-nihilo money creation through the granting of credit, and the design of a new money creation process that respects monetary metaphysics.

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