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Full Reserve System and Islamic Banking System Proposal: A Comparative Study of Fractional Reserve Free-Banking Theory

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ABSTRACT
This article aims to compare the fractional reserve free-banking theory. The emergence of these theories is due to the impact of fractional reserve banking on the crisis and bubble economies. So that in seeing this phenomenon, the thoughts of Positive Money and the New Economics Foundation, Narrow Banking, LPB (Limited Purpose Banking), and the Chicago Plan together contribute controversial ideas to the banking monetary system, namely in the form of fractional reserve free-banking. According to some of these thoughts, the current source of modern economic instability lies in the fractional reserve banking system that is applied in commercial banking throughout the world through money creation capabilities, so that the money supply shifts from its equilibrium point. The implications of the intermediary function make Islamic banks also face the risk of 'too big to fail', considering the pattern of Islamic banks is still intermediary. This means that liquidity risks and bank runs are very likely to occur. This is reinforced by the more varied products of Islamic banks compared to conventional banks, so there needs to be an effort so that Islamic banks transform themselves from fractional reserve banking to fractional reserve free-banking with the A-F model.
Keywords: intermediary, fractional reserve free-banking, islamic bank

INTRODUCTION

Historically, Islamic Banks have no pure theoretical foundation in running a banking system that is based on sharia principles. In these unfavorable conditions, Islamic banking seeks to find an adequate system to be applied and then the fractional reserve banking system chosen, while this system has been widely used by conventional systems. Though the system along with the interest rate system, proved to be vulnerable to the financial crisis.[1] The absence of the role model of Islamic banking in the history and civilization of Islam in the golden age, 7th century to the 14th century, indirectly encourages Islamic Banking to still reflect on conventional banking practices, even though Islamic Banks have implemented interest free-banking and it indicates the start of a new

[1] Mehmet Asutay. "A Political Economy Approach to Islamic Economics: Sistemic Understanding for an Alternative Economic Sistem". *Kyoto Bulletin of Islamic Area Studies* 1, no. 2 (2007): 3-18.

era in the national banking legal system.[2] But on the other hand, Islamic Banks have not implemented the practice of fractional reserve free-banking.

A number of studies, the practice of fractional reserve banking contradicts the Islamic masqasid, for example Meera and Moussa stated in their research that fractional reserve banking is not in accordance with Islamic principles, because it is contrary to the *concept of al-milkiyah* (ownership) in Islam.[3] The creation of money through fractional reserve banking is the creation of purchasing power from nothing (creating money out of nothing) will have an impact on the inequity of the transfer of asset ownership in the economic structure, because the transfer of ownership is not based on human effort by taking legal and not with the knowledge or approval of the original fund owner. This violates the principles of ownership in Islam and is tantamount to theft, moreover this system is very closely related to the ribawi elements.[4] Sani and Aziuddin also concluded that fractional reserve banking is not allowed in an Islamic perspective. This perspective is based on the maqasid sharia parameters used to empirically measure the implications of the frational reserve banking system on the economic stability of society.[5]

The limitations of previous research were limited to discussing Fractional Reserve Banking with very limited theory. The novelty of this research is the collection of data on all theories that support partial reserve free-banking and promoting a concept that is in accordance with sharia mechanisms, namely the A-F model approach. This approach is very important to support the continuity of a sharia banking system that is in accordance with the character of sharia financing. This paper is divided into six sections. After introducing the topic, section two highlights fractional reserve banking theory. Section three outlines comparative of Fractional Reserve Free-Banking theory. Section four outlines Islamic A-F Model approach.

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[2] R. Kasri, and Kassim, S. H. "Empirical determinants of saving in the Islamic banks: Evidence from Indonesia". *Journal of King Abdulaziz University: Islamic Economics* 22, no. 2 (2009): 181-201. And Abdullah, W. A. W., Percy, M., and Stewart, J. "Determinants of voluntary corporate governance disclosure: Evidence from Islamic banks in the Southeast Asian and the Gulf Cooperation Council regions". *Journal of Contemporary Accounting & Economics* 11, no. 3 (2015): 262-279, W. Ahmad and Luo, R. H. "Comparison of banking efficiency in Europe: Islamic versus conventional banks. In International Banking in the New Era: Post-Crisis Challenges and Opportunities". *Emerald Group Publishing Limited* 11, no. 1 (2010): 361-389.

[3] Meera, AKM., and Moussa, L., "Ownership Effects of Fractional Reserve Banking: An Islamic Perspective", *Journal Humanomics* 25, no. 2 (2009): 101-116.

[4] Zuriyati Ahmada, Abdul Ghafar Ismail, "Full reserve system and the Maqasid Shariah," *Journal of Emerging Economies & Islamic Research* 5, no. 2 (2017): 58 – 66. More, currently be explained Saidu Sani Alhaji, Danjuma Mohammed, and Adamu Rukaiyatu, "Influence of Fiat and Fractional Reserve Banking on Financial Stability of Nigeria from 1973 To 2018," *ADSU Journal of Economics & Interrelated Disciplines (AJEID)* 5, no. 1 (2020): 245-251.

[5] Sani, M.D., S. Arfah, A.K.M. Meera., and Aziuddin, "Fractional Reserve Banking and Maqasid al-shariah: An incompatible Practice," *Journal Humanity & Islam* 3, no. 1 (2013): 1-8.

Literature Review

Fractional Reserve Banking Theory

Literally, fractional reserve banking is a practice in which a bank retains only a portion of a customer's deposits as available reserves (currency or deposits at the central bank) as an obligation for payment if there is a withdrawal from the customer. The remaining funds from other customers are used by banks to make investments, loans (conventional) and financing (sharia) to other customers.[6] Most of these funds will later be deposited back to other banks, which allows further loans and financing. If in the monetary system there are an infinite number of banks, the process of lending continues with non-stop acceleration and multiplier effects.[7]

Thus, banks basically take advantage of the multiplier effect in providing access to fund raising and at the same time using a portion of these funds as loans and financing.[8] This is the initial process by which money is created by commercial banks throughout the world.[9] In connection with this, theoretically, the central bank has direct control of high powered money (high powered money) consisting of currency and deposits, with the symbol H. Some of the currencies held by the public form part of the currency in circulation. Currency in bank vaults and bank deposits is used by the central bank as a reserve to support deposits. It is known that the money stock is at the top position, and the high-power money stock is at the bottom position, which is also referred to as base money. Money and high-power money are linked by money multipliers. A money multiplier is a ratio of money stock to high-power money stock. A money multiplier is greater than 1. From the clear diagram that the greater the deposit as part of the money stock, the greater the multiplier. For example, if the reserve ratio is 10%, then each money stock in the form of deposits is only 10% of high-power money.[10]

METHODS

In this study, the type of research used is library research using descriptive analysis methods, namely by collecting data, compiling or clarifying and interpreting. Descriptive method was chosen because the research conducted aims to clearly describe the object under study naturally. In this study, the object of study is the fractional reserve free banking theory, such as chicago

[6] Musse, O.S.H., Abdelghani, E., and Hassanuddeen, A.A., "Fractional Reserve Banking and Price Stability: Evidence from Gulf Cooperation Council (GCC) Countries," *American Journal of Economics and Business Administration*, (2015).

[7] Dixhoorn, C. V. "Full Reserve Banking: An Analysis Of Four Monetary Reform Plans" (The Netherlands: Stainable Finance Lab, Utrecht, 2013).

[8] Mallett, J., "Analysing the Behaviour of the Textbook Fractional Reserve Banking Model As A Complex Dynamic System," *In Proceedings of the Eighth International Conference on Complex Systems* (2013): 1141–1156.

[9] Michael .C, Amar. R., and Ryland, T., "Money in the modern economy: an Introduction," *Bank of England Quarterly Bulletin* 2014 Q1. (2014),

[10] Dornbusch, R. *Makroekonomi* (Jakarta: PT Media Global Eduksi, 2008)

plans, positive money, new economic foundations, narrow banking and A-F proposal models in Islamic banking.

RESULTS AND DISCUSSION

Comparative of Fractional Reserve Free-Banking theory

Historically, empirical facts about fractional reserve banking as one of the systems of intermediary banks were the cause of the crisis beginning with the Great Depression in the 1930s. This problem arises in banks proposed by economists who are members of several communities who are trying to conceptualize a bank that is more stable and safer.[11] Such as Positive Money domiciled in the UK, Chicago plans, the New Economics Foundation (NEF) and Limited Purpose Banking (LPB). Below will be discussed in detail the concept of bank reform, as follows:

Chicago Plan

The criticism of Chicago economists in general lies in the ability of the fractional reserve banking system that banks use to create money out of nothing. Commercial banks, as creators of money, are a problem for economic stability, because they will cause money supply quantities to be relatively out of control.[12] This is the reason for the Chicago economists by proposing a series of plans, one of which is by advocating the separation of the functions of money and bank credit. This can be done by ensuring that all current accounts will be backed up with the government currency (real money). This will allow better control of money supply and ensure the safety of current accounts at all times. Commercial banks only act purely as intermediaries, not as creators of money.

From this separation, implicitly, at least the role of banks will be divided into two, namely as "money banks" and "credit investment trusts". The first role is only responsible for providing full liability supported by 100% real money: risk-free payment system. While the second role takes the role of intermediation between creditors and debtors. In this case "money bank" and "Credit Investment Trusts" are separate functions and are likely to charge a small fee per deposit to cover overhead costs.

In simple terms, commercial bank assets are utilized by credit investment trusts, assets here are not liabilities for depositors, but assets obtained from debt to the government. This can be said as seigniorage, which takes back the benefits of the money creation period that commercial banks have done so far. This action is very important action to take, so that the credit investment trust does not make money in the loan process, but remains controlled from the central bank.

The advantages of the Chicago Plan for banking and economic stability are as follows[13]:

[11] Bagus, P., and David., H. “Fractional Reserve Free Banking: some Quibbles,” *The Quarterly Journal of Austrian Economics* 13, no. 4 (2010): 29-55.

[12] Mabid Ali Al-Jarhi, “Remedy For Banking Crises: What Chicago and Islam Have In Common: A Comment,” *Islamic Economic Studies* 11, no. 2 (2004).

[13] Benes, J. and M. Kumhof. “The Chicago Plan Revisited”. *IMF Working Paper*. 2013. pp 50-65

1. There are more effective controls in the business cycle, because the functions of money and credit are completely separated, so that the money supply quantity is relatively controlled.
2. The risk of bank runs will be completely eliminated, because all deposits are fully supported by the reserve, so every depositor has no reason to suddenly take their money. So there is no need to establish deposit insurance.
3. There are expectations of a reduction in government debt. This is the result of money supply made as government equity, and all seigniorage profits allocated to non-private government (commercial banks).Better output gain is found. This happens for three main reasons. First, because of lower interest rates, the result of lower risk premiums in economies with lower general debt levels. Second, the output gain from the tax burden is reduced as the seigniorage gain from the increase in the money supply (which is needed for economic growth) allocated to the government allows lowering the tax rate. Third, monitoring costs are reduced to money creation because they no longer use debt creation.
4. Avoid liquidity traps, because monetary policy includes rules on money growth to control inflation, for example with the interest rate on treasury loans lent to banks, can be used as a controller of money supply quantity. In addition, liquidity traps can also be avoided because money is directly controlled by the government and not by commercial banks, and because the treasury credit interest rate is stable because it is only an interest rate on loans, not opportunity costs.

Poistive Money and New Economics Foundation (NEF)

The Positive Money and New Economics Foundation (NEF) aims to ensure that commercial banks no longer have the ability to create money and separate the payment system from lending accounts and investment activities carried out by banks. The proposed new concept at this bank is not much different from the Chicago Plan, only PM and NEF are more technical by creating new accounts that can be used by banks such as transaction accounts, investment accounts and operational accounts). Transaction accounts provide instant access to one's money through checks, ATMs, electronic payments or debit cards. This account acts as a safety deposit box: 100% of money is always there. Commercial banks manage their individual accounts in an internal database, but the money is held off-balance in the central bank database in customer fund accounts held per commercial bank. Transaction accounts are not bank liabilities; but it is an obligation on the depositor. Deposits maintain their value independently of the solvency and liquidity of commercial banks. If the bank fails, transaction accounts can be transferred to another bank. Transaction accounts are risk free and do not require a deposit insurance scheme. However, there are no interest fees. Banks can charge fees for this service, or offer it free to attract customers.[14]

[14] Charotte Van Dixhoorn , *Full Reserve Banking: An Analysis Of Four Monetary Reform Plans*: 15-18.

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Investment accounts are known as term savings accounts. Customers who want a return can use this investment account. This account has a variety of goals, interest rates, time periods. This account will not be protected by a State guarantee or insurance scheme, because the risk is shared between banks and investors. The money allocated to this account by the customer is directly transferred to certain investment pool accounts, that is, bank assets that can be used to make investments. The money in the investment pool account as a transaction account, is placed in the central bank, so it does not have money, but only records of the bank's obligations to customers. Thus, this account cannot print "new money" without going through a central bank.

Whereas Operational accounts are commercial bank transaction accounts. This account is owned by a bank (bank assets), but like a transaction account, it is placed off-balance at the central bank. An operational account, for example, can be used to pay bank employees' wages, or contain retained earnings. However, this account cannot be used to receive funds for loans and loan payments, or transfer loans to borrowers.

The advantages of the Positive Money and New Economic Foundation proposals are as follows:

1. Can reduce the level of debt.
2. Does not need a deposit insurance scheme and is able to let the bank fail without disruption to the payment system
3. Money supply controls can be simplified, as controls, and regulations from the center are no longer needed (Open Market Operations, Discount Window Facility, Insurance Deposit Scheme, Capital Adequacy Requirements).

Narrow Banking

Narrow banking's proposal is to remove the ability of banks to utilize government insurance or guarantee deposits and demand deposits. Deposit insurance can only apply to backing up liquid assets. This guarantee is carried out when there is a distortion in the relationship of risk-return and the competitiveness of the financial system resulting in financial instability and inefficiency in the long run.[15]

This proposal provides two main services, namely payment system and savings. However, it remains in back-up with real money, is stable, liquid assets (for example government securities) and must be equal to the amount of existing deposits. The deposit savings period is not provided at Narrow banking. Narrow Banking is permitted to conduct loan activities. However, to be effective and avoid liquidity risk, it must be limited to investing in the short term.[16]

Not much different from the previous proposal, in the Narrow Banking concept, there must be a separation between the payment system and the account used for loans. This is to ensure Narrow Banking assets are not used by the

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[15] Kay, J., Narrow Banking: The Reform of Banking Regulation, CSFI *Centre for the Study of Financial Innovation* (2009): 18-21.

[16] Kobayakawa, S. and H. Nakamura. *A Theoretical Analysis of Narrow Banking Proposals. Monetary and Economic Studies*, (2000): 105-118.

Investment Bank, and also do not have access to the Narrow Bank payment system.

Investment banks carry out all non-monetary activities. But it cannot take deposits from individuals or from other commercial banks. Bank investment is also not guaranteed by the government in any way, the bank is left to fail. The maturity of assets and liabilities are requested to match more closely to avoid mis-match maturity, given Narrow Banking can no longer use short-term demand deposits as funds for loans. More specifically, the duration of a liability must be the same as an asset.

At least, the Narrow banking proposal has the following advantages:

1. The government is not responsible for the failure of commercial banks. This "guarantee" depends only on the lending activities of each bank.
2. This proposal can separate money creation from debt creation and return full rights to the central bank as the center for printing money.

Limited Purpose Banking (LPB)

Limited Purpose Banking (LPB) was developed by Kotlikoff. The aim of LPB is to reduce risk in the overall financial sector. According to Kotlikoff the 100% reserve and Narrow Banking scheme alone is not enough to overcome the already complex financial problems. This is due to banks that function as intermediaries, the bank's position can be a creditor and at the same time also a debtor, so that banks always face risks. This is the reason for collateral in banks, because banks have the status of "too big to fail". Thus, LPB is not so focused on money and debt, but beyond these two factors.[17]

Under the LPB, all financial industries have limited liability to be operated like holding companies through a mutual funds mechanism. All intermediary forms in this proposal are treated equally to create a simpler system where there is no government guarantee. Mutual funds are not allowed to lend funds except for equity-based investments. LPB ensures that banks only act as intemediaries and the risk is fully borne by investors. In the case of money supply, it is fully controlled by the government in the same manner as the previous proposal, namely by requiring money to be fully backed up.

Based on LPB's observations that the strategies currently used in dealing with financial crises have significant negative implications: deposit insurance schemes encourage risky loans, bailout banks encourage 'too big to fail' financial institutions to take additional risks and increase capital requirements without managing loan details to be more careful.

There are three types of mutual funds in this proposal, first is cash mutual funds, this account is not for buying or selling securities, but only fulfilling the functions of the bank's payment system. The second form is mutual funds insurance. The third type is mutual funds that can sell any form of investment. Mutual funds take credit functions from banks. Mutual funds buy and sell

[17] Kotlikoff, L. J. *Jimmy Stewart is Dead: Ending the World's Ongoing Financial Plague with Limited Purpose Banking*. Hoboken, N.J.: Wiley. 2010).

securities that have been valued by public institutions such as the Financial Services Authority (FSA)

The Financial Services Authority is a new authority that has the responsibility to assess the value, rating, certification, verification, and evaluation of all the securities sold (including foreign securities). Cash mutual funds are mutual funds that only hold cash and are used for payment systems and are not charged interest. Cash will be made by a third party, supervised by the FSA. This money can be accessed through an ATM, check or debit card. Every deposit insurance scheme can be eliminated and bank runs can be avoided. All of these activities are under the full control of the central bank.

The types of mutual funds insurance in this proposal take two forms. The first form is closed-end mutual funds. Shares purchased in this type will be paid according to the total amount collected. Payments depend on individual and economic conditions, and increase risk sharing. Mutual funds can vary in risk and return to each individual with different levels of needs. The second form of mutual fund insurance is pari-mutuel closed-end funds. This form is offered to "allocate aggregate risk through direct mechanisms or betting (derivate betting)".[18] The payment for investors in this form depends on whether their 'bets' are correct, the total amount collected, the cost of the mutual fund and the relative amount invested. This mutual fund can also vary in risk and return.

Fractional Reserve Free-Banking: Islamic A-F Model approach

The application of fractional reserve banking rests on a theoretical foundation built from financial intermediary theory. This theory actually has weaknesses that cause asymmetric information or imperfect information. In the technical level in banking,[19] especially in conventional banking, the process of risk asimetry information engineering has been carried out by transferring the risk to the customer.[20] This engineering process is generally known as the imposition of interest (interest). In other languages, the imposition of interest is an attempt by the bank to transfer risk (risk shifting) to another party, in this case the customer.

On the other hand, Islamic Banks which in the past three decades have stood up in various regions, both global and local in nature,[21] have a risk engineering

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[18] Chamley, C., Kotlikoff, L. J., and H. Polemarchakis,"Limited Purpose Banking– Moving from 'Trust Me' to Show Me' Banking." *American Economic Review: Papers & Proceedings* 102, no. 3 (2012): 1–10.

[19] Claus, I., and Arthur, G., "Asymmetric Information, Financial Intermediation and the Monetary Transmission Mechanism: A Critical Review, New Zealand Treasury," *Working Paper* 03 (2023).

[20] Cochran, J. P., Steven T. C., and Fred R. G. *Credit Creation Or Financial Intermediation?: Fractional-Reserve Banking In A Growing Economy*, *The Quarterly Journal of Austrian Economics* 2, no. 3 (1999): 53–64.

[21] Venardos, A. M., "Islamic banking & finance in South-East Asia: Its development & future," (2012). World Scientific, Kammer, M. A., Norat, M. M., Pinon, M. M., Prasad, A., Towe, M. C. M., and Zeidane, M. Z. (2015). Islamic finance: Opportunities, challenges, and policy options no. 15. International Monetary Fund, and Abedifar, P., Ebrahim, S. M., Molyneux, P., & Tarazi, A., "Islamic banking and finance: Recent empirical literature and directions for future

process that is relatively different from conventional banks. If Conventional Banks apply interest, then Islamic Banks have more varied products, such as murabahah (buying and selling), mudharabah and musyarakah (profit sharing), and ijarah (leasing).[22] Different risk engineering processes, of course, should have a role and function between Conventional Banks and Sharia Banks as different institutions. Because technically, if the process of risk engineering carried out by Islamic banking still remains an intermediary pattern as the conventional bank, then what happens is a discrepancy. This is due to the more varied characteristics of sharia banking products, such as fixed (margin and fee) and fluctuations (profit sharing), in contrast to Conventional Banks, which only have one fixed characteristic.

There are several arguments that cause the discrepancy. First, variations in Islamic banking products, such as fixed (margin and fees) and fluctuations (profit sharing). Profit sharing system in Islamic banking is a system whose results are highly dependent on fluctuations in the final results of financing. The final results of financing are very volatile depending on the stability of macroeconomic conditions and their long-term nature. While funding funds (*wadiah* and *mudharabah* deposits) are generally short-term in nature. This sort of thing will technically disrupt the process of system stabilization and financial management in banks. Because it will cause a mis-match maturity (time period mismatch). Moreover, all this time funding funds collected from the public are combined into one account, assuming the funds have become "the property" of the bank. Thus, the Bank is the only one who has the right to manage and allocate these funds to the productive sector.

In conventional banking, this is not a serious problem, because risk engineering has been carried out with a shifting risk pattern, i.e. transferring risk to other parties. However, in the view of sharia, shifting risk as carried out by conventional banking is not allowed, because it displays an unfair contract. If so, what should Islamic banking do, in order to remain financially stable? To answer this question certainly requires special research. But at least, so far, Islamic banking has been helped by fixed-pattern murabaha products. Secondly, the issue of profit equalization reserve (PER) in Islamic banking (Indonesia) indicatively shows that the profit sharing system is too risky if implemented totally.

The second argument that causes a mismatch is a normative issue. The normative issue here questions the role and rights of Islamic banks. So far, funding funds raised from the community are owned by the community. In other words, Islamic banks still have obligations to customers to keep customers' money safe and customers also get incentives (from wadiah usually known as bonuses). In role, this practice is known as tawaruq. The location is similar to the absence of initial capital, and banks are known as financial institutions that have

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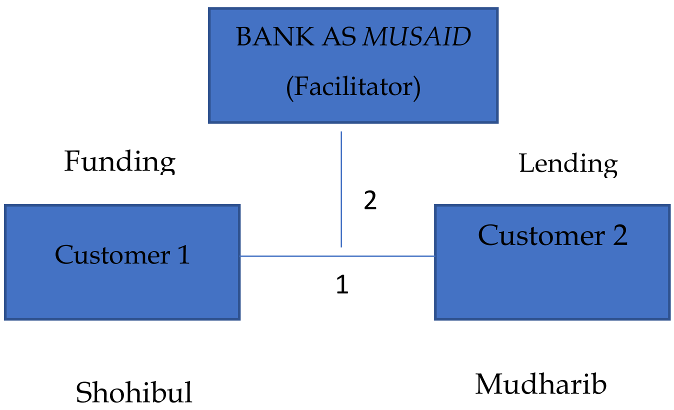
research," *Journal of Economic Surveys* 29, no. 4 (2015): 637-670, Hassan, M. K., and Aliyu, S., "A contemporary survey of Islamic banking literature.," *Journal of Financial Stability* 34 (2018): 12-43.

[22] Choudhury, M. A., and Mostaque, H., "a paradigm of Islamic money and banking," *International Journal of Social Economics* 32, no. 3 (2005): 203-217.

links to productive financing. In fiqh literature, the law is included in the *khilafiyah* category.[23] Secondly, as an intermediary institution, Islamic banks get profit from the difference between the profit sharing ratio of banks as mudharib and banks as shohibul maal. During this time the ratio between banks as mudharib and customers is very dependent on the level of profit sharing ratio for banks as shohibul maal. This shows that with a profit sharing system, the last customer will pay a higher cost or share the results will be less. Normatively, this practice, if explored more deeply, falls into the category of less ethical.

Based on the arguments above, clearly, it is not the sharia banking product that is less ethical, but the position and function of the Sharia Bank as an inappropriate intermediary. Based on empirical and normative facts, Islamic Banks should develop new patterns, so that the more varied Sharia Bank products can be appropriate and ethical. Based on this research, the researcher recommends the functions and roles of Islamic Bank institutions as agents or wakalah function and musa'id role Implicatively, agency theory, the role of role and intermediary there are differences. If the intermediary function is limited to bridging, it tends to be passive, not the case with agency and musa'id roles, which are more active and have a position among customers. This approach is then called the A-F (agent and ficilitator) model.

In Islamic Bank practices, the A-F model approach can be a solution to heterogeneous Islamic Bank products and can solve problems that still cannot be solved. For example the parallel mudaraba case, the position of the Sharia Bank in the *musa'id* role (facilitator) as a service provider to facilitate customers as shohibul maal and customers as mudharib. For more details can be seen in the picture below:



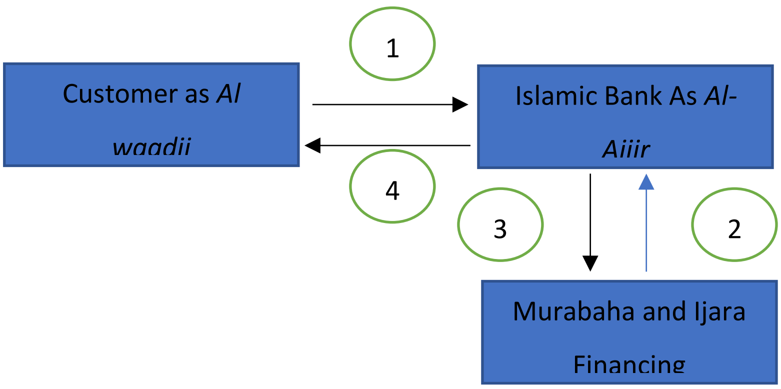
Picture 1: Sharia Bank Profit Sharing Financing Scheme With Facilitator (F-Model)

[23] Siddiqi, N., "Economics of Tawarruq, How Its Mafasid Overwhelm The Masalih," A position paper to be presented at the Workshop on Tawarruq: A Methodological issue in Sharī`a-Compliant Finance February 1 (2007).

The picture above explains the flow of financing with a partnership-based pattern, where Islamic banks no longer function intermediaries, but become musa'ids (facilitators). In this scheme, the parties sharing the results are between customers. The first channel, the customer determines the profit sharing ratio that is directly facilitated and represented by the contract to the Islamic Bank. Second, the Party that shares the results, pays a fee to the Sharia Bank as an institution providing services, information and profit sharing facilities. The uniqueness of the Bank's position as musa'id is:

1. The bank has a fixed profit or ribhun from the sale of services and information as a facilitator;
2. Banks obtain ribs in accordance with sharia and propriety standards;
3. The Bank does not recognize liquidity risk, because the financing period will automatically adjust;
4. Neither party is prioritized;
5. The dual role of the Bank as shohibul maal and mudharib is replaced by musa'id (facilitator), a single role;
6. Automatically long-term, risky funds are combined in one account, so they are not confused between short-term wadi'ah funds;
7. Financing based on the real sector.

Secondly, the case with wadi'ah fund raising products. As long as it is understood, in wadi'ah language means deposit. Basically, it is the requester (customer) who pays his obligations, because he has left or saved his money at the Sharia Bank. But, empirically, it is the practice in the field that the requester gets an incentive from the Sharia Bank, in the form of a bonus. This happens, because during this Sharia Bank follows an intermediary pattern, as if the Sharia Bank has an obligation to provide incentives. The more incentives provided, the better, because it will attract customers to save at Islamic banks. This practice will be more rational and profitable, if the Islamic Bank positions itself as an agent or representative of savers to allocate funds collected from the community. For more details can be seen in the picture below:



Picture 2: Islamic Bank Wadi'ah Fund Financing Scheme Agent (A-Model)

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The picture above explains the flow of Islamic Bank financing using danawadi'ah. First, the customer saves funds in a Sharia Bank with a wadi'ah contract. Second, the Sharia Bank as a representative of the customer, allocates funds and funds to fixed financing (murabahah and ijarah). Third, murabaha financing and ijarah produce margins and ujrah from customers. Fourth, Islamic banks hand over margins and ujrah to customers after deducting the right of *Ujrah* Bank of the Bank as agents or representatives of the customers who have been set at the beginning of financing.

The uniqueness of Islamic banks as an agent or representative in the collection of wadi'ah funds as follows:

1. Islamic banks get fixed fees or ujrah from services as *al-ajir* (agents);
2. Automatically short-term funds (savings) are incorporated into safe and no-risk financing because they are only allocated to murabahah and ijarah financing, each of which has an underlying asset;
3. Its role is single, bound to the financing carried out, if murabaha, the Sharia Bank becomes a trader or ba'i and if ijarah, the Sharia Bank becomes a mustajir;
4. Profits from murabahah financing and ijarah financing will be allocated to customers who hold *Wadiah* savings, after deducting the *ujrah* that has been determined to be the right of the Sharia Bank;
5. The customer has the right to determine the desired level of margin and can choose between Sharia Banks;
6. Islamic banks are more competitive by making customers the main customers;
7. Financing based on the real sector.

CONCLUSION

From the explanation above, it can be concluded that fractional reserve banking is a modern banking system that is loaded with the risk of economic recession because it was built as a pseudo-financial container and has implications for the bubble economy. So in seeing this phenomenon, the thinking of Positive Money, the New Economics Foundation, Narrow Banking, LPB (Limited Purpose Banking), and the Chicago Plan together contribute controversial thoughts to the banking monetary system, namely in the form of fractional reserve free-banking. According to some of these thoughts, the source of modern economic instability currently lies in the fractional reserve banking system that is applied in commercial banking throughout the world through the ability to create money, so that the money supply shifts from its balance point. Not unlike the problem of conventional banks, Islamic banks also face the risk of 'too big to fail', given that Islamic banks are still intermediaries. This means that the risk of liquidity and bank runs is very high. This is reinforced by Sharia Bank products that are more varied than those of conventional banks, so there needs to be an effort so that Islamic banks transform themselves from fractional reserve banking to fractional reserve free banking.

As a suggestion, Islamic banks should build a financial resilience system based on sharia principles by implementing fractional reserve free-banking. The limitations of this research are limited to a comparison of several fractional reserve free-banking theories and proposals for a non-intermediary Islamic banking system. For further research, it is hoped that the proposed A-F model approach can be empirically tested for the level of resilience in Islamic banking practices.

Author's Contribution

Faiza Husnayeni Nahar: Contributing to formulating research ideas, collecting data, writing systematics, research methods, and the language proofread.
Ayif Fathurrahman: Contributing to processing data, and interpreting data, and analyzing interpretation results.

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Declaration of Competing Interest

The author declares that there is no conflict of interest.

Ethical Approval

Ethical approval No patient-identifying parts in this paper were used or known to the authors. Therefore, no ethical approval was requested.

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