Perspectives on Fractional Reserve Banking and Money Creation/Production through the Lenses of Legal and Religious Moral Precepts and Ethics

Assistant professor **Mejd Aures BENLALA**[1]

Abstract

Today's financial and banking systems are built on fractional reserve banking. This article sheds light on the role of commercial banks with regards to money creation/production under this system of fractional reserve banking. After exploring the nature of the process of money creation/production, the research paper diligently scrutinizes this process through the lenses of legal and religious moral precepts and ethic. The article concludes, with solid supporting arguments, that money creation/production under fractional reserve banking is immoral, ethically wrong and harmful at both individual and societal levels, with numerous legal and religious violations at its core.

Keywords: *commercial banks; fractional reserve banking; Islamic banking; legal and religious precepts; money creation.*

JEL Classification: E31, E41, E42, E51, G21, K34, P48

1. Introduction

For us humans, the universal condition of scarcity is essentially the most basic economic fact of our life and environment. We lack sufficient means to realize all of our ends. Just like time, all other means at hand are limited too. This compels us to carefully and wisely choose how to use (or not use) these resources. The use of all means of action is basically governed by the law of diminishing marginal value which stipulates that the marginal value (relative importance) of any unit of an economic good for its owner decreases with the control and acquisition of a greater overall supply of this good, and vice versa. For example, the marginal value of a sip of water (additional) is very different for a person stranded in a desert than for the same person diving and swimming in a lake. Therefore, the creation (production) of additional units of money makes money less valuable for the owners of these additional units, especially when compared to all other goods and services. As a consequence, buyers of goods and services, will tend to pay more money in exchange for these goods and services; and in turn sellers of these goods and services will tend to demand higher money compensations. In short, money production entails a tendency for prices to increase, even though this may happen steadily in a process spread out through time affecting each price to a different extent.

In order to determine how ethical is the process of money creation in today's banking system from legal and religious perspectives, this article, first, clarifies the role of commercial banks by providing evidence pointing to the fact that commercial banks are (in reality) not financial intermediaries, but rather private entities with an exclusive right (privilege) to create money out of thin air. The article adopts a descriptive analytical approach to explore the nature of money creation/production under fractional reserve banking, as it builds its arguments and portrayal of the fractional reserve system on previous empirical research backed with assertions of experts and practitioners in the field of finance and banking. After that, the research paper delves into the discussion with a critical analysis of this process of money creation/production (under fractional reserve banking) from both legal and religious perspectives. The article concludes, with irrefutable supporting arguments, that money creation/production under fractional reserve banking is in a blatant violation of the legal and religious moral precepts and ethic.

Prior research on the subject from Huerta de Soto[2] and Hulsmann[3] is of the outmost importance (the reference by excellence), they both provide comprehensive analysis with solid

---

[1] Mejd Aures Benlala - Department of Economics, University of Batna 1, Algeria, majdaures.benlala@univ-batna.dz.

[2] J. Huerta de Soto, *Money, Bank Credit, and Economic Cycles,* Ludwig Von Mises Institute, Auburn, AL., 2006.

[3] J. G. Hulsmann, *The Ethics of Money Production,* Ludwig Von Mises Institute, Auburn, AL., 2008.

arguments in their legal examination of the fractional reserve banking system, Bagus & Howden[4] contributed to the subject by arguing against free banking as it is conceptualized by the likes of Selgin[5], who in turn responded to their arguments with his own rebuttal[6]. With regards to the religious point of view, Al-Sabhany[7] discussed different aspects of money (including - but not exclusively - under fractional reserve banking) from an Islamic perspective and backed his analysis with logical conclusive arguments. My work builds and expands on the aforementioned works by delving, with new perspectives and arguments, deeper into the nature of this process of money creation/production under fractional reserve banking in order to expose its inherent socio-economic and legal harms and defects that essentially constitute blatant violations of the legal and religious moral precepts and ethic.

2. Fractional reserve banking and money creation/production

Money was defined by definitions that focused on its functions. It is anything that is generally accepted by law in the fulfilment of obligations, and is used as an intermediary in the exchange, as a unit of account, a store of value, and a tool for settling deferred or future payments. Scitovsky argues that money, *"is a difficult concept to define, partly because it fulfils not one but three functions, each of them providing a criterion of moneyness ... those of a unit of account, a medium of exchange, and a store of value"*[8]. Standard textbooks define money as any medium that is commonly considered to have the following three properties: (1) store of value, which allows money holders to conserve purchasing power over time; (2) unit of account, which serves as a reference in which the value of goods and services is measured; and (3) medium of exchange, which makes it ideal for the purpose of settling transactions.[9]

Now for the purpose of this article, I will include definitions of the two forms of money that this paper's discussion part will revolve around; legal money and commercial bank money (deposit money). Legal money is a type of a medium of exchange that has been authorized/imposed as money by a government's laws and regulations. The ability to pay taxes is the most obvious indicator of a currency's legality. In its print or electronic form, it might not have any intrinsic value. Fiat money, legal tender and legal money can all be used interchangeably. The portion of the total money stock held by nonbank agents in the form of electronic bank deposits is what we call commercial bank money. While keeping system-wide money stocks constant, bank customers (commercial bank money holders) turn their commercial bank money into physical cash back and forth (this is similar to the transfer of funds electronically across banks). So, when banks lend money (granting a loan) they create a deposit (money). Therefore, lending adds to the bank's total money stocks, while loan repayments destroy its total money stocks accordingly. In contrast, non-bank lending refers to a transfer of (already) existing legal money stocks from one economic agent to another. Hence, through a debt, one economic agent subtracts from its own money holding and adds to another's.[10]

Fractional Reserve Banking is an essential component of all today's modern economies. The practice of lending out most, but not all, of the deposits held by bankers (institutions) was first developed in Europe in the 16th century and has been followed ever since. To protect the bank in the event that many or all of its depositors demanded cash at the same time, the practice of holding a

---

[4] P. Bagus & D. Howden, 'Fractional Reserve Free Banking: Some Quibbles.' *Quarterly Journal of Austrian Economics,* vol. 13, no. 4, 2010, pp. 29-55, https://mpra.ub.uni-muenchen.de/79590/1/MPRA_paper_79590.pdf (accessed 15 December 2022); P. Bagus & D. Howden, 'Unanswered Quibbles: George Selgin Still Gets It Wrong with Fractional Reserve Free Banking', *Revista Procesos de Mercado*, vol. 8, no. 2, July 2011, pp. 83-111, http://dx.doi.org/10.52195/pm.v8i2.248.

[5] G, Selgin, *The Theory of Free Banking: Money Supply under Competitive Note Issue*, Rowman and Littlefeld, New Jersey, 1988.

[6] G, Selgin, 'Mere Quibbles: Bagus and Howden's Critique of The Theory of Free Banking', April 4, 2011, http://dx.doi.org/10.2139/ssrn.1800813.

[7] A. Al-Sabhany, 'Al-noqood Al-Islamiya qama yanbaghi an taqoon: Money as it should be in an Islamic System', *king Abdul-Aziz University journal of Islamic economics*, vol. 10, pp. 3-38, 1998, https://al-sabhany.com/images/Pdf/Money_as_it_Should_Be_in _an_ Islamic_System.pdf (accessed 12 November 2022).

[8] T. Scitovsky, *Money and the Balance of Payments*, 1st edn, Routledge, 1969, p. 1, https://doi.org/10.4324/9781315438924.

[9] N.G. Mankiw, *Macroeconomics,* 7th edn, Worth Publishers, New York, 2010, pp. 80-81.

[10] M. Gross & C. Siebenbrunner, 'Money Creation in Fiat and Digital Currency Systems', *IMF Working Paper*, WP/19/285, December 2019, pp. 8-9, https://doi.org/10.5089/9781513521565.001.

fraction in reserve was initially instituted. Fractional reserve banking allows banks to "create money" through lending, thus increasing the money supply during periods of economic expansion and growth, whether it is mandated by caution or a system of banking regulations. The majority of economics textbooks assert that banks "create" money. „*Eighty percent of the bank deposits are loaned out, but they're still considered as being 'in the bank.*"[11]

During the gold trading era, goldsmiths realized that not all people demanded their deposits at the same time, this paved the way to the emergence of the concept of *fractional banking.* People received a promissory note whenever they deposited their silver and gold coins at goldsmiths. Later, the notes were recognized as a valid medium of exchange, and their owners used them in commercial transactions. The goldsmiths understood that not every saver/depositor would withdraw his deposits at the same time because depositors used the notes directly in trade. Therefore, along with the storage fee they were charging the deposits, goldsmiths started issuing loans and bills with high interest rates. Eventually, the goldsmiths turned from being safe-keepers of valuables to interest-paying and interest-earning banks. Later, history revealed that whenever the note-holders lost faith in the goldsmiths, they would withdraw all their deposits simultaneously leaving the bank (goldsmith) insolvent due to the lack in reserves to support the mass withdrawals. This prompted governments to come up with laws to establish a central institution (agency) to control and regulate the banking industry. In this regard, Sweden established the first central bank in 1668, and the rest of the world followed. Central banks became in charge of regulating commercial banks, setting reserve requirements, and more importantly they became the lender of last resort to any commercial bank affected by banks runs.[12]

When asked about fractional reserve banking, in his statement before the U.S. house of representatives Professor Salerno said the following: "*Fractional reserve banking occurs when the bank lends or invests some of its deposits payable on demand and retains only a fraction in cash reserves, hence the name "fractional reserve banking." All U.S. banks today engage in fractional reserve banking.*"[13] Similarly, professor Cochran stated that: "*Fractional reserve banks developed from two separate business activities: banks of deposit, or warehouse banking, where banks offering transaction service for a fee; and banks of circulation or financial intermediaries. Circulation banking, if clearly separated from deposit banking, reduces transaction costs and enhances the efficiency of capital markets, leading to more savings, investment, and economic growth. Fractional reserve banking combined these two types of banking institutions into one: a single institution offering both transaction services and intermediation services. With the development of fractional reserve banking, money creation--either through note issue or deposit expansion--and credit creation became institutionally linked. Banks create credit if credit is granted out of funds especially created for this purpose. As a loan is granted, the bank prints bank notes or credits the depositor on account. It is a creation of credit out of nothing. Created credit is credit granted independently of any voluntary abstinence from spending by holders of money balances*."[14]

When explaining the process of money creation/production by commercial banks, some economics textbooks taught at universities around the world claim that commercial banks are required to hold only a fraction of customer deposits as reserves and may use the rest of the deposits to grant loans to borrowers. However, when awarding loans, commercial banks merely accept promissory notes in exchange for credit that they deposit (digitally) in the borrower's account. Hence, deposits to the borrower's account, as opposed to giving loans in the form of cash or currency, are basically part of the process banks use to create money. Because of this, whenever a bank grants a loan, it

---

[11] Foundation For Teaching Economics, 'Activity 6: Show Me the Money! A Fractional Reserve Banking Simulation', *fte* [website], https://www.fte.org/teachers/teacher-resources/lesson-plans/efiahlessons/show-me-the-money-activity/ (accessed 13 December 2022).
[12] Corporate finance institute team, 'Fractional Banking', *Corporatefinanceinstitute* [website], https://corporatefinanceinstitute.com/resources/economics/fractional-banking/ (accessed 28 December 2022).
[13] J. T. Salerno and Cochran, J. P., 'Fractional Reserve Banking and The Federal Reserve: The Economic Consequences of High-Powered Money', *Hearing Before the Subcommittee on Domestic Monetary Policy and Technology of the Committee on Financial Services*, U.S. House of Representatives, 112th Congress, 2nd Session, June 28, 2012, https://www.govinfo.gov/content/pkg/CHRG-112hhrg76112/html/ CHRG-112hhrg76112.htm (accessed 21 November 2022).
[14] Ibid.

generates new money, increasing the total amount of money in circulation. For instance, when a person takes out a $100,000 mortgage loan, the bank credits the borrower's account with the appropriate amount of money rather than handing him currency or cash equal to the loan's value.[15]

In their defense of fractional reserve banking and money creation, Rendahl and Freund said: *"In recent years, some have claimed that banks create money 'ex nihilo'. This column explains that banks do not create money out of thin air. From an economic viewpoint, commercial banks create private money by transforming an illiquid asset (the borrower's future ability to repay) into a liquid one (bank deposits)".*[16] Notice how they considered 'someone's ability to repay in the future' an illiquid asset, I am not going to focus on this debatable claim but rather examine how they portrayed the granting of a loan as an exchange of a borrower's promise to pay back in the future for what they considered a liquid asset 'bank deposits'. This begs the question: where did the bank get the liquid asset? Only three possibilities are conceivable in this context; a) prior to the borrower's demand for the loan. The bank already had the money in its possession (bank's liquid money – i.e. investors/ savers money deposited with the bank), b) the bank created the money demanded by the borrower 'instantly' as soon as he approached it for the loan (computer inputs into the borrower's deposit account) and c) the bank turned the borrower's promise (ability) to pay in the future into an instant liquid asset (deposit money) which is exactly similar to what Rozeff[17] tried to argue in his defense of the fractional reserve banking by claiming that when banks grant loans they create new money in the form of a purchase of the borrower's IOU in exchange of the bank's IOUs, so ultimately the money in this magical context belongs to the borrower in the first place and yet the bank loaned him 'his own future money' with an obligation of him relinquishing the same amount of money to the bank in the future (plus interest)!! So, the granted loan is basically computer inputs banks add to the borrower's account. It is like 'the bank' saying *I will lend you money that I don't have (did not exist until you (the borrower) demanded it) because I have a right and privilege (by law) to create it (computer inputs) as soon as you demand it (need it). I am exchanging (trading) something that do not exist (new deposit money) for another thing that do not exist yet 'today', which is your ability (promise) to pay in the future*. How can this not be creating money out of nothing! Moreover, they cannot explain where did they get the liquid asset (bank deposits), as their premise would only make sense if the liquid asset they were referring to came from savings/investments (i.e. saving deposits), which in reality does not.

To answer the question of whether banks can create money out of nothing, Werner[18] examined the three hypotheses (theories) that are recognized in the literature. The financial intermediation theory of banking contends that banks are simply intermediaries, gathering deposits to be lent out like other non-bank financial institutions. The fractional reserve theory of banking holds that while individual banks are merely financial intermediaries and cannot create money, as a group they do so through systemic interaction. The third theory, known as the "credit creation theory of banking," holds that every single bank has the ability to create money "out of nothing" when it extends credit. Now which of the theories is correct has significant ramifications for research and policy. Unexpectedly, no empirical study has up until now tested the theories, despite the ongoing controversy. Werner carried out an empirical test, whereby a loan is taken (borrow money) from a cooperating bank while its internal records are being scrutinized and monitored in order to determine whether the bank transferred funds from other accounts - within or outside the bank - or if they were created from scratch when making the loan available to the borrower. For the first time using empirical evidence, Werner's study proved that banks individually create money out of thin air. The banks independently create (in his own words) the "fairy dust" that serves as the money supply. According to Werner's study, customer deposits are accounted for on the balance sheet of the financial institution. The

---

[15] Corporate finance institute team, Para. 4.

[16] P. Rendahl & L. B. Freund, 'Banks do not create money out of thin air', *Centre for Economic policy research cepr* [website], 14 December 2019, https://cepr.org/voxeu/columns/banks-do-not-create-money-out-thin-air (accessed 17 December 2022).

[17] M. Rozeff, 'Rothbard on Fractional Reserve Banking: A Critique', *The Independent Review,* vol. 14, no. 4, 2010, p. 500, https://www.independent.org/pdf/tir/tir_14_04_02_rozeff.pdf, (accessed 20 September 2022).

[18] R. A. Werner, 'Can banks individually create money out of nothing? - The theories and the empirical evidence', *International Review of Financial Analysis*, vol. 36, 2014, pp. 1-19, http://dx.doi.org/10.1016/j.irfa.2014.07.015.

financial intermediation theory, which contends that banks are not unique and are essentially undifferentiated from non-bank financial institutions that must keep customer deposits off balance sheet, is in conflict with the empirical evidence provided by Werner's study. While non-bank financial institutions record customer deposits off their balance sheet, banks actually treat customer deposits very differently. Werner discovered that the bank actually treats customer deposits as a loan to the bank, which is why they are listed under the heading "claims by customers." This concords with the legal analysis of the demand deposit (current account) I conducted recently[19]. Therefore, only the credit creation theory or the fractional reserve theory of banking can reconcile with these findings and make sense of them.

Now these are some 'Money Creation' useful quotes of some prominent economists as well as central bank officials.

Schumpeter: *"It is much more realistic to say that the banks 'create credit', that is, that they create deposits in their act of lending, than to say that they lend the deposits that have been entrusted to them. And the reason for insisting on this is that depositors should not be invested with the insignia of a role which they do not play. The theory to which economists clung so tenaciously makes them out to be savers when they neither save nor intend to do so; it attributes to them an influence on the 'supply of credit' which they do not have."*[20]

Keynes: *"... [a bank] may itself purchase assets, i.e. add to its investments, and pay for them in the first instance at least, by establishing a claim against itself. Or the bank may create a claim against itself in favour of a borrower, in return for his promise of subsequent reimbursement; i.e. it may make loans or advances."*[21]

Minsky: *"Money is unique in that it is created in the act of financing by a bank and is destroyed as the commitments on debt instruments owned by banks are fulfilled. Because money is created and destroyed in the normal course of business, the amount outstanding is responsive to the demand for financing. [.] Banking is not money lending; to lend, a money lender must have money. The fundamental banking activity is accepting, that is, guaranteeing that some party is creditworthy. [...] When a banker vouches for creditworthiness or authorizes the drawing of checks, he need not have uncommitted funds on hand. He would be a poor banker if he had idle funds on hand for any substantial time. In lieu of holding non-income-earning funds, a banker has access to funds. Banks make financing commitments because they can operate in financial markets to acquire funds as needed; to so operate, they hold assets that are negotiable in markets and hold credit lines at other banks."*[22]

Berry: *"When banks make loans, they create additional deposits for those that have borrowed the money."*[23]

Constâncio (Vice President, the European Central Bank, 2010-18): *"It is argued by some that financial institutions would be free to instantly transform their loans from the central bank into credit to the non-financial sector. This fits into the old theoretical view about the credit multiplier according to which the sequence of money creation goes from the primary liquidity created by central banks to total money supply created by banks via their credit decisions. In reality the sequence works more in the opposite direction with banks taking first their credit decisions and then looking for the necessary funding and reserves of central bank money."*[24]

King (Governor, the Bank of England, and Chairman, the Monetary Policy Committee, 2003-13): *"When banks extend loans to their customers, they create money by crediting their customers'*

---

[19] M.A. Benlala, 'The Characterization of the Demand Deposit as a Loan under Fractional Reserve Banking: A Critical Legal Analysis,' *Perspectives of Law and Public Administration*, vol. 11, no. 4, December 2022, pp. 638-649, https://www.adjuris.ro/revista/articole/An11nr4/16. M.A. Benlala.pdf (accessed 03 January 2023).

[20] J. Schumpeter, *The Theory of Economic Development,* Harvard University Press, Massachusetts, 1949, pp. 97-98.

[21] J. M. Keynes, *A Treatise on Money,* Macmillan and Co., London, 1930, p. 21.

[22] H. P. Minsky & H. Kaufman, *Stabilizing an unstable economy*, Vol. 1, McGraw-Hill, New York, 2008, pp. 256, 278.

[23] S. Berry, R. Harrison, R. Thomas & I. Weymarn, 'Interpreting movements in broad money', *Bank of England Quarterly Bulletin Q* 3, 2007.

[24] V. Constancio, 'Challenges to monetary policy in 2012', *Speech at 26th International Conference on Interest Rates,* Frankfurt am Main, 8 December 2011, p. 5, https://www.bis.org/review/r111215b.pdf (accessed 28 November 2022).

accounts."[25]

Turner: (Chairman, Financial Services Authority, UK, 2008-13): *"Banks do not, as too many textbooks still suggest, take deposits of existing money from savers and lend it out to borrowers: they create credit and money ex nihilo - extending a loan to the borrower and simultaneously crediting the borrower's money account. That creates, for the borrower and thus for real economy agents in total, a matching liability and asset, producing, at least initially, no increase in real net worth. But because the tenor of the loan is longer than the tenor of the deposit - because there is maturity transformation - an effective increase in nominal spending power has been created."*[26]

Bank of England: *"One common misconception is that banks act simply as intermediaries, lending out the deposits that savers place with them… rather than banks lending out deposits that are placed with them, the act of lending creates deposits — the reverse of the sequence typically described in textbooks… Whenever a bank makes a loan, it simultaneously creates a matching deposit in the borrower's bank account, thereby creating new money."*[27] so the Bank of England has come forward clearly in support of the credit creation theory

Bundesbank: *"Bank loans to non-banks are the most important money-creating transaction in terms of quantity…long-term observations have found that lending is the most significant factor propelling monetary growth."*[28]

3. Legal perspectives

In the previous section we established that banks are not financial intermediaries by putting forward irrefutable economic arguments and empirical evidence asserting that they *do in fact* create money (out of thin air) in reality. Now the legal doctrines that support and justify fractional reserve banking have not been founded on previously established legal precepts that gave rise to specific legal acts. Rather, they have been drafted and set *ex post facto.* It was crucial for the banks and their advocates to find sufficient legal grounds in order to preserve the network of vested interests that fractional-reserve banking generates "for them" overall.[29]

The acts of using depositors' money and/or issuing deposit receipts for greater amount than is actually deposited share a common trait with all other illegal acts of misappropriation, which have always been the focus of doctrinal analysis by criminal law specialists. Because of this, the similarities between the two sets of actions are so striking that theorists were unable to remain unmoved by this legal inconsistency. Unsurprisingly, great efforts have been made to justify what is utterly unjustifiable: to make it acceptable and legal from the perspective of general legal principles to misappropriate funds deposited for safekeeping and to issue 'unbacked' deposit receipts without having the corresponding deposited money in reserves. There are two main categories for doctrinal justifications for using a fractional reserve in a demand deposit (current account). The first group sought to resolve the conflict by characterizing the demand deposit as a loan, this has been extensively discussed and refuted based on Issues pertaining to the debtor-creditor relationship, the standard-form contract and the contractual discretionary power, the duplicate property titles and availability of funds, the distinguishable economic and legal purposes of the two contracts and the evidence found in the Islamic jurisprudence.[30] The second group of theorists recognize the fundamental distinctions between the loan and demand deposit contracts but concentrate their focus on their newly developed legal concept of "availability" and maintain that this notion must be interpreted "in a loose manner,"

---

[25] M. King, 'Speech to the South Wales Chamber of Commerce at the Millennium Centre', Cardiff, October 23rd, 2012.

[26] A. Turner, 'Credit, Money and Leverage', *Conference on: Towards a Sustainable Financial System*, Stockholm School of Economics, September 12th, 2013, p. 3, https://cdn.evbuc.com/eventlogos/67785745/turner.pdf (accessed 13 December 2022).

[27] Bank of England, 'Money creation in the modern economy', *Quarterly Bulletin*, Q1, 2014, https://www.bankofengland.co.uk/-/media/boe/files/quarterly-bulletin/2014/money-creation-in-the-modern-economy.pdf (accessed 13 December 2022).

[28] Bundesbank, 'The role of banks, non-banks and the central bank in the money creation process', Monthly Report 2017, https://www.bundesbank.de/resource/blob/654284/df66c4444d065a7f519e2ab0c476df58/mL/2017-04-money-creation-process-data. pdf (accessed 13 December 2022).

[29] J. Huerta de Soto, *op. cit*., p. 115.

[30] For more details see M. A. Benlala, 'A Scrutiny of The Demand Deposit (Current Account) through the Lenses of Law and Islamic Jurisprudence', *Law and World*, vol. 8, no. 4, December 2022, pp. 16-33, https://doi.org/10.36475/8.4.2.

which means that bankers should only be required to make their investments "in a prudent manner" and to always comply with regulations and bank legislation. The notion of availability being redefined is irrelevant and a mere leap into the unknown.[31] First, banks continue to treat deposits like loans and invest them in private business deals accordingly, while depositors continue to make deposits with the primary goal of transferring custody and safekeeping of their money while maintaining its full availability. In other words, the forced attempt to redefine the idea of availability did not make the legal logic's inconsistency any less apparent. Moreover, from the point of view of private law, the general guideline of a "prudent" use of resources combined with the "calculation of probabilities" is actually far from being sufficient to guarantee that fractional reserve banks will always be able to honor all repayment requests. Au contraire, it carelessly starts a process that, at least once every few years, inevitably leads to a loss of trust in banks and a massive, unforeseen withdrawal of deposits.[32] Availability has also been depicted as the compliance of the private banks with the entire structure of government banking legislation. However, this is another blatantly artificial requirement that aims to shift the unsolved problem with regards to legally defining the fractional-reserve bank deposit contract from the field of private law (where the demand deposit cannot be a loan) to the field of public law; namely the administrative law with its pure voluntarism by which the authorities can legalize any institution, no matter how legally outrageous and immoral it may be.

The fact that fractional-reserve banking has not been able to survive without a government created central bank, which would impose legal-tender regulations and force the acceptance of paper money with the aim to produce out of thin air the liquidity needed in emergencies, serves as conclusive evidence for everything stated above. Only an organization that complies with general legal principles can endure in the marketplace without the recourse to privileges and government support and funding, but only by virtue of individuals' voluntary use of its services.[33]

That is why, in his critique of the history of the government's management of money, Hayek points to the fact that today's banking structure may appear sustainable despite its juridical and legal inconsistency. This is because of the support it presently obtains from the government and an official central banking institution that produces the liquidity necessary to bail out banks in need (in return for their adherence to an intricate web of administrative law made up of countless, enigmatic, and ad hoc directives).[34]

Eventually, all prior attempts to formally justify fractional reserve banking with regards to demand deposits have been unsuccessful. This explains the constant ambiguity in doctrines regarding this type of bank contract, the vain attempts to avoid transparency and accountability in how it is handled, the general lack of accountability, and more importantly the support and backing it has received from a central bank that implements the rules and provides the liquidity required at all times to prevent the collapse of the entire system (since on its own, fractional reserve banking would perish and cannot possibly survive economically).[35] This blatant vulnerability of the entire banking system was the main underlying reason for the creation of central banks (with the principal role of providing the system with "liquidity" in times of need and distress). However, the central bank's "liquidity pool" only works for a while. After a while, commercial banks get used to the easy supply of money in dire situations and start losing fear of such situations. Consequently, they start issuing "unbacked" titles on an even larger scale. Obviously, this does not solve the problems of fractional reserve banking, it rather creates moral hazard and inflate those problems.[36] Even if bankers maintain a sufficiently high reserve ratio, a banking system based on the demand deposit with a fractional reserve causes bankers to go bankrupt and unable to uphold their commitment to return deposits on demand. History revealed[37] that this is precisely the reason the vast majority of private banks that did not fully

[31] J. Huerta de Soto, *op. cit*., p 117.
[32] Ibid, p. 151.
[33] Ibid, p. 152.
[34] F. A. Hayek, *The Fatal Conceit: The Errors of Socialism,* 1st edn, Routledge, 1990, pp. 103-104.
[35] J. Huerta de Soto, *op. cit*., p 118.
[36] J. G. Hulsmann, 'Banks Cannot Create Money', *The Independent Review,* vol. 5, no 1, Summer 2000, p. 105, https://www.independent.org/pdf/tir/tir_05_1_hulsman.pdf (accessed 17 December 2022).
[37] For details see J. Huerta de Soto, *op. cit*., p 69.

abide by the safekeeping obligation (full reserve banking) ultimately failed. This situation prevailed up until bankers demanded the establishment of a central bank.[38] Bankers use demand deposits to create bank deposits (money) and in turn, loans (purchasing power transferred to borrowers, whether businessmen or consumers) from nothing. The problem is that these deposits/loans are not the result of any real increase in voluntary saving by non-bank agents (individuals in the society).

In his empirical study, Werner discovered that the bank actually treats customer deposits as a loan to the bank, this act is legally unfounded. Ignoring the rule of *contra proferentem* and the fact that the demand deposit contract is a standard-form contract (contract of adhesion) when explaining the depositor-banker (bank-customer) relationship, the radically distinct and different purposes of the two contracts, the conundrums of duplicate property titles and the continuous full availability of the deposited sum of money to the depositary all point to the refutation of the loan theory.[39]

Consequently, there are always unavoidable negative social repercussions when traditional legal principles governing property rights are violated. For instance, although the return of deposits might be thus "guaranteed," at least theoretically (even when using a fractional reserve ratio if we assume that the central bank continuously lends its support), what cannot be guaranteed is that there won't be a significant change in the monetary units' purchasing power relative to the initial deposit. In fact, since the development of modern monetary systems, we have experienced severe chronic inflation that has significantly reduced the purchasing power of the monetary units returned to depositors, with only minor variations in severity from year to year. Furthermore, we have recurrently experienced the cyclical, successive phases of artificial booms and economic recessions marked by high unemployment rates that are inherently very detrimental to the orderly, steady growth of our societies. This proves the validity of Hayek's seminal theory that whenever a traditional rule of conduct is broken, whether through direct government compulsion, the granting of special governmental privileges to certain people/organizations, or a combination of both (as is the case with the monetary demand deposit under a fractional reserve), sooner or later harmful, unintended consequences follow, which essentially damage and disrupt the spontaneous social processes of cooperation. The 'traditional' legal rule of conduct broken in banking is that in the demand deposit contract, custody, safekeeping and continuous availability and access to funds can only take the form of a continuous 100% reserve requirement. Therefore, any use of this money, especially to make loans (whether directly under the fractional reserve theory or indirectly under the money/credit creation theory), constitutes a breach of this principle and an act of misappropriation. What seems obvious now is that bankers and authorities realized that by sacrificing and ditching traditional legal principles in the demand deposit they could reap the benefits of an extremely lucrative financial activity, in spite of the fact that a lender of last resort, or a central bank, was needed to provide the necessary liquidity in times of difficulty (history and experience showed that sooner or later, these times always returned). However, until the theory of money and capital theory made enough advancements in economics and were able to explain the cyclical emergence of economic cycles, the damaging social effects of this privilege granted only to bankers were not fully understood.[40]

From a legal 'contractual' and economic perspective, the Austrian School in particular has taught us that the contradictory goal of providing a contract made up of essentially incompatible elements and intended to combine the benefits of loans with those of the conventional monetary 'demand' deposit, which entails the withdrawal of funds at any time, is bound to result in unavoidable spontaneous adjustments sooner or later. The first signs of these adjustments are increases in the money supply (due to the creation of loans that do not actually correspond to actual increases in voluntary saving), inflation, a generalized misallocation of the limited productive resources available to society at the microeconomic level, and in the long run recession, the correction of errors and flaws in the productive system brought on by credit expansion, and endemic unemployment.[41]

When the theory of money was first formulated, theorists only acknowledged the immorality

[38] M. N. Rothbard, *The Case Against the Fed,* Ludwig Von Mises Institute, Auburn, AL., 2007, pp. 90-106.
[39] For further extensive analysis see M.A. Benlala, *op. cit. (The Characterization of the Demand Deposit...)*, pp, 643-648.
[40] J. Huerta de Soto, *op. cit.,* pp. 153-154.
[41] Ibid, 154-155.

of creating unbacked banknotes and the significant harm it results in. They initially failed to recognize or acknowledge the precise same effects of the massive creation of loans backed by deposits created out of nothing. This explains why the Peel Act of July 19, 1844, which served as the basis for all modern banking systems and forbade the issuance of unbacked bills, utterly failed to achieve its goals of monetary stability and a sufficient definition and defense of citizens' property rights with regards to banking. It failed because lawmakers were unable to grasp that bank deposits with a fractional reserve have the exact same effects (from an economic standpoint) and nature as unbacked banknotes. The long-standing practice of issuing unbacked "secondary" deposits was thus permitted to continue because the Act did not outlaw fractional reserve banking. The issuing of secondary deposits actually preceded the fiduciary issue of banknotes. However, only the latter was "very tardily" made illegal because the former turned out to be inherently ambiguous and complex. Although it has the exact same economic characteristics (nature) and negative effects as the issuance of unbacked banknotes outlawed in 1844 by the Peel Act, the monetary bank 'demand' deposit contract with a fractional reserve is still legal in today's all societies.[42] Moreover, in the UK for instance, the 'Client Money Rules' of the FCA, which are regarded as the cradle of financial regulations and modern banking, require all firms that hold client money (under CASS 7.4 Segregation of client money) to segregate such funds from the firm's own assets and liabilities by holding them in accounts that maintain their separation.

"Depositing client money CASS 7.4.1 R. A firm, on receiving any client money, must promptly place this money into one or more accounts opened with any of the following: (1) a central bank; (2) a CRD credit institution; (3) a bank authorised in a third country; (4) a qualifying money market fund."[43]

So, client deposits must be kept in segregated accounts with banks or money market funds for firms without a banking authorization. In other words, the firm's client assets, including those of non-bank financial intermediaries, continue to be off-balance sheet, and the depositor continues to be the actual legal owner. However, with a banking license things are completely different. Under the section "Depositaries" 1.4.6 Rule stipulates that the above mentioned client money chapter does not apply to a depositary acting as such. This is further explained in chapter 7: "*Chapter 7 Client Money Rules Credit Institutions and Approved Banks. 7.1.8 R The client money rules do not apply to a CRD credit institution in relation to deposits within the meaning of the CRD held by that institution. 7.1.9. G If a credit institution that holds money as a deposit with itself is subject to the requirement to disclose information before providing services, it should, in compliance with that obligation, notify the client that: (1) money held for that client in an account with the credit institution will be held by the firm as banker and not as trustee (or in Scotland as agent); and (2) as a result, the money will not be held in accordance with the client money rules.*"[44]

So, this exemption of banks from the Client Money Rules is what allows them to produce/create credit, and thus money. They are able to continue keeping customer deposits on their own balance sheet because of this exemption. In other words, once a depositor places money in a bank, he is no longer the actual owner of that money. Instead, he is considered one of the many banks creditors to whom it owes money. Additionally, it can create a new "customer deposit" that wasn't actually paid in but was instead reclassified as an account payable liability of the bank resulting from a loan contract.[45] The legal question that arises here is whether the Client Money Rules were intended for this use and whether this reclassification of general "accounts payable" items as specific liabilities designated as "customer deposits", without any actual depositing on the part of the customer "borrower" is a lawful and legitimate act.

There is this misconception that money titles and an increase in these titles is the same as

[42] Ibid, pp. 252-253.
[43] Financial Conduct Authority, Client asset sourcebook (CASS), FCA PRA handbook, 2013, http://fshandbook.info/FS/html/FCA/ (accessed 27 December 2022).
[44] Ibid.
[45] R. A. Werner, 'How do banks create money, and why can other firms not do the same? An explanation for the coexistence of lending and deposit-taking', *International Review of Financial Analysis*, vol. 36, December 2014, p. 75, https://doi.org/10.1016/j.irfa.2014.10.013.

money and an increase in money. However, unlike an increase in the amount of money (i.e. gold) or an increase in the number of titles to money backed by a corresponding increase in the amount of money, any increase in the volume of money titles without a corresponding increase in the amount of money entails simultaneous possession of the same amount of money by multiple people (holders of both types of titles - backed with money and unbacked), which is physically impossible. Every redemption of a fiduciary title, whether it is into money or another form of real property, involves an act of illicit appropriation because the amount of money is unchanged and all money that is currently in existence must be owned by someone (at that given moment of time). For the same reasons and in the same way that titles to cars are 'and should be' backed by cars, titles to money are 'and should be' backed by money. This is merely in accordance with the nature of property and property titles. Hence, a title to money backed by assets other than money is, in essence, a contradiction in terms. Its issuance and use represents an objective misrepresentation just like the issuance of a title to a car backed by assets other than a car (a bicycle, for instance). The reason deposit 'receipts' contracts cannot be made into debt and fractional reserve agreements are ethically unacceptable is because they go against (deny) the very nature of things. Therefore, any such contract is - a priori - invalid. More importantly, contracts acknowledge and transfer existing property rather than creating new property. The theory of property must therefore come first before discussing contracts, just like in Rothbard's ethical framework. Property and property theory are prerequisites for and constraints on contracts and contract theory, respectively. In other words, rather than the other way around, the range of possible (valid) contracts is constrained and limited by the quantity (stock) of property already in existence and the nature of things.[46]

A startling lack of understanding exists regarding the fact that a fractional reserve banking agreement implies no less of an impossibility and fraud than, for instance, the trade of squared circles. In fact, fractional reserve banking involves an even greater degree of impossibility. A necessary and categorical conclusion is that fractional reserve banking contracts are impossible. That is to say, it is implausible (praxeologically impossible) for a bank and its customer to decide to convert money substitutes (banknotes, demand deposit accounts - claims to present money in his account) into debts. Of course, they could assert or certify that they are debts, just as someone could assert that triangles are squares. But their claims would be demonstrably false. Money substitutes (titles to present money) would continue to be distinct from debt claims (titles to future goods 'not yet existing') and equity claims (titles to existing property other than money), just as triangles would continue to be triangles and differ from squares. Any other claim would be an objective misrepresentation of reality rather than a change of it.[47]

Going back to Werner's empirical study proving that banks, under fractional reserve banking, are not financial intermediaries, this illustration will clarify the legal misconduct and infringements involved in this process:

When depositing his money, instead of receiving a debt or equity title from the bank **B**, the money depositor **A** receives a claim to current 'available' funds. That is to say, **A** does not actually relinquish ownership of the money he deposited (as would have been the case with a debt or equity claim received from **B**). Now, while **B** treats **A**'s money deposit as a loan rather than a bailment (a demand deposit) and records it as an asset on its own balance sheet (which is offset by an equivalent amount of outstanding demand liabilities), **A** retains ownership and title to the money deposit (the sum of the money deposited). At first glance this might just seem like a meaningless accounting trick, but in reality, it involves lying and misrepresenting the real state of affairs. The financial accounts of both **A** and **B** count the same quantity of money simultaneously among their own assets making them financial impostors and despite being fraudulent, it would not be as significant if the legal misconduct stopped here. Because the moment **B** behaves as though the situation is exactly as it appears on his balance sheet - that is, as though the bank owns the money deposited and is only required to redeem outstanding (inherently larger than its reserves) money deposit receipts upon demand - then what was

[46] H. Hoppe, J. G. Hulsmann & W. Block, 'Against Fiduciary Media', *Quarterly Journal of Austrian Economics*, vol. 1, no. 1, 1998, p. 23, https://cdn.mises.org/qjae1_1_2.pdf (accessed 27 December 2022).
[47] Ibid, p. 26.

merely a misrepresentation becomes a misappropriation. Accordingly, If **B**, lends money in the form of issuing additional 'unbacked' money deposit receipts and lends these to some third party **C** (who is expected to repay principal and interest in the future), the bank commits unjustified appropriation because what **B** lends out to **C** - whether money or titles to money - is actually not its (**B**'s) own property but that of someone else (**A**'s). Fractional reserve banking is inherently fraudulent due to the fact that the title that was transferred from **B** to **C** concerns a property that **B** does not own in the first place. Contrary to mainstream belief, fraud or a breach of contract does not only occur when **B**, the fractional reserve bank, is actually unable to accommodate all redemption requests as they come in. Instead, each time **B** fulfils its obligations related to redemption, fraud is also committed. Because whenever **B** converts a fractionally covered banknote into money or when a note holder takes possession of property, it does so with money that belongs to someone else. For example, if **B** redeems **C**'s note into money, it does so with money that belongs to **A**, and if **A** wants his money too, **B** pays him with money that belongs to **D** … and it goes on and on. Therefore, proponents of fiduciary media and fractional reserve banking, would have to contend that there is no breach of contract if **B** is able to fulfil its obligations using the property (money) of another party. According to Rothbard's contract theory, people are only allowed to enter into agreements involving the transfer of their own property. Eventually, even when it is successfully implemented, fractional reserve banking involves contracts involving the transfer of other people's property by its very nature. In light of this, the title-transfer theory of contract is fundamentally (inherently) incompatible with the issue of fiduciary media.[48]

Fractional reserve banking was regarded as fraud by Murray Rothbard as a result of his thorough study of property rights theory and ethics over a long period of time. A number of fundamental misconceptions and issues plague proponents of money creation under fractional reserve banking, including confusion about the difference between property and property titles, the impossibility of something (property) having multiple owners at once, the logical precedence of property and property theory over contract and contract theory, and the requirement of fulfilling contractual obligations with owned property and not with someone else's property. Voluntary agreements do not define nor make for a valid contract. Legally valid contracts are agreements about the transfer of real property; as a result, the range of legal contracts is actually restricted first and foremost by the nature of things and property, and only then by agreement. Hoppe eloquently explained: "*Freedom of contract does not imply that every mutually advantageous contract should be permitted.... Freedom of contract means Instead that A and B (B and C in the above example) should be allowed to make any contract whatsoever regarding their own properties, yet fractional reserve banking involves the making of contracts regarding the property of third parties.*"[49]

The problem with conflating money - property and money substitutes (banknotes) - that is, property titles, is that changes in the supply or demand of one has different consequences to the other. Proponents of money creation/production under fractional reserve banking argue that fiduciary titles to money (titles backed by assets other than money) are money so following the same logic (as an illustration) they should say that fiduciary titles to cars (titles backed by assets other than cars) are cars!! For the sake of the argument (example) we are willing to dismiss the previous illogic, I want to discuss the impact of how changes in the supply or demand for cars differs from changes brought about by changes in the supply or demand for titles to non-existing (unchanged) quantities of cars on car owner's wealth position. In the first scenario, if the price of cars decreases as a result of a greater supply, all current car owners continue to be in possession of the same amount of property (cars) without any changes. Nobody's physical property is reduced. Likewise, the physical quantity of cars owned by any current owner is unaffected if the price drops as a result of buyers offering only smaller quantities of other goods in exchange for cars. In stark contrast, in the second scenario, there is a quantitative reduction of some current owners' physical property as a result of the issuance and sale of additional titles to an unchanged number or quantity of cars. It does more than just affect the value: the purchasing power of car titles will drop. The issuer and seller of fiduciary car titles misappropriate

[48] Ibid, p. 27.
[49] H. Hoppe, 'How is Fiat Money Possible? or, the Devolution of Money and Credit', *Review of Austrian Economics*, vol. 7, no. 2, 1994, p. 70.

cars of other people in the process. So, it does have a tangible physical impact. In exchange for an empty property title, the issuer/seller of fiduciary titles takes possession of other people's property without giving up any of his own.[50] In short, banks can only transfer or redistribute existing property from one person to another when they issue fiduciary notes because no contract can possibly increase the amount of property already in existence. That is why every time they purchase a piece of existing property in exchange for the titles to a piece of non-existing property, the bank and its client (borrower) are committing an act of fraudulent appropriation because they have agreed to falsely represent themselves as the owners of a quantity of property that neither of them owns and clearly does not exist.

Therefore, whether using the lens of the title transfer theory of contract or the principle of freedom of contract, the conclusion is the same; the issuing of fiduciary media in fractional reserve banking is ethically unjustified.

Because of the nature of fiduciary media (as titles to non-existing quantities of money property or titles to money covered by things other than money) fractional reserve banking can only result in ongoing income and wealth redistribution. Real wealth (property) is transferred and redistributed in favor of the issuing bank and the initial and early recipients and sellers of this 'fiduciary' money, and at the expense of its late or never receivers and sellers, as the unbacked money substitutes circulate from the issuing bank and its borrower clientele outward through the economy and in so doing inevitably raise the price of gradually more and more goods. Rothbard explains that the new money's initial recipients profit the most, the subsequent recipients profit slightly less, etc. until the halfway point, at which each receiver starts to lose more and more as he waits for the new money. For the first individuals, initially, selling prices soar while buying prices essentially remain the same (to a great extent); however, after a while, buying prices increase while selling prices remain unchanged.[51]

Moreover, money creation/production under fractional reserve banking contradicts Say's law: no one can demand something without supplying something else, and no one can demand or supply more of one thing (good) without also reducing their demand or supply of another good. All goods (any kind of property) are acquired and bought with other goods. This does not apply to the supply and demand of fiduciary notes. Without the demander requesting less of anything else or the supplier providing less of anything else, the increased demand for money is met. Wishes, not actual demand, are satisfied through the issuance and sale of fiduciary media. Consequently, without supplying other property in exchange, property is appropriated (demanded and satisfied). As a result, what is happening here is an act of wrongful appropriation rather than a market exchange (which is governed by Say's law). This is why, following the lead of Rothbard, Hoppe had criticized the Keynesian view regarding the relationship between the demand for money and savings (actual loanable funds) by pointing out that: "*Not-spending money is to purchase neither consumer goods nor investment goods.... Individuals may employ their monetary assets in one of three ways: they can spend them on consumer goods; they can spend them on investment, or they can keep them in the form of cash. There are no other alternatives.... The consumption and investment proportion, that Is, the decision of how much to spend on consumption and how much on investment, is determined by a person's time preference, that is, the degree to which he prefers present consumption over future consumption. On the other hand, the source of his demand for cash is the utility attached to money, that is, the personal satisfaction derived from money in allowing him immediate purchases of directly or indirectly serviceable consumer or producer goods at uncertain future dates. Accordingly, if the demand for money increases while the social stock of money is given, this additional demand can only be satisfied by bidding down the money prices of non-money goods. The purchasing power of money will increase. The real value of individual cash balances will be raised, and at a higher purchasing power per unit money, the demand for and the supply of money will once again be equilibrated. The relative price of money versus non-money will have changed. But unless time preference is assumed to have changed at the same time, rear consumption and real investment will remain the same as before: the*

[50] H. Hoppe, J. G. Hulsmann & W. Block, *op. cit.*, p. 30.
[51] M. N. Rothbard, *Man, Economy, and State,* Ludwig Von Mises Institute, Auburn, AL., 1993, p. 851.

additional money demand is satisfied by reducing nominal consumption and investment spending in accordance with the same preexisting consumption and investment proportion, driving the money prices of both consumer as well as producer goods down, and leaving real consumption and investment at precisely their old levels."[52]

So, Hoppe concluded that accommodating an increased demand for money by issuing fiduciary credit is utterly unjustifiable.

Now let's focus on inflation, debasement was the common type of inflation prior to the advent of banking. Debasement is a unique method of modifying precious metal coins. When a coin is debased, one of two things can happen: (a) the fine metal content is decreased without the imprint changing, or (b) a higher nominal value is imprinted on the coin. Its absence in more recent times can only be explained by the fact that modern debasement perpetrators could rely on the significantly more effective inflationary techniques of fractional-reserve banking and paper money.[53] Now if titles to money (unbacked by real money), which are basically false money certificates, were the same as real money, there would be no need for governments to 'legalize' them by declaring these fractional reserve banknotes (debased coins) to be a means of payment that must be legally accepted at par by every creditor.[54] These money certificates (and created bank deposit money) are subject to legal tender laws, which establish a legal equivalence between the certificates and the underlying money as well as a requirement that creditors accept the certificates up to their full nominal value. As a result, legal tender laws frequently lead to social unrest and economic inequality. So, the combination of legalizing false money certificates and granting exclusive monopolistic privileges (of creating money out of thin air) to fractional reserve banks is essentially enforced, reinforced and protected by legal tender laws.[55] This Legal-tender protection for fractional-reserve banking results in a downward spiral. Every single banker has a reason (incentive) to minimize his reserves while maximizing (inflating) the amount of notes he issues. Now the technical superiority of this form of fiat inflation is what has led governments to stop debasing their currency and start working with fractional-reserve banks. It made it possible for governments to raise additional funds that they were unable to get through taxation of their citizens, while also keeping their other sources of revenue intact and their creditors happy, and without getting their countries in trouble with the international division of labor or having to completely eliminate competition in the banking industry. From the government's perspective, these were remarkable benefits. The situation appeared somewhat less appealing from the perspective of the average citizen. The result is too many resources were sucked from the rest of the economy by the inflation of banknotes just like it would have been the case with debasement, if not more. Additionally, it established a long-term alliance between governments and banks. The inflationary effects of legal tender laws are greatly exacerbated by fractional reserve banking. Legal tender regulations, on the other hand, are a blessing (advantageous) for fractional-reserve banking. It has to be noted that the same argument goes for both money creation theories discussed in the previous section of this article (Werner's empirical study findings); fractional reserve theory and credit creation theory. Therefore, very similar considerations come into play when legal tender privileges are granted to credit money with its inherent default risk. When market participants accept it by law in lieu of natural money, the operation of the market process is perverted and a race to the bottom sets in. Like all forms of inflation, fractional-reserve banking and credit money supported by legal-tender privileges result in an illegitimate redistribution of income. Since it produces significantly more inflation than any other institutional setup, the quantitative impact can be very large. Inflation-profiting fractional reserve banks have a strong economic incentive to extend their note issues, which increases the likelihood of the redemption failure. Even if a banker is generally prudent himself, the competition from other bankers forces him to increase the number of notes he is issuing in order to avoid losing market share to these rivals. Thus, the situation arises where the amount of money needed for redemption exceeds the amount of money in the bank vaults. These

[52] H. Hoppe, *op. cit.*, pp. 72-73.
[53] J. G. Hulsmann, *op. cit. (The Ethics of Money Production),* pp. 89-90.
[54] Ibid, p. 109.
[55] Ibid. p. 131-132.

demands are beyond the bank's capacity. It declares bankruptcy. Due to the numerous connections that exist between banks and other companies, the failure of one bank would probably result in the collapse of the entire fractional-reserve banking sector. Throughout the history of fractional-reserve banking, this has frequently been the case.[56] The problem is when fractional reserve banks make their banknotes and credit money available through the credit market**,** credit-seeking entrepreneurs are unaware that inflation, not additional savings, is the source of the additional credit they are taking, and this in turn makes the interest rate likely to be lower than it would be in an equilibrium market**.** And since the interest rate is a key factor in determining the prospects of business projects, there are suddenly a lot more investment projects that appear to be profitable even though they are not (in reality). Consequently, when entrepreneurs and business owners begin making large-scale investments in these projects, a crisis is pre-programmed and bound to occur. The completion of these projects would require resources, which are simply nonexistent. Only in the minds of business owners and entrepreneurs who have mistaken more credit for more savings do these required resources exist. Additionally, a sizable portion of the resources that are actually available are actually being wasted on unachievable projects. There are not only transitory short-term interruptions of production when the crisis first sets in. Instead, a lot of projects must be completely abandoned, and the resources and time invested in them are most likely lost forever.[57]

The other fundamental problem of fractional-reserve and credit money is redemption. The issuer will be unable to comply if enough customers choose to demand redemption at the same time. He declares bankruptcy. It is understandable, from the viewpoint of a bankrupt person and his business partners, to consider bankruptcy a negative occurrence that should be prevented if possible. However, from a larger social viewpoint, bankruptcy is actually beneficial as it fulfills a crucial social necessity for preserving the available stock of capital. From my previous analysis and discussion, banks bankruptcy might result from fraud, insolvency or illiquidity. In each scenario, bankruptcy is justified and beneficial from a socio-legal and economic perspective. **A)** Fraud: the distinguishing trait of a fraudulent company is that it never intended to generate income or revenue from actual products or production. It was only interested in channeling the money from lured investors (and the public/society) into its own pockets. The investors and the public have clearly suffered harm. However, because such fraud depletes capital without replenishing it, it also has a negative social impact by dwindling productivity of human labor and future wages. A prime example of this is fraudulent fractional reserve banking. Its natural death is bankruptcy, which should be followed by criminal prosecution of the banker. **B)** Insolvency: an insolvent company unintentionally uses more resources than it generates. Even though it benefits some stakeholders of the insolvent company in the short term, such as employees and suppliers, it also impoverishes society. An insolvent company can only continue to operate for any length of time if it has access to another entity's capital. This person is typically the owner, though occasionally it may also be the creditors. The insolvent company comes to a halt as soon as these people refuse to contribute more money to it. The machines and other capital goods are sold to other firms for less than their initial, actual book value, and the fired employees go on to work for other companies at lower pay rates. This is bankruptcy. It eliminates wasteful, and consequently socially undesirable, firms and forces their stakeholders - laborers and investors - to allocate their financial and material resources to other businesses that offer lower rewards but greater output. **C)** Illiquidity: in contrast to an insolvent company, an illiquid company does not experience a fundamental mismatch between sales proceeds and cost expenditure. A temporary financial mismanagement issue is "just" the issue. Legalized fractional reserve banking is a prime example. A temporary mismatch between payments and receipts is what banks put forward when faced with large scale redemption demands (for example, during a run). If given time (days, weeks, months), they could sell their assets for cash and thus comply with the redemption demands. First of all, it is typically impossible for fractional-reserve banks to sell their assets at book value in a reasonable amount of time, especially if the run doesn't just affect their bank but also spreads to

[56] Ibid, p. 138-140.
[57] Ibid, p. 141.

other banks. The money prices of all assets plummet more or less sharply below their book values during an economy-wide run, which historically has been a common phenomenon. Then, no bank can sell its assets for book value. As a result, the whole (artificial) distinction between insolvency and illiquidity disappears. And even if we assume for the sake of the argument that the bank's assets could be sold in a relatively reasonable amount of time at or above book value, the economic case for the strict application of bankruptcy law is still valid. Therefore, at the very least, the banker must be viewed as a bad manager of his clients' funds, and the purpose of bankruptcy would be to remove him from a position of authority for which he is obviously unqualified. So rather than encouraging and promoting qualified bankers and banking, exempting fractional reserve banking from bankruptcy law does exactly the opposite. Worse than that, legislators have frequently allowed fractional reserve banks to suspend payments. However, "suspended payments" is a rather blatant euphemism, as is the case so frequently in politics. Although it seems kind and open-handed, the truth is very different. In reality, the government no longer enforces payments promised to creditors by the privileged banks, but it still does so for payments that these banks collect from their debtors. In one breath, the bank that halts payments takes the incongruous position of insisting on receiving payments in fulfillment of its contractual rights while simultaneously rejecting the same principle by refusing to make payments in fulfillment of its contractual obligations. Moral hazard is evident if a bank can rely on the government to approve suspension of payments. There is less of a need for the bank to exercise caution and maintain high reserves. Customers of the bank will be encouraged to borrow money from a bank because they will know that the bank has the government's approval and blessing. More bankruptcies occur as a result.[58]

As a result of their ability to create additional bank credit at almost no cost, fractional reserve banks are able to offer credit at rates that are lower than those that would have otherwise been the norm. This allows the beneficiaries to finance through debts some ventures and projects that they otherwise would have funded with their own money or that they would not have begun at all. The impact of paper money is similar, but with greater effects. Credit can be extended by a producer of paper money to almost any degree and under almost any conditions. Since 2008, the U.S. federal reserve bank along with other central banks around the world have provided credit at almost zero percent. In some cases, as for the Bank of Japan, credit was provided at no interest, and in some instances they even paid people for borrowing its credit. Business is more reliant on banks as a result of fiat inflation. In comparison to a free market, credit creation inflation establishes a higher hierarchy and more centralized power. An entrepreneur is no longer considered to be an entrepreneur if they operate with 90% debt and 10% equity. Truly, the true entrepreneurs who make all crucial decisions are his creditors, who are typically bankers. He is merely a manager or more or less a well-paid executive. The presence of central banks and paper money bailouts make debt-based financial strategies more attractive than strategies based on prior savings. Thus, fiat and credit creation inflation is detrimental to genuine prosperity because it reduces the number of genuine entrepreneurs (independent individuals who run their own businesses using their own funds). There are still a startlingly large number of these individuals, they can continue to exist and prosper thanks to their superior talents that match the subpar financial conditions that they must contend with. Compared to their rivals, they must be more inventive and diligent. They are willing to pay whatever it takes to maintain their independence. Unlike their competitors (bankers' puppets), they typically have a stronger sense of loyalty to the family business and much more concern and care for their employees.[59]

Let me just stress at this point that money hoarding has no detrimental macroeconomic effects. Without a doubt, it does not discourage commercial investment. Hoarding makes money more valuable, increasing the "weight" of the currency units that are still in use. With these remaining units, any purchases of goods and services as well as any financially sound investments can be made. Fundamentally, there are no new resources created by inflation. It simply changes how the existing

[58] Ibid, p. 153-157.
[59] Ibid, p. 180-181.

resources (already available) are distributed and allocated. They deprive companies that are run by entrepreneurs who operate with their own money from these resources in order to grant them to business executives who run companies financed with credit. This is why banks can act (grant credit) as financial intermediaries only in a natural system of money production. This means that they would only be able to lend out those sums of money that they had either saved themselves or had been saved by people and lent to them.

4. Religious perspectives

The efficiency of the monetary system, the implementation of legal rulings on money and the manifestation of its desirable effects in economic life is not dependent on precious metal coins (both historically effective and preferable), or any other historical form, but is dependent on a trustworthy and efficient Islamic monetary authority that implements the rulings of God Almighty regarding money, and works towards achieving proportionality between the money in circulation (supply) and the commodity supply, in order to ensure the constant stability of the value of the monetary unit. Only then will the appropriate legal and economic climate be available, not only for efficient satisfactory dealings, but also for efficiency in all aspects of economic activity.

There is no doubt that money is a social mediator associated with the economy's aspect of exchange, as it is a tool adopted by the human society (community) to get out of the barter system that shackled exchange operations with its well-known restrictions. This tool, like other tools, is known for its functions that it performs, and for which it came into existence. It has neither a definite nature nor a self-contained essence. In this regard, the opinions of Muslim scholars confirm this instrumental view of money. Ibn Rushd says: "*What is meant by them-meaning their purpose or role-(gold and silver) first is transaction, not benefit*,"[60] And Ibn Abidin says: "*Know that each of the two coins* (gold and silver) *is always money* (price '*Thaman*' in Arabic)." Also "*the 'thaman' is not what is sought, but rather a means to the intended (sought) goal (the commodities bought by these moneys - thaman) …With this, the "thaman" (money) has become like the tools of the craftsmen*."[61] Sheikh Al-Islam Ibn Taymiyyah confirms this instrumental concept by saying: "*... it is a means for dealing with it, and that is why it was a 'thaman' (money) ... and the purpose is achieved through this pure means regardless of its material nor its form*"[62] However, when detailing the functions of money, Al-Ghazali adds: *"... all sorts of assets are estimated with it, and it is said that this camel is equal to one hundred dinars and this amount of saffron is equal to one hundred dinars, so since they are both equal to one thing they are indeed equal to one another..."*[63] And Ibn Rushd says: *"... when it became difficult to comprehend and establish the equality in things of different entities, the dinar and the dirham were made to evaluate them: I mean to estimate (appraise) them."*[64] Ibn Taymiyyah endorses this by saying: *"... the meaning of moneys (Athman-plural of thaman in Arabic) is to be a standard appraising tool for all valuable things (i.e. assets or properties), by means of which one can know the value of things (price)."*[65] So it is a tool for the purposes of social evaluation, and its first basic function is to measure values.

The second main function of money is represented in facilitating exchange through its mediation in exchange operations. The concurrence of desires in time and subject matter for all participants is an impossibility, and it greatly reduces the chances of exchange. Therefore, the need is great for something that represents all values, and it is easy take the form of any of them when

[60] Ibn Rushd, *Bidayat al-moujtahid wa nihayat al-moqtassid*, Dar al-khilafa al-aliya, matbaa't Ahmad Kamel, Istanbul, 1915, vol. 1, p. 231.
[61] A. Al-Sabhany, 'Al-noqood Al-Islamiya qama yanbaghi an taqoon: Money as it should be in an Islamic System', *king Abdul-Aziz University journal of Islamic economics*, 1998, vol. 10, p. 5, 1998, https://al-sabhany.com/images/Pdf/Money_as_it_Should_Be_in_an_Islamic_System.pdf (accessed 12 November 2022).
[62] Ibn Taymiyyah, *Majmoo' Al-fatawa*, *tajmii' abderrahman al-najdi al-hanbali*, 1st edn, Matabii' Arriyadh, Arriyadh, 1962, vol. 19, pp. 251-252.
[63] A. Al-Ghazaly, *Ihya' O'loom Eddin*, 1st edn, Dar Al-fikr, Beirut, 1975, vol.4:12, p. 2227.
[64] Ibn Rushd, *op. cit.*, vol. 2, p. 109.
[65] Ibn Taymiyyah, *op. cit.,* vol. 29, p. 471.

needed. This is perfect liquidity, by which money excels over all other real and financial assets, and this is what Al-Ghazali pointed to by saying: *"...Another reason is to seek the acquiring of all different things through them (moneys: gold and silver)... So, whoever owns them is like one who owns everything, not like one who owns a garment, for he only owns the garment. If he needed food, the owner of the food might not want the garment, because he needs a horse for example ... and it is a means to acquire everything needed."*[66]

The other function of money is to pay off debts, i.e. being a means of deferred payment. This function is contingent on people's acceptance of money as compensation for the rights they have as debts with others, even if this compensation is deferred. People's acceptance of money for this purpose is based on considering and testing the ability of money to preserve (and protect) their rights (store values) and its ability to convert into anything they desire without trouble (perfect liquidity). And because Islamic 'Sharia' law preserves (money, property and such) for its owner, it requires that damaged property (assets, goods and such) be compensated with an equal amount by the wrongdoer. But this person may not find similar property (assets, goods and such) to replace the damaged one, so the law decides to compensate by value, i.e. with its value in money. For this reason, money is: "*sales' (things for sale) prices and damaged things' values*."

This is why there is consensus between The schools of Islamic jurisprudence 'fiqh', which are generally unanimous, with regards to considering "gold and silver are money by creation" although there is a difference of opinion between these schools regarding whether or not to consider other means of exchange money 'thaman'. Ibn Khaldun says: *"Gold and silver are valuable for each holder."*[67] Al-Ghazali says: *"God Almighty created the dinars (gold) and dirhams (silver) as intermediate rulers between all other assets (properties and such)."*[68] And Ibn Rushd reports on the authority of the two imams Malik and Al-Shafi'i that gold and silver are allocated certain 'exclusive' rulings, *"as they are the heads of all moneys 'athman' and the values of damages."*[69]

So, Gold and silver, in whatever form they exist, are "*money by creation*" but their forms are not at the same level of efficiency to accomplish the tasks of exchange. Money in the form of minted coins (their weight and purity are known) is better than other forms which would force dealers to inquire about its weight and purity. Ibn Khaldun says: *"With it, i.e. by the minting, coins' purity is distinguished when dealing in transactions, and people are guaranteed the money's authenticity and protection from fraud by the seal of the authority/ruler 'sultan' on it."*[70] This is why the emergence of Dar al-Sikkah 'Mint facility' was a necessary institutional condition for the major monetary reform movement, during the reign of Abd al-Malik ibn Marwan. It was one of the requirements for economic independence, and a condition for the implementation of the Sharia policy of the Islamic state; the monetary system was completely (Islamized). Since then, talk about money and the right to issue it has become confined to the state, as one of its most prominent economic functions.

Let us explore the debasement issue now, the Holy Qur'an exposed the people of Shuaib 'peace be upon him' because they used to debase their money, by cutting them from the edges, and this diminished their weight. They believed that they were at liberty of doing that, and that neither God nor the community had control of its most prominent, vital and dangerous institutions: *"They said, O Shuaib, your prayers order you to abandon what our fathers worshiped or to do with our money whatever we want" (11:87)* Al-Tabari commented in his interpretation that he forbade them from cutting dinars and dirhams, so they said, opposing him, this it is our money and we do whatever we want with it. If we want, we cut it, if we want, we burn it, and if we want, we throw it away. Al-Shawkani narrated on the authority of Ibn Surayj that people used to cut the edges of dirhams and dinars with scissors... and collect the cut edges to make much more money by foundry, as is customary in the Levantine kingdom and elsewhere. They said - do you prohibit us from doing with our money, meaning - dirhams and dinars - whatever we want (from edge cutting and foundry), and yet they did

[66] A. Al-Ghazaly, *op. cit.*, p. 2227-2228.
[67] Ibn Khaldun, *Moqadimat Ibn Khaldun*, 1st ed., Dar al-qalam, Beirut, 1978, p. 381.
[68] A. Al-Ghazaly, *op. cit.*, p. 2227-2228.
[69] Ibn Rushd, *op. cit.*, vol. 2, p. 109.
[70] Ibn Khaldun, *op. cit.,* p. 261.

not obey him, so the shout (God's punishment) seized them.[71] Therefore, limiting the right to mint currency to the state (the ruler) guarantees the safety of the currency from fraud, that is why the Islamic jurisprudence scholars decided that it is reprehensible to mint counterfeited dirhams even by the state (the ruler) according to the authentic hadith in Sahih Muslim (43): *"... whoever cheats (defrauds or deceives) us is not one of us." (Book 1, Hadith 190)* Also in this context, Ibn Taymiyyah attacked the people of chemistry, and stressed the state's responsibility to monitor and keep a close eye on them because they can defraud (falsify) money by means that no one else can.[72] He (and others)[73] even put great emphasis on the oversight of the social body over the executive authority by pointing out that the ruler 'imam' does not have the right to change the conventional money that is popular among the people, because that leads to unjustly consuming (depleting) their money, just like it is not permissible for any of the citizens to issue money because it is considered an transgression against the ruler 'Sultan'.

The truth is that the state's responsibility for issuing and managing the currency, even if it is not supported by an unequivocal religious text, is a matter of the interests sought by the religion 'Almassaleh Almorsala' in which the state is never indispensable. Ibn Khaldun said about issuing money: *"It is a necessary function (role) for the king."* Al-Nawawi said about it in (Al-Majmoo') that it is *"the matter of the imam 'the ruler'"*[74] And Imam Ahmed said in the narration of Jaafar bin Muhammad: *"It is not appropriate to mint dirhams except in the house of minting with the permission of the Sultan, because if people were permitted to do so, they would use bones."*[75]

Hence, if this is the case with metal money (coins) that has both commodity and monetary value, how (blatantly) worse is the case with paper money that has no intrinsic value at all (it has only a symbolic value)? And who is more fraudulent (and dangerous); the one who cuts from the edges of the metal dirhams and dinars or the one who cuts (depletes) the value of the paper dirhams and dinars?! Indeed, is there a greater and worse offense than jurisprudentially delegating and authorizing commercial banks to create money by conferring legitimacy on their generation of deposit money?

Since money is a tool intended for its functions and not for anything else, it is its efficiency that achieves its monetary essence, and not its material form or any other consideration. The efficiency of money means performing its functions in the best manner, for this is the correct test criterion. So, the primary function of money is to measure value. Regardless of any intellectual content dealt with by the theory of value in defining its essence, value finds a critical expression for it in the market. With money, the values of commodities that are the subject of exchange are indicated through what is known as prices. So, money is the facilitating ruler by which we can measure the members of the society's evaluation of disparate and diverse commodities. In the language of Imam Al-Ghazali, it is the means by which the ranks are determined, the ranks of the commodities subject to exchange. In the language of Sheikh Al-Islam Ibn Taymiyyah, it is the measure by which one knows the values of commodities and such. What is required logically in every measuring tool, in order to achieve its purpose and essence, is constancy and stability (it neither increases nor decreases). For example, the meter is an abstract unit for measuring lengths that does not require a specific material nature, but it is required that it be (meter) in measurement, neither more nor less, and it is required that it be stable. The same can be said about units of weight. Thus, the monetary unit must be of a stable and fixed value so that you can measure the values, just as the meter is required to be of a fixed length. Of course, it would be absurd to measure lengths with a meter that becomes shorter at times and lengthens at others, and this tampering is obviously worse when we measure values in unstable (variable and irregular) monetary units. In money, gold and silver and money backed by them were used as a true measure of exchange and measurement of values since ancient times until the collapse of the Bretton Woods system in 1971. Gold and silver are distinguished by their stability

---

[71] Ashawqany, *Nayel al-awtar: sharh montaqa al-akhbar*, shariqat babby al-halaby, Cairo, n.d., vol. 5, p. 252.
[72] Ibn Taymiyyah*, op. cit.,* vol. 29, pp. 371-391.
[73] For more details see Ibn Taymiyyah, *op. cit.,* vol. 29, pp. 469, and Annawawy, *Al-majmoo*, al-maqtaba assalafiya, Al-madina Al-monawara, n.d., vol. 6, p. 10.
[74] Annawawy, *op. cit.*, p. 11.
[75] Abou Yaa'la Al-qadhi, *Al-ahqam assoltaniya*, 2nd edn, maqtaba al-I'lam al-Islamy, Beirut, 1986, p. 181.

and consistency with other material measures of values in the economy. It should also be noted that the coins of the Islamic civilization were represented in the golden dinar and the silver dirham until 1924 AD, the date of the collapse of the Ottoman Empire. The problem exacerbates when the processes of measuring values extend for different periods of time, then there is no logical possibility to accept such a measure because it refers to changing positions of commodities in the social estimation, and it also violates the mutual rights and/or obligations between the members of the society, as it tampers with what some owe to others (diminishes or increases). This is blatant iniquity and consuming people's money unjustly, and it is against to the logic of justice, which is confirmed by Sharia in all transactions. *"O you who have believed, do not consume one another's wealth unjustly but only [in lawful] business by mutual consent. And do not kill yourselves [or one another]. Indeed, Allah is to you ever Merciful." (4:29)*, so Allah prohibits His believing servants from illegally acquiring (or consuming) each other's property using various dishonest methods such as usury, gambling and other wicked methods that appear to be legal. Because of the created money in circulation in the economy, the fraud, with regards to measuring value and effort, is at a large scale resulting in widespread harm in society. This harm contradicts the hadith of the Prophet Mohammed peace be upon him: *"There should be neither harm nor reciprocating harm." (2340: Ibn Majah)*

Therefore, the measuring tool must be stable and fixed if it is to be an honest measure. In this sense, Ibn al-Qayyim's affirmations are very insightful and significant regarding the necessity of fixing the 'measuring' value of money as an urgent legal and positive requirement. He says: *"... Dirhams and dinars are the prices of sales (commodities and such), and the money 'thaman' is the measuring tool by which the value of 'amwal' (commodities, assets and such) is known, so it must be accurate and regular (well-tuned and exact), not rising nor decreasing, because if the 'monetary unit/thaman' rose and decreased like commodities, we would not have a money 'thaman' with which to evaluate sales. People's need for a money with which they can measure and evaluate sales (commodities and such) is simply a necessary and general need... And that can only be achieved with a money with which things are evaluated and stable itself in one position (value), and this money should not be evaluated by anything else, which would turn it into a commodity that rises and falls, so people's dealings become corrupted, disputes arise, and the harm becomes intolerable and severe... And if you made one single money 'thaman' that does not increase or decrease... the matter would be appeased and people's affairs rehabilitated in prosperity..."*[76]

In short, an unstable money (unit of measure) would inevitably harm the interests of society, violate the rule of private ownership protected by Sharia, concentrate wealth in the hands of the few (which is contrary to the purposes of Sharia), harm the interests of low (and fixed) income class of the society and small property owners and 'ultimately' negatively influence the behavior of individuals.

Unfortunately, the issue of the validity of deals using a variable value money has not been taken seriously by Islamic scholars knowledgeable in modern economics. Scholars and Islamic jurists have decided that it is not permissible to sell using an unstable (irregular or un-tuned) measure. It says in the Encyclopedia of Fiqh: *"As for selling using an unstable (irregular or un-tuned) measure, if it widens (increases) and narrows (decreases), it is not permissible."*[77] Yet little is indicated of the measure of value, and of the necessity of its stability and fine tuning.

The other functions of money and the efficiency of their achievement are based on the same fact: that money must be of a stable (fixed) value. In order for money to be a sufficient and efficient medium of exchange; the one who exchanges his commodity in return for money should not worry about the value of this money in his hand, and he should not feel defrauded and deceived (somehow insolvent) when he enters into another deal (exchange) to buy from a third party the commodity he needs. This trust in money, that it will get you (acquire through it) other things easily and without loss, is a primordial condition for its good and efficient performance. The problem clearly exacerbates also when the timeline extends in the future (in the long run) and the gap widens between the time of

[76] Ibn Al-Qayyim Al-Jawziya, *I'lam al-mowaqii'in a'n rab al-a'lamin*, dar al-jabal, Beirut, 1973, vol. 2, p. 156.
[77] Al-Maoussoua Al-Fiqheya, vol. 9, 2nd edn, The Ministry of Awqaf and Islamic Affairs in Kuwait, 1983, p. 17.

sale and the time of subsequent future purchase. Here the discussion shifts to another function of money, which is the function of storing value. There is no doubt that money is wanted because it is a means to other objects of exchange, and that the individual keeps it because he believes that it can be formed into (turned into), when he wants, any commodity he desires. For this reason, he saves or stores the values he possesses in the form of money. In order for this money to be a container for what is deposited in it, it must be of a fixed value. When an individual sells a sheep and keeps its price for a later time, it is necessary for this price to be able to buy such a sheep or what was equivalent at the time of sale, otherwise he will prefer to keep his sheep until he needs another commodity. However, while the owner of the sheep can postpone selling it until needed, the fisherman or the tomato producer cannot do that easily so they will resort to accepting hard-earned money to preserve the value of their products. But the decrease in the value of money means that their efforts will also be eroded (under-appreciated or under-paid) when they exchange them for money which is constantly decreasing in value, and this is a flagrant violation of the role of money and its functions. The Islamic financial system relies on the rule of justice and relative stability in value as a basis for exchange. Justice and honesty in all human transactions require a relative balance and stability between the value of money and the equivalent supply, and this principle is consistent with the Qur'anic text: "*And to the people of Midian We sent their brother Shu'aib. He said, "O my people! Worship Allah—you have no other god except Him. A clear proof has already come to you from your Lord. So give just measure and weight, do not defraud people of their property, nor spread corruption in the land after it has been set in order. This is for your own good, if you are ˹truly˺ believers." (7:85).* This verse means, in its first part, that no one has the right to depreciate the property or effort of others, either by measure or weight, and as a result, the measure of value must have value. This is what the Islamic Sharia stipulates, so for the exchange to be legal, value must be exchanged for value, and any violation of this principle is considered fraud according to the noble verse, and accordingly the "computer inputs/digits" created by the fractional reserve system are in violation of Sharia. Therefore, it is forbidden, because it is used as a measure of value without containing any intrinsic value. Similar teachings and commands can be found in passages from the bible (Old Testament): *"Do not act dishonestly in using measures of length or weight or capacity... You shall have a true scale and true weights, an honest ephah and an honest hin. I, the LORD, am your God, who brought you out of the land of Egypt" (Leviticus 19: 35–36), "But use a true and just weight, and a true and just measure, that you may have a long life on the land which the LORD, your God, is giving you. Everyone who is dishonest in any of these matters is an abomination to the LORD, your God" (Deuteronomy 25: 13–16), "Varying weights, varying measures, are both an abomination to the LORD. [. . .] Varying weights are an abomination to the LORD, and false scales are not good" (Proverbs 20: 10, 23).* The main problem with fractional reserve banking is that it creates money out of nothing and without the slightest effort or risk (all commercial activities are risk bearing). And since this money has purchasing power, this means creating wealth out of nothing. The creation of wealth for the first time, from non-existence to existence, cannot be included in the commercial transactions of the bank as it does not obtain this wealth (ownership) through trade or the exchange of things of value. Thus, ownership of money created by themselves (commercial banks) does not conform to any known form of wealth creation (through effort, work or trade). So how can commercial banks turn inputs in the computer that have no intrinsic value into real wealth? The law that permits banks to create money out of nothing is analogous to a law that equates something that has no value (computer generated numbers/digits in the case of the fractional reserve system) with something that has value, such as commodities and human effort, and since commercial banks are the primary source of money that individuals resort to in their dealings, the fractional reserve system renders commodities and human effort worthless within the economy. The settlement of debts, which is the fourth function of money, emphasizes the need for the stability of the money's value. In order for people to be satisfied with money as loans, transactional debts, or compensation for damages, the money that they receive should be sufficient to buy the equivalent of the damaged good (property), or the equivalent of the commodity whose value the debtor borrowed. This means that the value of the monetary unit must be stable, otherwise disputes will inevitably become rife due to the unjust and unstable unit of measure

(money). Therefore, the stability of the money's value is an essential characteristic related to the efficiency of performance of its functions. This depends mainly on the relative relationship between the money supply and the commodity supply. This is not a requirement for improvement in money, but rather a definite Islamic legal (*Sharii'*) requirement from the legal and economic point of view. God commanded justice, and there is no doubt that the stability of the value of the monetary unit is a condition (pre-requisite) for justice in transactions. The absence of this requirement in money disrupts the dynamics and axioms of rights and obligations between people. In Islam is has been established that it is illegal to use an unstable (irregular) container, so how can we condone the measure of values (sales, contracts, and definition of obligations...etc.) with a measure of value that is not stable (irregular) over time! And 'economically speaking' the stability of the value of money from a pure economic point of view is the goal of what common sense recommends because the tendency of the value of money to decline strongly discourages lending and saving. The erosion of the value of money turns individuals into urgent consumers (inclined to consume today rather than tomorrow) who refrain (discouraged) from saving (because money is no longer a store of value). This adversely impacts potential investments, which could have been achieved through savings, which in turn deprives the economy of its productive instrument and raises the costs of dealing with real assets (non-liquid) because it lacks liquidity inherent in money. This encourages immediate or short-term speculations, which seriously harms real investments by killing or aborting them. The economy ends up plagued with mal-investments funded by money creation and not savings (extensively discussed in the previous section of the article – legal perspective). Accordingly, the stability of the value of money is a condition for proper (just) dealings in terms of rights, a condition for expanding the volume of transactions and a guarantee for them over time. It is also a condition for protecting the individual's rights (choices) in terms of how he chooses to spend his money, without institutional pressures that distort these choices, being it in his consumer or investment decisions.

It has to be noted that bimetallism (gold and silver) has one notable advantage in that it places strict quantitative limits on the money supply; this is what we completely lack in the modern paper system, which enabled two large institutions to fail the society (by usurping its wealth), namely commercial banks and governments.

Commercial banks were playing the role of the issuer of paper money when these were in their early stages promissory notes or gold 'money' receipts, so they benefited from their position among the public not only by lending with interest, but also by issuing paper money (unbacked banknotes) in volumes that exceeded their gold reserves; they had property rights over real assets, meaning they misappropriated a large share of the wealth of the society (sharing with the public the ownership of its assets and wealth). Also, when the European kings became aware of the real role played by commercial banks, they confiscated the function of money issuance and confined it to state's issuing banks they managed. Since then, governments have been issuing paper money (legal tender) as long as they have no oversight from the public. It is an ideal alternative to taxes.[78] Thus, governments share real assets with their citizens, not as custodians of public resources, but because they have the power to issue money. The commercial banks, and behind them the trumpets of usurers, could not sit and watch in the shadows, so they began to generate a new type of money, which is deposit money, to compensate for what they lost to the state when it issues paper money. Soon, this new form of money expanded rapidly, and became the standard tool of settlement of the largest part of the obligations in dealings in developed countries. The two previous practices have harmed the value of money in a very bad way. Despite the huge growth in production (which is supposed to raise the value of money), the purchasing power (the value) of money is continuously in decline as a result of the expansion of money issuance and lending (bank deposit money).

To conclude, any ethical assessment of the process of money creation/production must take into account the following implications:

- The units of money in circulation represent common rights for their holders over the units of output in that environment, and no one wants money for itself, but rather for the goods and services

[78] On this particular ascertainment see Ludwig von Mises, *Theory of Money and Credit,* Liberty Fund, Indianapolis 1980, pp. 466-469.

it acquires for its bearer; that is, it is intended exclusively for its purchasing power, regardless of the different motives for the initial demand for it.

- There is no meaning to any absolute value of the monetary unit, rather its value is exclusively represented by what it can buy.
- On this also, it is pointless to look at the total amount of money in a separate manner without looking at the output, as the value of the monetary unit is its share of the output, Per Unit of Product.
- Any new money issuing operation means a decrease in the monetary unit share (allocation) in the units of output, assuming its volume remains constant. This means that the new issue - as soon as it enters the circulation environment – will deplete the value of the monetary units in people's hands, as this new issue will immediately share with the old money issue the available (at hand) output. Some economists have tolerated a percentage of inflation (the decline in the value of money) in the belief that this stimulates investment and provides the conditions for growth, but this belief contradicts what was previously established by '*Sharia*' regarding the necessity of stability in the value of money, and even conflicts with pure theoretical considerations; since the decline in the value of money represents a constraint on growth, not a condition for it.
- A new issue means that the issuer has appropriated to himself a communal portion (common share) of the output and real assets of the community.
- The principle in an Islamic economy is for the state (the imam or his representative) to issue money; it is a legitimate, sovereign mandate of the Imam, as confirmed by jurisprudence reports and the economic history of the Islamic rule.
- The ruler should not profit from this sovereign position and legal guardianship. Thus, the margin (difference) between the cost of issuing new money and its value (purchasing power), in the context of circulation, should benefit the community through its public facilities first, in addition, the ruler should use the issuing institution as a way to ensure and guarantee the stability (fixing) of the value of money because it is a definite Sharia requirement.

Therefore, money creation/production under fractional reserve banking entails:

(a) Technically, a continuous decline in the value of money (monetary unit) available in circulation, because it will increase the volume of money in relation to the volume of output. Some might argue that the generation of credit will be accompanied by commodity flows that would in turn increase the volume of output, however this - assuming it is achieved - can never occur in simultaneity. The means of purchase (increase in money supply through money creation/production) always precedes (into circulation) the units of output, and therefore, money losing its purchasing power (decline in the monetary unit's value) is inevitably present and inherent.

(b) That commercial banks (including Islamic banks) own a part of the social output and real assets in proportion with the amount of money generated.

(c) That the conventional commercial bank - when granting loans - will relinquish present and common ownership in favor of the borrower with the intention of recovering it later plus the guaranteed interest. As for the so called Islamic commercial bank, it will use it in Mudharabah or Musharakah, which means that not only it will get the value of the assets that correspond to the created money (bank deposit money), it will earn profits from its participation.

Based on the previous logical assumptions, is it justified for a privately owned Islamic commercial bank to generate (create/produce) money? The obvious answer is negative, of course, because from an administrative point of view, this is exclusively the matter of the imam 'the ruler'. It is a legitimate sovereign mandate and can only be entrusted within the purposes of the legitimate politics 'Assiyassa Asharaiya' in a verified manner. It is inadmissible to accept what some have argued stating that the central banks (the imam's banks) authorize those whom they delegate (commercial banks including the Islamic ones) to issue money, for there is a big difference between the imam directing and deputizing the workers 'minters' of the regions 'states' in their official capacity to mint the money without owning it or appropriating its corresponding assets and without gaining the slightest profit from it, and between claiming that the Central Bank delegates to the Islamic Commercial Bank the task of generating (creating) money. And even if he does, his action is

illegitimate because he entrusted what he does not possess to someone who does not deserve it and he renounced a legal duty entrusted to him. The mere minting of coins with the same emblems and insignia of Islam - even if they are pure - is something that the scholars and jurists rejected because it involves transgressions against the imam, so what about the practice of today's commercial banks (both Islamic and conventional)? When they mint (create/produce money) what they don't own, take possession of others property, and abuse the imam and his subjects 'citizens'! Moreover, is it justified for a privately owned Islamic commercial bank to seize (and appropriate) a part of the output or a part of the community's assets just because it added new digits to its accounts?! Is it permissible for it to own the profit resulting from the use of this essential tool (means) of the society that it generated (produced) illegally, just because it does not use it in an interest-based lending? It is a profit gained from a usurped money in the first place!! Islamic banks resorting to Mudharabah and Musharaqah 'partnership' does not absolve them of their responsibility towards society, nor does it qualify them to make a profit from using the money that they created (generated). The matter must be scrutinized and evaluated at its roots. When the commercial bank generates new money, it will actually lend what it does not own and own what it had no right to, then make profits from its possession of usurped money. If with regards to central banks, the issuance of legal money should not be a means of making a profit (by expansion of issuance) which reduces the value of money making this profit (which the central bank achieves) an unjust depletion of people's money, and a violation of the justice required of the ruler among the people, how can we tolerate the usurping commercial banks (both Islamic and conventional) with their unjustifiable profits knowing that they are privately owned? The argument stating that the banks guarantee their investments making their profit justified on the basis of *"the outcome (profit) by guarantee – alkharaaj bi dhamaan"* meaning any profit goes to the one who bears responsibility, and *"There is no reward without risk – Al-ghunm bil-ghurm"*, is only correct when the investments of these banks are financed by a legitimate means (real available money coming from real savings) and not by issuing and generating new money. This is an issue that should be carefully paid attention to. Thus, it is clear that preventing commercial banks from creating/producing deposit money - even if these banks are Islamic - does not stem from the harmful effects resulting from the behavior of conventional commercial banks which do not abide by the provisions of Islamic Sharia only, but rather stems from the logical scrutiny and evaluation of that practice - money creation/production - in light of Islamic legal rulings and their purposes. That is why inflation is an inherently bad action in the sense of Catholic moral doctrine. These effects are *"especially strong among the youth. They learn to live in the present and scorn those who try to teach them 'old-fashioned' morality and thrift".* Inflation thereby encourages a mentality of immediate gratification that is plainly at variance with the discipline and eternal perspective required to exercise principles of biblical stewardship - such as long-term investment for the benefit of future generations.[79]

In addition to the fact that Islamic banks only imitate the financial products of non-Islamic banks,[80] Islamic banks operate within the same system with the same basic principles as conventional banks: the fractional reserve system, no risk and no effort. These three principles contradicts Islamic teachings and laws (as it has been demonstrated above). We have seen that Islamic banking transactions, despite their apparent conformity with Islamic law, are in reality based on fractional reserve banking and money creation/production. This means that Islamic banking transactions are merely Islamic on the façade because their essence contradicts the spirit of Islam and the purposes of Islamic law. They blatantly contradict the purposes of the law governing creating wealth, possessing, using, transferring and preserving it. Moreover, money creation has devastating consequences for society, in addition to being incompatible with social stability and moral principles. This is why Islamic economics has been reduced to Islamic banking in order to divert the attention away from the blemished basics and principles of the economy in which both conventional and Islamic commercial banks operate. Evidently, the rejection of money creation/production under fractional reserve banking

[79] T. Woods, 'Money and Morality: The Christian Moral Tradition and the Best Monetary Regime', *Religion & Liberty,* vol. 13, no. 5, September/ October 2003.
[80] For an extensive empirical research see F. Khan, 'How "Islamic" is Islamic Banking?' *Journal of Economic Behavior & Organization*, vol. 76, no. 3, 2010, pp. 805-820.

in the Islamic economy and by scholars who work for Islamic financial institutions is an impossibility due to the conflict of interests (the same applies to their counterparts from conventional banks). Father Bernard W. Dempsey S.J. concluded in his remarkable book Interest and Usury that even if we accept interest as legitimate, fractional-reserve banking amounts to "institutional usury" and is especially harmful to society, since it repeatedly generates artificial booms, bank crises and economic recessions.[81] In his words, we might say that *"we have the effect of usury without the personal fault"* of the financial agents. *"The usury is institutionalized, or systemic."*[82]

5. Conclusion

Many experts and practitioners in the field of finance and banking assert that when commercial banks extend credit (grant loans) they actually create money "out of nothing". Werner's empirical test proved that banks individually create money out of thin air under what is known in the literature as 'the credit creation theory of banking'. This paper exposes the inherent legal and religious violations embedded in the process of money creation/production under fractional reserve banking. Some of the main legal perspectives discussed in this paper include the violation of traditional legal principles governing property rights due to the confusion (blurriness) about the difference between property and property titles (acts of misappropriation), the incompatibility of the money creation process with the title-transfer theory of contract, the impossibility of something (property) having multiple owners at once, the logical precedence of property and property theory over contract and contract theory and the requirement of fulfilling contractual obligations with owned property and not with someone else's property, and issues related to money debasement and inflation (legal tender and deposit money laws). As for the main religious perspectives, they include decreasing the monetary unit value (making it unstable) which unjustly depletes people's money (purchasing power), creating wealth (money) with no effort, risk or trade, taking possession of others property and abusing the imam 'the ruler' and his subjects 'citizens', the Islamic (and conventional) banks' misappropriation of a part of the output or a part of the community's assets, and basically the 'magical' ability to create money out of nothing (only God can create something out of nothing). This research paper provides an extensive critical analysis of the numerous legal and religious violations at the core of the process of money creation/production with the aim to prove how immoral, unethical and harmful it is at both individual and societal levels.

Bibliography

1. Abou Yaa'la Al-qadhi, *Al-ahqam assoltaniya*, 2nd edn, maqtaba al-I'lam al-Islamy, Beirut, 1986.
2. Al-Ghazaly, A., *Ihya' O'loom Eddin*, 1st edn, Dar Al-fikr, Beirut, 1975.
3. Al-Maoussoua Al-Fiqheya, 2nd edn, The Ministry of Awqaf and Islamic Affairs in Kuwait, 1983.
4. Al-Sabhany, A., 'Al-noqood Al-Islamiya qama yanbaghi an taqoon: Money as it should be in an Islamic System', *king Abdul-Aziz University journal of Islamic economics*, vol. 10, pp. 3-38, 1998, https://al-sabhany.com/images/Pdf/Money_as_it_Should_Be_in_an_Islamic_System.pdf
5. Annawawy, *Al-majmoo*, al-maqtaba assalafiya, Al-madina Al-monawara, n.d.
6. Ashawqany, *Nayel al-awtar: sharh montaqa al-akhbar*, shariqat babby al-halaby, Cairo, n.d.
7. Bagus, P. and Howden, D., 'Fractional Reserve Free Banking: Some Quibbles.' *Quarterly Journal of Austrian Economics,* vol. 13, no. 4, 2010, pp. 29-55, https://mpra.ub.uni-muenchen.de/79590/1/MPRA_paper_79590.pdf.
8. Bagus, P. and Howden, D., 'Unanswered Quibbles: George Selgin Still Gets It Wrong with Fractional Reserve Free Banking', *Revista Procesos de Mercado*, vol. 8, no. 2, July 2011, pp. 83-111, http://dx.doi.org/10.52195/pm.v8i2.248.
9. Bank of England, 'Money creation in the modern economy', *Quarterly Bulletin*, Q1, 2014, https://www.bankofengland.co.uk/-/media/boe/files/quarterly-bulletin/2014/money-creation-in-the-modern-economy.pdf.
10. Benlala, M. A., 'A Scrutiny of The Demand Deposit (Current Account) through the Lenses of Law and Islamic Jurisprudence', *Law and World*, vol. 8, no. 4, December 2022, pp. 16-33, https://doi.org/10.36475/8.4.2.
11. Benlala, M. A., 'The Characterization of the Demand Deposit as a Loan under Fractional Reserve Banking: A Critical Legal Analysis,' *Perspectives of Law and Public Administration*, vol. 11, no. 4, December 2022, pp.

[81] B. W. Dempsey, *Interest and Usury,* American Council of Public Affairs, Washington, D.C. 1943, p. 228.
[82] Ibid, p. 207.

638-649, https://www.adjuris.ro/revista/articole/An11nr4/16.%20M.A.%20Benlala.pdf
12. Berry, S., Harrison, R., Thomas, R. and Weymarn, I., 'Interpreting movements in broad money', *Bank of England Quarterly Bulletin Q* 3, 2007.
13. Bundesbank, 'The role of banks, non-banks and the central bank in the money creation process', Monthly Report 2017, https://www.bundesbank.de/resource/blob/654284/df66c4444d065a7f519e2ab0c476df58/mL/2017-04-money-creation-process-data.pdf.
14. Constancio, V., 'Challenges to monetary policy in 2012', *Speech at 26th International Conference on Interest Rates,* Frankfurt am Main, 8 December 2011, https://www.bis.org/review/r111215b.pdf.
15. Corporate finance institute team, 'Fractional Banking', *Corporatefinanceinstitute* [website], https://corporate financeinstitute.com/resources/economics/fractional-banking/.
16. Dempsey, B. W., *Interest and Usury,* American Council of Public Affairs, Washington, D.C. 1943.
17. Financial Conduct Authority, Client asset sourcebook (CASS), FCA PRA handbook, 2013, http://fshandbook.info/FS/html/FCA/.
18. Foundation For Teaching Economics, 'Activity 6: Show Me the Money! A Fractional Reserve Banking Simulation', *fte* [website], https://www.fte.org/teachers/teacher-resources/lesson-plans/efiahlessons/show-me-the-money-activity/.
19. Gross M. and Siebenbrunner, C., 'Money Creation in Fiat and Digital Currency Systems', *IMF Working Paper*, WP/19/285, December 2019, https://doi.org/10.5089/9781513521565.001.
20. Hayek, F. A., *The Fatal Conceit: The Errors of Socialism,* 1st ed., Routledge, 1990.
21. Hoppe, H., 'How is Fiat Money Possible? or the Devolution of Money and Credit', *Review of Austrian Economics*, vol. 7, no. 2, 1994, pp. 49-74.
22. Hoppe, H., Hulsmann. J. G. and Block, W., 'Against Fiduciary Media', *Quarterly Journal of Austrian Economics*, vol. 1, no. 1, 1998, pp. 19-50, https://cdn.mises.org/qjae1_1_2.pdf
23. Huerta de Soto, J., *Money, Bank Credit, and Economic Cycles,* Ludwig Von Mises Institute, Auburn, AL., 2006.
24. Hulsmann, J. G., 'Banks Cannot Create Money', *The Independent Review,* vol. 5, no 1, summer 2000, pp. 101-110, https://www.independent.org/pdf/tir/tir_05_1_hulsman.pdf
25. Hulsmann, J. G., *The Ethics of Money Production*, Ludwig Von Mises Institute, Auburn, AL., 2008.
26. Ibn Al-Qayyim Al-Jawziya*, I'lam al-mowaqii'in a'n rab al-a'lamin*, dar al-jabal, Beirut, 1973.
27. Ibn Khaldun, *Moqadimat Ibn Khaldun*, 1st edn, Dar al-qalam, Beirut, 1978.
28. Ibn Rushd, *Bidayat al-moujtahid wa nihayat al-moqtassid*, Dar al-khilafa al-aliya, matbaa't Ahmad Kamel, Istanbul, 1915.
29. Ibn Taymiyyah, *Majmoo' Al-fatawa*, *tajmii' abderrahman al-najdi al-hanbali*, 1st edn, Matabii' Arriyadh, Arriyadh, 1962.
30. Keynes, J. M., *A Treatise on Money,* Macmillan and Co., London, 1930.
31. Khan, F., 'How "Islamic" is Islamic Banking?' *Journal of Economic Behavior & Organization*, vol. 76, no. 3, 2010, pp. 805-820.
32. King, M., 'Speech to the South Wales Chamber of Commerce at the Millennium Centre', Cardiff, October 23rd, 2012.
33. Mankiw, N. G., *Macroeconomics,* 7th edn, Worth Publishers, New York, 2010.
34. Minsky, H. P. and Kaufman, H., *Stabilizing an unstable economy*, Vol. 1, McGraw-Hill, New York, 2008.
35. Rendahl, P. and Freund, L. B., 'Banks do not create money out of thin air', *Centre for Economic policy research cepr* [website], 14 December 2019, https://cepr.org/voxeu/columns/banks-do-not-create-money-out-thin-air
36. Rothbard, M. N., *Man, Economy, and State,* Ludwig Von Mises Institute, Auburn, AL., 1993.
37. Rothbard, M. N., *The Case Against the Fed,* Ludwig Von Mises Institute, Auburn, AL., 2007.
38. Rozeff, M., 'Rothbard on Fractional Reserve Banking: A Critique', *The Independent Review,* vol. 14, no. 4, 2010, pp. 497-512. https://www.independent.org/pdf/tir/tir_14_04_02_rozeff.pdf
39. Salerno, J. T. and Cochran, J. P., 'Fractional Reserve Banking and The Federal Reserve: The Economic Consequences of High-Powered Money', *Hearing Before the Subcommittee on Domestic Monetary Policy and Technology of The Committee on Financial Services*, U.S. House of Representatives, 112th Congress, 2nd Session, June 28, 2012, https://www.govinfo.gov/content/pkg/CHRG-112hhrg76112/html/CHRG-112hhrg76112.htm.
40. Schumpeter, J., *The Theory of Economic Development,* Harvard University Press, Massachusetts, 1949.
41. Scitovsky, T., *Money and the Balance of Payments*, 1st ed., Routledge, 1969, https://doi.org/10.4324/978131 5438924.
42. Selgin, G., 'Mere Quibbles: Bagus and Howden's Critique of The Theory of Free Banking', April 4, 2011, http://dx.doi.org/10.2139/ssrn.1800813.
43. Selgin, G., *The Theory of Free Banking: Money Supply under Competitive Note Issue*, Rowman and Littlefeld, New Jersey, 1988.
44. Turner, A., 'Credit, Money and Leverage', *Conference on: Towards a Sustainable Financial System*, Stockholm School of Economics, September 12th, 2013, https://cdn.evbuc.com/eventlogos/67785745/turner.pdf.
45. Von Mises, L., *The Theory of Money and Credit*, Liberty Classics, Indianapolis, Ind., 1980.
46. Werner, R. A., 'Can banks individually create money out of nothing? - The theories and the empirical evidence', *International Review of Financial Analysis*, vol. 36, 2014, pp. 1-19, http://dx.doi.org/10.1016/j.irfa.2014.07.015.

47. Werner, R. A., 'How do banks create money, and why can other firms not do the same? An explanation for the coexistence of lending and deposit-taking', *International Review of Financial Analysis*, vol. 36, December 2014, pp. 71-77, https://doi.org/10.1016/j.irfa.2014.10.013.
48. Woods, T., 'Money and Morality: The Christian Moral Tradition and the Best Monetary Regime', *Religion & Liberty,* vol. 13, no. 5, September/ October 2003.