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AN ECONOMIC THEORY OF ISLAMIC FINANCE

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ABSTRACT

We have demonstrated by using macroeconomic, banking and finance theories that Islamic finance, when applied according to our paradigm (Al-Jarhi, 1981) would have distinct advantages. In addition, it provides a justifiable prescription for reforming the contemporary market economy.

The advantages of Islamic finance formulated above, although noteworthy, are not sufficient to induce Islamic bankers to be true to Islamic finance. The reason is that such advantages are mostly external and can only induce behavior after being internalized. An important policy implication is that such internalization is left to banking and finance regulators. Only when the license of Islamic banking is strictly enforced by the monetary authority that Islamic bankers would stop mimicking conventional finance.

Our main policy implications are only one headline that requires more detailed explanation that is found somewhere else (Al-Jarhi, 2014). In addition, some Islamic finance contracts require special guidelines in order to reduce the amount of information asymmetry associated with them. In addition, certain modifications have to be introduced to the corporate governance of Islamic banks, especially in allowing investment account holders to be represented on their boards of directors.

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INTRODUCTION

Conventional finance, based on the classical loan contract, has been practiced in the ancient world for centuries. Only in the seventeenth century, it has been institutionalized in the form of banks as we know today. Meanwhile, interest-free Islamic finance has started with the dawn of Islam, based on a number of investment and finance contracts. Yet, despite its continued application, it has not taken the form of banking until 1975 (Chachi, 2005). The longer experience with conventional finance and its wide-ranging prevalence in the world, raises questions regarding the economic rationale of Islamic finance.

Islamic jurisprudence offers little in this regard, beyond the concept of justice underlying the prohibition of interest. In economics, there is a need to present Islamic finance as a choice or alternative to conventional finance. Such need becomes more obvious as Islamic finance involves higher contractual and transactions costs. Instead of using one standardized contract, like the classical loan contract, it uses up to sixteen contracts with the possibility of mixing and matching in some financing transactions.

This paper, uses results drawn from price, monetary, banking and finance theories to compare both conventional and Islamic finance in order to ascertain whether the latter has concrete advantages for the single bank and/or the macro economy to justify its use. The paper lists certain economic advantages that makes Islamic finance the better choice. However, this does not mean that Islamic finance will automatically become the choice of banks and financial institutions. First, its advantages cannot be captured by individual banks, as they are mostly external to the individual decision-making units. Without ways to internalize such external effects, banks will find little incentives to

seek macroeconomic benefits that bear only indirectly on their financial statements. Second, policymakers must be sufficiently convinced of the existence of such advantages before sanctioning the use of Islamic finance. The regulation and supervision of Islamic finance is more involved than that of its counterpart. Regulators must watch out for certain peculiarities in order to make their regulation of Islamic finance effective.

Using a mixed banking system, where both Islamic and conventional finance are allowed to freely compete is one solution, however, the paper points out few hurdles that must be surmounted.

Finally, the paper lists some policy recommendations for the monetary authorities and financial regulators in order to make the most benefit from the use of Islamic finance.

The first section of the paper details what we can learn from monetary, banking and finance theories with regard to Islamic finance. The second section attempts to list the advantages of Islamic finance, based on these theories. The third section discusses the problems associated with a mixed banking and finance system and how they can be surmounted. The last section draws policy recommendations.

The paper builds on the authors earlier contributions on the subject, particularly, Al-Jarhi 1981 and 2004.

WHAT WE CAN LEARN FROM ECONOMIC THEORY

I. THE RATE OF INTEREST

Islamic finance starts from one basic concept that is to avoid trading directly present for future money. Finance is provided in the form of money in return for either equity or rights to share proportionately in future business profits. It is also provided in the form of commodities delivered in return for commitment to repay their value at a future date. It is further provided against a commitment to deliver or manufacture commodities.

Can we find anything in economics that justify apprehensions about trading present against future money at a premium, which is the rate of interest?

Until the middle of the twentieth century, it seemed to everyone that no wrong could be found with the system. However, in search for optimal monetary policies, economists stumbled on the relationship between the level of the rate of interest and the optimality of resource allocation. Monetary economists found that a zero nominal interest rate is a necessary condition for the optimal allocation of resources (Friedman, 1969)¹.

The reason is simple. In a world of fiat money, adding one marginal unit of real balances costs no real resources to the community. Therefore, imposing a positive price on the use of money would lead traders to economize on the use of money in transactions, in their pursuit to minimize their

¹ Paul Samuelson (1958) reached a similar conclusion earlier than Friedman, using a consumption-loan model.

transactions costs². However, when the rate of interest is zero, traders will have no incentive to substitute real resources for money. Additional real resources can therefore be directed to consumption and investment.

It has also been found in general equilibrium models that a zero interest rate is both necessary and sufficient for allocative efficiency (Cole and Kocherlakota, 1998; Wilson, 1979). These theoretical results are dependent on some simplifying assumptions. Yet, they are robust in a variety of models (Correia and Teles, 1997).

In Milton Friedman's words, "*Our final rule for the optimum quantity of money is that it will be attained by a rate of price deflation that makes the rate of interest equal to zero.*"³ Friedman goes further to suggest steadily contracting the money supply at a rate equal to the representative household time preference (Friedman, 1969, p. 34 quoted by Ireland, 2000).

Such policy rule clearly implies that the optimal rate of inflation is negative. However, Central bankers would never seriously advocate a long-run policy of deflation (Wolman, 1997).

One problem with such policy is the existence of a liquidity trap when the rate of interest is zero (Uhlig, 2000). Several economists point out that deflationary policies have to be exercised only asymptotically in order to apply the Friedman's Rule (Cole and Kocherlakota, 1998). Even if the

² If a supermarket were faced with an increase in interest rates, it would attempt to collect cash faster from its tellers and rush it more often to the bank, using more labor (people who collect cash as well as security guards) and capital (armored cars). Obviously, the withdrawal of real resources from production into transactions reduces total output and efficiency (Al-Jarhi, 2016).

³ We have brought this quotation in order to show that what is intended is not to impose a zero rate of interest on the national economy, but to reach the desired level through the process of deflation.

asymptotic conditions are not fulfilled, short-term constraints on monetary policy can do the job (Ireland, 2000). Another problem is that when the rate of interest becomes very low, monetary authorities have less leeway with adjusting it downwards in the face of recession. Some economists propose alternative ways to overcome the zero-bound interest rates (Goodfriend, 2000), but such problem appeared to be tougher than previously thought few years after the onset of the International Financial Crisis of 2007-2012. Another problem is that deflation has efficiency problems parallel to those of inflation, even at very low interest rates (Lucas, 1994). However, the welfare cost of implementing a zero rate of interest are claimed to be negligible (Wolman, 1997).

Many economists appear convinced that practical and conceptual problems involved with zero interest rates are all surmountable. Nonetheless, monetary authorities are not yet impressed. No monetary authority has so far come forward to adopt the optimal monetary policy rule⁴.

II. RISK-SHARING AND MARKET STRUCTURE

Risk sharing is a basic feature of the Islamic economic system. In the financial sector, households provide their funds to financial intermediaries on a profit-and-loss-sharing, PLS, basis. Financial intermediaries supply funds to their users partly on PLS and partly on sale-finance basis. Islamic finance is sometimes likened to a participatory sport in contrast to conventional finance, which is likened to spectators' sport (Al-Jarhi, 2004).

⁴ Economists also recommended the application of 100 percent required reserve ratio. However, policy-makers have not been impressed, despite the obvious benefits.

It would be an interesting proposition to test whether the relative predominance of risk sharing in an economy increases its efficiency. Despite difficulties, Kalemli-Ozcan et al., 1999) have developed an interesting scheme to fulfill the same purpose.

They find a positive and significant relation between the degree of specialization of individual members of a group of countries, provinces, states, or prefectures, and the amount of risk that is shared within the group. Their regressions confirm that risk sharing *facilitated by a favorable legal environment and a developed financial system* is a direct causal determinant of industrial specialization.

Risk sharing therefore furthers specialization, thereby raising the efficiency of the economy as a whole. In Islamic economic systems, risk sharing goes beyond the mere integration of capital market. It should be more prevalent through the financial market structure, producing more specialization and greater overall efficiency.

The conventional finance sector is almost void of risk sharing. On the resource mobilization side, fund owners provide their financial resources on the basis of the classical lending contract. Accordingly, banks taking deposits would guarantee both principle and interest on their customers' deposits. On the resource use side, conventional banks provide finance on the same basis. Banks would not enter into risk-sharing arrangements with entrepreneurs. Instead, they take risk only on collateral and not on entrepreneurial activities. Generally, banks do limited monitoring of their borrowers, in order to minimize default risks.

Similarly, in the bond market, bond issuers guarantee the payment of principal and interest, while bondholders do not

share in the business risk of bond issuers. Bondholders meanwhile do not monitor bond issuers. Trading bonds in an open market provides information that can be collected and analyzed by bondholders. Monitoring the market of a certain bond appears to be less expensive than monitoring borrowers by banks. That is probably why bondholders are willing to accept lower interest rates than do banks. Consequently, Corporate bonds as a share of total credit market instruments averaged about 58 percent between in 2013, compared to 10 percent to bank loans the US (Contessi et al, 2013).

We can therefore conclude that most of financing in conventional economies is conducted in the unmonitored section of the financial sector, namely the bond market. However, banks still provide some resources.

Corporate bonds Risk sharing is found only in the stock market, where shareholders presumably share in the profit and loss of the firms whose stock they hold.

III. BANKING AND FINANCE THEORIES, INFORMATION ASYMMETRY & THE LEMON PROBLEM

According to banking theory, those who obtain debt finance (finance users) are better informed about the use of funds they obtain than finance providers. Therefore, debt finance can be riddled by information asymmetry leading to default. In parallel, equity finance provider can be exposed to investing in a losing venture. Equity finance therefore may be riddled by losses.

In such a world, an entrepreneur who is more informed than the supplier of fund would use internally available funds to invest in the firm. He would also prefer to use debt finance when more funds are required (Razin et al, 1998). The reason

is that using equity finance would be interpreted as a belief that the stocks of the firm are overvalued. It remains to show how investors handle the lemon problem or the risk of loss in the case of equity finance, and how the fund provider handles the problem of information asymmetry.

Usually information asymmetry in debt finance is reduced through monitoring. However, complete monitoring of fund users would be extremely costly. In order to do any significant amount of monitoring, banks will have to raise the lending rates of interest to cover the extra monitoring costs. Handling the lemon problem is much easier through the conduct and review of feasibility studies.

Since debt and equity finance has its own problem, the former has the information asymmetry problem and the latter the lemon problem, the relative use of each will depend on the relative ease each of the two corresponding problems can be attenuated.

The lemon problem of equity finance can be handled by two tools. The first is feasibility studies for new projects or financial analysis for existing firms. The second is governance. This particular tool has been used by universal banks⁵ as they take equity in companies to influence their governance and insure their profitability. Information asymmetry can be handled through extensive monitoring, which could be rather costly. An innovative and less expensive approach has been used by universal banks, which is to take equity in a company and provide it with debt

⁵ Universal banks are defined as “large-scale banks that operate extensive networks of branches, provide many different services, hold several claims on firms (including equity and debt), and participate directly in the corporate governance of the firms that rely on the banks as sources of funding or as securities underwriters, “(Calomiris, 2000).

finance. In this manner, universal banks solve the lemon and information asymmetry problems simultaneously.

We can now turn to some issues that have been raised with regard to universal banking. The starting point is that universal banking eliminates information asymmetry and the associated risks of adverse selection and moral hazard.

Adverse selection can be avoided by careful screening of finance applicants. When a bank provides equity and debt finance simultaneously, it will have more access to information than when only debt finance is provided. We can therefore conclude that screening would be more effective and adverse selection less probable with universal banking.

Reducing the possibilities of moral hazard requires monitoring the firm that obtains finance. All three kinds of *ex ante*, *interim* and *ex post* monitoring must be exercised to be effective (Aoki, 2013). Equity finance provides the bank with access to information necessary to practice monitoring at all intervals. That explains why the research of Dewenter and Hess (1997) supports the idea that relationship (universal) banks are more effective monitors than transactional (commercial) banks.

Equity finance also reduces the firm incentives to substitute riskier for safer assets. Meanwhile, debt finance would reduce the firm incentives to hide its profits. Furthermore, when the firm faces problems, the bank, as an equity holder, will assist in order to protect its investment.

In summary, banking theory indicates that universal banking would be exposed to lower levels of moral hazard and adverse selection. In addition, by sitting on the firms' board of directors, banks could influence corporate

governance in the whole productive sector, leading to improvements in economic performance.

Empirically, it has been found that using a combination of debt and equity finance by banks seems to carry several advantages to both banks and firms, confirming theoretical findings. Banking theory would indicate that banks would be relatively more exposed to adverse selection during economic upturns and to moral hazard during downturns. Applied research has found that universal banks face lower risk than commercial banks during both upturns and downturns. In addition, the risk differential between universal and commercial banks gets wider and more significant during downturns (Dewenter and Hess, 1997)⁶.

PRICE AND MONETARY THEORY

Another contribution in price and monetary theories is the distinction between nominal, real and semi real transactions (Al-Jarhi, 2002). Nominal transactions have two nominal (monetary) countervalues. One example of a nominal transaction is when spot money is traded against future money. Another example is when the price of a gamble is paid as present money against the payoff of the gamble which is usually paid in the future, as in the case of derivatives. When both countervalues are deferred, market authorities set safeguards to insure that both parties to the gamble will pay their obligations. Whether nominal transactions are carried out in an organized financial market or in a gambling casino, their ultimate results are distributional between gambling parties.

⁶ For an exposition of the main issues regarding universal banking, see Appendix II

The macroeconomic effects of nominal transactions take two forms. In the first form, the growth in the volume of nominal transactions will encourage investments in the gambling industries and associated services. In the financial markets, more investment would also be directed to accounting, clearing mechanisms, strategic trading mechanisms and enforcement mechanisms usually associated with this type of transactions.

The redistribution of wealth would have effects on the consumption pattern in the economy and motivate reallocation of resources that caters to the tastes and preferences of the social group that gains wealth against the rest of the society.

The important result is that trading present for future money is always done through nominal transactions. Whether a debt instrument or a risk associated with some gamble is traded in the financial market, the related transaction has two nominal countervalues, one on each side.

Real transactions have only one nominal or monetary countervalue, while the other is always a commodity. Such transactions provide important indicators for the allocation of resources. When the rate of monetary expansion increases, more money is available for spending either directly or through the increase in the availability of finance. Spending would increase on commodities as well as on debt and risk trading.

An increase in spending on commodities is done through real transactions, which become the chariot of the transmission mechanism from the changes in money supply to commodity markets directly. The more spending increases go through real commodities; the faster commodity markets

would move to a new equilibrium. However, the more spending is directed to debt and risk trading, the greater the leakages as spending on commodities would await the conduct of financial market games and the resulting payoffs. Those gaining wealth would, after some delay, increase their commodity purchases by carrying out more real transactions. Such delay and leakages to nominal transactions slows the speeds of adjustments in commodity markets.

Therefore, the effect of policy actions leading to an increase in monetary expansion on commodity markets would depend on how much of the increase in the money supply goes into nominal versus real transactions.

Semi real transactions can be defined as the exchange of one currency for another currency, where both countervalues are paid spot. Trading currencies against each, where one or both of the countervalues is deferred, would be considered a nominal transaction. Spot trading of currencies would be for the purpose of paying for commodities across the borders. They, therefore, have the same effects of real transactions. Meanwhile, currency trading with deferred payments would be for the purpose of debt or risk trading.

A CONCISE ISLAMIC FINANCE MODEL

I. GENERAL FEATURES

The prohibition of Reba entails an institutional structure that remains based on market mechanism, but has features that replace interest-based finance with interest-free finance. The institutional structure should be sufficiently

comprehensive to encompass money creation and allocation, as well as monetary and fiscal policies (Al-Jarhi, 1981)

A. ISSUING AND ALLOCATION OF MONEY

Drawing from Al-Jarhi, 1981, the Islamic monetary system will have a central bank and member banks. Money is issued in the form of central bank investment deposits, CD's with banks, placed on the basis of profit and loss sharing, PLS⁷. the return on CD's will flow back to the central bank as seigniorage for the ultimate benefit of government budget.

In order to fulfill the Islamic economic rule that wealth redistribution must be justifiable, and to provide the central bank with full and direct control over the money supply, and to avoid the use of monetary policy tools that would lead to drastic changes in the money supply, the fractional reserve system is replaced with total reserves.

The central bank issues money-market instruments whose proceeds would be added to the central deposits, which we will call central deposit certificates or CDC's. Such instrument would be negotiable in secondary market and available to banks and the public for investment.

Like the central bank, the public places their fund in investment accounts, based on PLS. the public can also hold CDC's. in addition, they can place demand deposits with banks which are used for transactions services and earn no return. On the fund-use side, people can finance their activities, based on one of sixteen contracts, which are listed in Appendix I.

⁷ All 16 Islamic modes of finance are listed and annotated in the appendix.

What happens to government budget deficit? First, the government finances its income generating activities through banks. Even infrastructure projects can be made income generating in order to attract finance on market terms. Second, citizens could be encouraged to establish Awqaf, or public foundations to provide public services, especially education and health⁸. To the extent such Awqaf are encouraged, the government will limit its activities in this regard to setting standards for education and health services.

Redistribution in favor of the poor is done outside the market mechanism, through the collection of Zakah, for which banks become custodians as well as authorized to use the proceeds to finance micro projects whose titles are transferred to the poor in order to make them self-employed and self-sufficient as well.

There will be no integrated debt market, nor risk trading would be allowed. The central bank, having an exclusive power to control the money supply, can gauge the rate of monetary expansion to the rate of growth in order to target absolute price stability.

EFFICIENCY OF ISLAMIC FINANCE

⁸ Private foundations are considered to be perpetual after-life charity, that earn rewards from God while their founders are dead. That is why Muslims have been keen to establish them. In the past, most of health and education services were provided through private foundations.

I. MACROECONOMIC EFFICIENCY

A. EFFICIENCY AND ECONOMIZING ON CASH IN TRANSITIONS

At the macroeconomic level, Islamic finance avoids the use of interest-based lending. The rate of interest is replaced by the rate of profit on partnership and PLS finance, markups on credit-purchase finance and rental rates on leasing finance⁹. They reflect the time-value of money not against itself, but against commodities.

The main purpose of the Friedman optimal monetary policy rule (to deflate the economy at a rate equal to the real rate of interest), is to prevent agents from substituting real resources for money in transactions, as this would reduce total output below the optimum level. Those who deposit their money in banks do so in the form of *saving and investment accounts* which are based on PLS. In this case, the rate of return would be uncertain. Neither the principal nor the return on such accounts or deposits is guaranteed. There would be no incentive to reduce the use of cash in transactions in order to gain more income with certainty, as in the case of the classical loan contract.

B. EFFICIENCY & FINANCIAL RESOURCE ALLOCATION

Conventional finance allocates financial resources with paramount regard for borrower's ability to repay loans, both principal and interest. In the modes of Islamic finance that are based on equity and PLS, focus would be on the profitability and rate of return of the concerned investment. This type of finance has the potential of directing financial

⁹ Such rates of return must be somehow related. They are all market determined and should not be subject to price-setting by policymakers.

resources to the most productive investments. It would increase the efficiency of the financing process and reinforce efficiency in the real sectors.

Modes of Islamic finance that are based on commodity acquisition, used in an open market with sufficient competition among fund users, the cost of finance¹⁰, will depend, at the margin, on the relative value in use of each commodity, whether in consumption or production. Resource allocation would again be optimal. No finance would be provided for debt or risk trading.

STABILITY

A conventional bank has on the one hand liabilities that include demand, time and saving deposits, which the bank guarantees. On the other hand, it has assets that are mostly composed of debt instruments each of which has quality that depends on the ability of the corresponding debtor to repay. Default on the asset side, if it happens in significant proportion, would imply the inability to meet the bank's obligations on the liability side. Such default can be expected at times of crises, be it of macroeconomic nature or caused by circumstances specific to the bank.

A bank operating according to Islamic rules of finance has liabilities of different nature. Only demand deposits are guaranteed. Meanwhile, saving and investment deposits are placed on PLS basis. When a bank faces macroeconomic or bank-specific crises, investment depositors automatically share investment and default risk on the asset side. The bank is less likely to fall and a bank run is less probable. It

¹⁰ Markup rates and rental rates.

can therefore be said that an Islamic banking system is relatively more stable when compared to conventional banking (Khan, 1986).

In conventional finance, there is an integrated debt market that has grown immense in size as well as in scale of integration. Many experiences, as lately manifested in the International Financial Crisis (2008-2012), have shown that integrated debt markets are sources of both domestic financial instability and contagion. Some economists have come forward with proposals to place restrictions on capital movements in contrary with what has been considered in economics as received doctrine.

In contrast, debt is created in Islamic finance through selling commodities on credit. Resulting debt instruments are negotiable only at face value. There is a credit market for each commodity in which the demand and supply *to buy it on credit* determines a *mark-up rate*¹¹ for it, resulting in fully segmented credit markets¹². The absence of sudden and mass movements of funds as well as risk trading, rules out instability and contagion.

We have noted above that Islamic finance never provides present money in return for future money. All Islamic modes of finance involve money on the one end and commodities on the other¹³. Monetary flows through Islamic financial modes are directly tied up with commodity flows. In other words,

¹¹ The mark-up rate is the difference between the spot price and the deferred price as a percentage of the spot price.

¹² At maturity both countervalues, *viz.*, debt and its nominal value would be spot and equal in amount, thereby fulfilling the necessary conditions for trading money in Islam. Meanwhile, debt can be swapped against tangible goods or services (according to Imam Malik and Ibn Taymiah, but not for cash).

¹³This meaning includes all sale finance. Partnership and investment agency finance can be considered as money advanced for shares in future income resulting from commodity-related activities.

Islamic finance removes the dichotomy between financial and real activities. This leaves no room for excessive credit expansion, as each finance extended is automatically earmarked for specific uses.

Changes in supply of money by policymakers would automatically be translated into changes in excess demands and supplies of commodities, causing quantities of output produced to respond more quickly to market forces. In other words, markets are more likely to operate efficiently and smoothly. It is therefore interesting to note that Islamic finance, though non-conventional, supports market forces and mechanisms more than does conventional finance.

INFORMATION ASYMMETRY

Assuming no regulatory hindrances, Islamic banks, like universal banks, can carry out both investment and commercial banking activities. Islamic banks would therefore be allowed to provide finance through a combination of modes, enabling them to mix contracts that are free from information asymmetry with others suffering from it. Islamic banks, like universal banks can therefore hold equity in the banks they finance. In this respect, they bear resemblance to universal banks and can be thought to handle the problems of moral hazard and adverse selection better than conventional (commercial) banks (Al-Jarhi. 2003).

FINANCE AND DEVELOPMENT

A. OPERATING AS UNIVERSAL BANKS

Some economists believe that the universal banking that combines all phases of finance can be credited in part for industrial development and economic growth in Germany and Japan. Universal banking is thought to have yielded economies of scope and greater efficiency that provided more finance at lower costs, thereby promoting industrial investment¹⁴. In particular, German banks have been perceived to maintain close, long-term relationships with industrial firms, which influenced banks attitudes towards multi-period optimization (Fohlin, 1998). This opinion is supported by Terrin (1998), but opposed by Fohlin (1998) as well as Miwa and Ramseyer (2000).

The ability to act like universal banking by Islamic banks put their financing activities right in the center of the development process. Bankers in this case become both partners and financiers of entrepreneurial efforts to develop the economy.

Empirical findings seem to confirm this about universal banks. Calomiris (2000), through his study of pre-World-War I Germany, has found that universal banking served to reduce the cost of financing industrialization in Germany relative to its corresponding level in other countries where commercial banking is prevalent. He also found that the financial sector reached a higher level of allocative efficiency in the former than in the latter. We can therefore rest assured that Islamic banks operating as universal banks give better support to development efforts.

¹⁴ For a theoretical analysis of the relationship between finance and growth, see, e. g., 22. Nyankomo (2015), Greenwood and Smith (1997) and Vaona (2005).

B. FUND MOBILIZATION

Many followers of religions that abhor interest (Hinduism, Buddhism, Judaism, Christianity and Islam) hold their funds outside the banking and financial sector, thereby placing their financial resources outside the development process. Islamic finance opens the door to mobilizing such resources, especially in many Islamic countries where they would be otherwise kept idle. Islamic financial products would be both interest-free and ethical¹⁵. This makes Islamic finance even the more effective in resource mobilization to the groups of people interested in both: the avoidance of interest and the involvement in ethical investment.

ADJUSTMENTS TO POLICY SHOCKS

By going deeper into understanding the prohibition of interest, we find that it is really the prohibition of trading present against future money at a premium. One would discover that the prohibition of interest amounts exactly to the prohibition of nominal transactions (Al-Jarhi, 2016).

We can therefore interpret the prohibition of Reba from the economic perspective as the prohibition of trading present nominal (monetary) values against future nominal (monetary) values. This is equivalent to the prohibition of all nominal transactions, which would encompass both debt and risk trading.

¹⁵ One cannot help but notice that the word “Islamic” in this context could have two meanings. The first refers to the quality of the financial product, viz., that it satisfies the Islamic requirements for lawful contracts. The second is that it satisfies ethical standards as defined by religion. In this sense, Islamic finance is equally Christian, Jewish, Buddhist and Hindu.

In an economy with Islamic finance, when the supply of money increases, spending increases both directly and through more financing. In Islamic finance, both spending and finance is channeled exclusively through real transactions. Direct spending means direct cash flows to the commodity sector. Financing would also boost both supply and demand. The quantity and price speeds of adjustment get full throttle, as no cash balances leak to nominal transactions. The transmission mechanism from monetary expansion to spending is direct. In such an economy the speeds of adjustments are swift, and the market mechanism is fully supported.

In contrast, monetary expansion in a system with conventional finance transmits more slowly into the real sector. On the one hand, substantial leakage from monetary expansion flows into nominal transactions, *viz*, debt and risk trading. The final effects on the commodity sector will not emerge until the payoff of gambling games in the financial market reach the pockets of winners. In addition, the first effect of the financing directed to commodity sectors would go to the demand side first. Price speeds of adjustment would be higher while quantity speeds of adjustments would lag behind. Inflation would be the ultimate result, even when the economy is below full employment.

Ultimately, with conventional finance, we have slower speeds of adjustment, biased towards price adjustments. The market mechanism would limb slowly to the new equilibrium, if ever reached.

We can conclude that by prohibiting nominal transactions, Islamic finance boosts speeds of adjustment, as they would also be balanced between quantity and price speeds. The market mechanism is ultimately strengthened.

SYSTEMIC INTEGRITY

Risk is an important ingredient of making investment. In conventional finance, investment is financed through equity (stock market) or through debt (borrowing from banks and issuing bonds). Banks accept only collateral risk. They always avoid bearing the risks of investment failure. Corporate bondholders follow the same rule and their debt carries seniority over shareholders' rights. The result is that risk is left to be borne by few specialists, who are either entrepreneurs or shareholders. Such minority of risk bearers shoulder the brunt of investment failure. Although the per capita risk for the whole society may be low, risk concentration on a small group could be unbearable. The commodity sector would be far removed from the finance sector, as each goes its own way. In other words, the system would be disjoint.

In Islamic finance, banks and financial institutions advancing funds share risk with those receiving finance, including producers, traders, and the like. Islamic finance with *proper corporate governance* would allow depositors some influence on banks investment decisions so that they can share in the decision-making process, by sitting on the boards of directors of firms receiving funds. This change that we have proposed would extend risk as well as decision sharing to both the asset and liability sides of banks (Al-Jarhi, 2014).

We can therefore notice that risk as well as decision-making is spread over a much larger number and wider variety of concerned people. This allows for wider involvement in economic activities, so that people will eventually feel they are partners rather than spectators.

The benefit of wider involvement goes beyond the mere feeling. It adds to the stability of banks. The finance sector would be closely tied to the commodity sector. This affords the economic system compactness and integrity between its different parts.

EQUITY

Islamic banks and financial institutions, by themselves, cannot reduce, let alone, eradicate poverty. However, if given the right tools, they can contribute to the efforts taken by the whole society in that regard.

Islam prescribes a tax-subsidy approach to reducing poverty. A levy called *Zakah* is paid out by those whose wealth exceeds a certain minimum level in proportion to their property or income.

Zakah proceeds are to be earmarked for several uses including income and *wealth maintenance* for the poor. *Income maintenance* is provided provisionally to the poor until *wealth maintenance* is restored. *Zakah* proceeds would be earmarked to finance micro projects whose titles are given to the poor. This method of poverty reduction can be closely intertwined with that of economic development, as redistribution is mostly directed towards making the poor more productive, which in turn contributes to economic development.

Islamic banks can help by acting as custodians of *Zakah* proceeds and in their disbursement. Islamic banks are also mandated to have special accounts for the *Zakah* due on their shareholders' equity. They can even accept direct payments of *Zakah* and other donations on behalf of

depositors and other donors. Banks can then use funds available in their Zakah accounts for the purposes of income and wealth maintenance of the poor.

Conventional lending gives utmost attention to the ability to repay loans. To ascertain such ability, it depends overwhelmingly on the provisions of collaterals and guarantees. Thus, those already rich would have most access to finance. In contrast, Islamic finance providing funds on equity or profit-sharing basis would be more concerned about profitability and rate of return and less concerned about collateral as the primary consideration. Those who are not wealthy, but have worthy investment projects, would have more access to finance.

DEBT SUSTAINABILITY

Conventional debt has certain characteristics that could place debtors in difficulties if circumstances do not allow them to repay in time. Interest is usually calculated on the outstanding balance of debt, usually compounded annually and sometimes at shorter intervals. Delinquent debtors are often subjected to penalty rates of interest, which are higher than regular rates. It is not uncommon to find borrowers who end up paying debt service that is many folds the original principal they borrowed. This is particularly symptomatic credit-card and developing-countries debt, as they continue to face debt problems that sometimes reach crisis levels. Debtors frequently seek debt relief through bankruptcy procedures. Developing countries appeal their cases with creditors clubs in London and Paris.

Conventional debt generally lacks sustainability that has been demonstrated at times of crises, when attention is

usually directed to bailout lenders (banks) and not borrowers.

Debt created through Islamic finance has characteristics that makes it sustainable. Particularly, the total value of debt, which includes the spot value of commodities purchased on credit as well as an implicit mark-up, is set from the very beginning¹⁶.

When debtors face unavoidable circumstances that would make them temporarily insolvent, Shari'ah rules mandate that they are granted free rescheduling and grace periods to help them bring their finances back to order. No penalty fees can be levied in this case.

Due to the information asymmetry associated with conventional finance, moral hazard leads to using borrowed funds for non-prescribed purposes, leading to default. In contrast, the absence of information asymmetry and moral hazard from Islamic finance mandates that the advanced funds are used for their prescribed purpose. Default resulting from improper use of funds would therefore be most unlikely.

REFORM AGENDA FOR CONVENTIONAL FINANCE

Conventional finance has shown exposure to instability and contagion. The latest International Financial Crisis of 2008 was accompanied by widespread bank failure confronted by expensive bank bailout, in addition to a serious recession that lingered for four years after the onset of the crisis. Some

¹⁶ During the International Financial Crisis, had the authorities directed their attention to support debtors instead of creditors, the crises would have stopped without an ensuing serious depression.

economists advanced reform proposals revolving around tighter regulation. Others suggested that capital movements should be curtailed. An interesting opinion goes back to the Chicago plan submitted during the Great Depression.

Given the above analysis regarding Islamic finance, we can perceive that it contains a prescription to the problems of contemporary market economies in the following institutional changes.

1. Replacing the classical loan contract by the Islamic finance contract,
2. Exclusive monopoly of the issuing of money through a government-owned central bank,
3. All issued money is to be placed in PLS investment accounts with banks,
4. The central bank issues central investment certificates, to be held by banks and the public and traded in an open market as an interbank and monetary policy instrument,
5. Debt trading as well as the use of all risk-trading contracts is prohibited in financial markets,
6. Debtors would be granted free rescheduling in case of temporary illiquidity, but penalized in case of delinquency.

This prescription has been taken directly from the features that make Islamic finance enjoy stability and less prone to crises.

MIXED SYSTEMS HURDLES

The eight advantages of Islamic finance appear to be externalities that accrue to the system as a whole, but do not accrue directly to any Islamic bank or financial institution in particular. This creates an incentive problem; Islamic bankers would not be sufficiently motivated to follow the Islamic finance paradigm to the letter. The incentive problem can be solved through some method of internalizing the external benefits.

In mixed systems with the absence of any means of internalization, Islamic bankers have to compete with conventional bankers who use the classical loan contract, which is simpler, requiring fewer procedures and less documentation than the 16 Islamic modes of finance. Strict following of the Islamic finance paradigm would lead a serious competitive loss to IBFI.

In order to maintain their competitive position, they either switch to outright conventional finance, or maintain their nominal brand name and mimic conventional finance. This enables them to streamline procedures, documentation and cut down costs.

CONCLUSIONS AND POLICY RECOMMENDATIONS

We have demonstrated by using macroeconomic, banking price and finance theories that Islamic finance, when applied according to our paradigm (Al-Jarhi, 1981) would have distinct advantages. In addition, it provides a justifiable prescription for reforming the contemporary market economy.

The advantages of Islamic finance formulated above, although noteworthy, are not sufficient to induce Islamic

bankers to be true to Islamic finance. The reason is that such advantages are mostly external and can only induce behavior after being internalized. An important policy implication is that such internalization is left to banking and finance regulators. Only when the license of Islamic banking is strictly enforced by the monetary regulators that Islamic bankers would stop mimicking conventional finance.

Our main policy implications are only one headline that requires more detailed explanation which could be found somewhere else (Al-Jarhi, 2014). In addition, some Islamic finance contracts require special guidelines in order to reduce the amount of information asymmetry associated with them. In particular, certain modifications have to be introduced to the corporate governance of Islamic banks, especially in allowing investment account holders to be represented on their boards of directors.

APPENDIX I: MAJOR CONTRACTS AND PRODUCTS OF ISLAMIC FINANCE

I. INVESTMENT AND FINANCIAL CONTRACTS

The following is a list of Islamic investment and finance contracts briefly described.

A. COMPREHENSIVE PARTNERSHIP

1. **Musharaka** (partnership in profit, loss and management)

1.1. Equity finance, entails;

1.1.1. profit and loss sharing,

1.1.2. sharing in management,

1.2. free from information asymmetry,

1.3. profit distributed in agreed proportion,

1.4. loss is distributed in proportion to capital subscription,

2. **Musharaka Mutanaqessa** (diminishing partnership in profit, loss and management)

2.1. Same as Musharaka, except it is done for a specific period and extinguished gradually every year.

B. LIMITED PARTNERSHIP

1. **Mudaraba** (limited partnership)

1.1. Entails sharing in profit and loss but not in management.

1.2. Limited time horizon, after which it is liquidated,

1.3. Suffers from information asymmetry.

- 1.4. The investment agent (Mudareb) presents a feasibility study regarding the proposed investments, with an estimate of the indicative rate of return.
- 1.5. Requires “*limited partnership guidelines*” that enforces the Mudareb (investment agent) to
 - 1.5.1. Present a feasibility study, estimating expecting returns,
 - 1.5.2. Hold regular bookkeeping,
 - 1.5.3. Present regular reports
 - 1.5.4. Channel all inflows and outflows through an account jointly controlled by the bank and the investment agent,
 - 1.5.5. Guidelines must be applied to place the burden of proof on the shoulders of the investment agent (Mudareb) in cases of negligence and breach of contract, and in particular, when the rate of return falls below the indicative rate.

2. **Restricted Mudaraba** (partnership)

- 2.1. Limited equity investment
- 2.2. Based on profit and loss sharing
- 2.3. The investment agent is bound by explicit restrictions that could be related, among other things, to investment formulas, sectors and geography,
- 2.4. It is subject to information asymmetry. However, guidelines may reduce the extent of the risks involved.
- 2.5. Require *limited partnership guidelines*,

3. **Mudaraba Mutanaqessa** (diminishing partnership in profit and loss)

- 3.1. Limited equity investment

- 3.2. Based on profit and loss sharing
- 3.3. The investment period is set from the very beginning.
- 3.4. The total value of finance is extinguished gradually every year by transferring title from financier to investment agent.

4. **Unrestricted Investment Wakala** (unrestricted investment agency)

- 4.1. The investment expert submits a feasibility study regarding proposed investment activities, with an estimate of indicative returns.
- 4.2. A contract is signed by a fund owner and an investment expert.
- 4.3. The investment agent gets a fixed fee for investment services. He/she can be offered a percentage of the profits over and above a certain *hurdle rate* as an incentive.
- 4.4. This contract is exposed to information asymmetry.
- 4.5. Guidelines must be applied to place the burden of proof on the shoulders of the investment agent in cases of negligence and breach of contract, and in particular, when the rate of return falls below the indicative rate.

5. **Restricted Investment Wakala** (restricted investment agency)

C. PARTNERSHIP IN PRODUCT

1. **Muzara'a** (A joint agricultural venture, based on partnership in agricultural produce)
 - 1.1. It is a form of partnership that is free from information asymmetry.

- 1.2. One partner is a proprietor and the other is a farmer,
 - 1.3. The proprietor provides a piece of arable land and the farmer provides farming labor.
 - 1.4. Working capital (seeds, fertilizers, etc.) can be provided by either party or both in agreed proportions.
 - 1.5. Product is also shared in agreed proportion.
2. **Mugharassa** (partnership in jointly managed plantation fruit or lumber)
- 2.1. One party is a proprietary who provides land.
 - 2.2. Another party is an expert in horticulture, who plants the land with fruit and/or lumber trees.
 - 2.3. Inputs are shared between the two or provided by one party, as agreed.
 - 2.4. The planted land is divided between the original owner and the horticulture expert in agreed proportions.
3. **Mussaqaah** (partnership in fruit and lumber in return for managing a plantation)
- 3.1. One party is a proprietor that owns a plantation.
 - 3.2. Another party is an expert in horticulture.
 - 3.3. The second party takes care of the trees until they bear fruit, through pruning, fertilizing, etc.
 - 3.4. The fruit harvest is divided as agreed.

D. SALE FINANCE

1. **Bai' Bethaman Ajel** (deferred payment sale)
 - 1.1. It is a sale contract,
 - 1.2. The delivery of commodities is done spot.

1.3. Payment of price is deferred.

1.4. The deferred price is higher than the spot price to reflect time preference in the sold commodity.

2. **Murabaha** (cost plus markup sale upon promise to purchase)

2.1. Sale contract on cost plus markup.

2.2. The buyer signs a unilateral binding promise to purchase commodities stating the markup and payment terms.

2.3. The buyer usually pays a deposit or down payment as proof of seriousness.

2.4. Retracting the promise makes the buyer liable for actual damage, which is equal to the difference between the purchase cost to the bank and the sale price to a third party.

2.5. Not subject to information asymmetry.

2.6. Can be used as a camouflage for a conventional loan, especially when the bank appoints the buyer as its agent to purchase commodities.

3. **Ijarah** (operating lease)

3.1. The bank owns or leases an asset from its owner.

3.2. The bank leases or subleases the asset to a customer.

3.3. The customer makes regular rental payments that cover usufruct.

3.4. The customer is responsible for regular maintenance while the bank is responsible for major maintenance.

3.5. Destruction of the leased asset terminates the lease.

4. **Ijarah Muntahia Bettamleek** (financial Ijarah, where the title to the leased asset is gradually transferred in tranches to the lessee)

4.1. The bank acquires an asset

4.2. It leases the asset to a customer, based on operating lease, with a stipulation that the customer purchases part of the title to the property every period, until the title is completely transferred to the customer within a certain date.

4.3. Every period, the customer buys a prescribed part of the asset for an agreed price and pays for it.

4.4. Title is transferred in part every period, but the asset remains mortgaged to the bank until final payment.

4.5. In case of default, the part owned by the customer is sold to a third party for its market price. The lease of the remainder could be transferred to the new buyer.

5. **Istisna'** (command to manufacture goods on specifications)

5.1. A customer commands the bank to manufacture an asset with a detailed list of specifications, as a prelude to negotiate a price and terms of delivery. The price can be paid before, during or after manufacturing.

5.2. Once price and delivery terms are agreed, the bank approaches a manufacturer with an Istisna' subcontract.

5.3. Manufacturing is divided into stages. Each stage is verified through a consultant or the customer. Once a stage is verified, a part of the price is disbursed by the bank.

5.4. After manufacturing is complete, the asset is

handed down to the customer.

5.5. This mode is free from information asymmetry and could be used in project finance and in conjunction with BOT contracts.

6. **Salam** (deferred delivery sale, where price is paid upfront).

6.1. A sale contract where the price is paid upfront and the commodity delivery is deferred.

6.2. It is useful for financing agricultural produce, when the farmer requires finance of cropping.

6.3. The mode is subject to information asymmetry, as money is given to the customer without further control from the bank side.

6.4. When a bank uses Salam as a finance mode, it must arrange for selling the commodities before they are received.

II. CUSTOMERS DEPOSITS IN ISLAMIC BANKING

In addition to demand deposits, which are guaranteed but earn no return, Islamic banks also take saving and investment deposits. While the former can be augmented and withdrawn on short notice, the latter is provided for specific maturities. Investment deposits are either general or restricted. The former are grouped with bank equity in one pool and invested in several ways. Each earns a proportional share of the net profit of the pool. The latter are placed in specific investments chosen by respective depositors and earn a proportional share of the profit on their investment.

In all cases, Islamic banks use the deposits they obtain to provide finance in the modes outlined above and get a proportion of the profit or a commission as a fee.

Islamic banks get a proportion of the profit in compensation for their efforts; the profit-sharing ratio between each bank and its depositors must be therefore set at the outset. This is naturally determined by competition among banks, availability of investment opportunities and alternative investment outlets available outside banks. However, the actual rate of return eventually paid out on Investment deposits is not predetermined. It is closely linked to the performance of the real economy, as finance modes are generally directed to finance trade in commodities as well as the actual production processes. It also depends upon the performance of individual banks in relation to the choice and management of investment.

III. ISLAMIC NON-BANKING FINANCIAL INSTITUTIONS

There can be a variety of non-banking financial institutions that mobilize funds without taking deposits and use Islamic finance modes to provide finance to entrepreneurs. They mobilize funds through selling stocks, mutual shares, and a variety of instruments with a wide choice of risk sharing and maturities.

Non-banking financial institutions have even greater flexibility to deal with equity and partnership than banks, as they are not encumbered with guaranteed demand deposits. The advantages of financing working capital requirements to enterprises in which they hold equity can therefore be more pronounced than in universal banking.

IV. ISLAMIC FINANCIAL INSTRUMENTS

Financial instruments play an important role in reducing transactions costs for both savers and investors. As they can be tailored to the tastes and requirements of both parties, they can drastically reduce the cost of negotiating

terms related to size, maturity, profit-sharing formula, risk profile and other relevant conditions (Al-Jarhi, 1998).

Financial instruments increase the *reach* of financial institutions to fund suppliers and users, enabling institutions to deal with large numbers of customers and thus realize significant economies of scale. This *reach factor* manifests itself through the ability of trading instruments in primary and secondary markets. In this regard, we can find two advantages of Islamic financial instruments over their traditional counterparts.

First, in pricing their services, the issuers of Islamic financial instruments have *wider latitude*. When dealing with savers and investors, they negotiate a profit share between zero and 100. Conventional security issuers, meanwhile, are bound to negotiate a small cut within the much narrower differential between the borrowing and lending rates. Wider latitude enables financial intermediaries to be more effective in mobilizing resources on the one hand and attracting investors on the other.

In a conventional economy, when intermediaries raise the rate of interest to mobilize more savings, they have to charge investors correspondingly higher rates of interest. In Islamic finance, intermediaries can mobilize more savings by offering higher rates of profit sharing to savers; the profit here would be obtained from investment net of all costs including finance costs. Meanwhile, they can entice more investment by offering investors higher profit share, that would implicitly mean lower finance costs. In other words, attracting more saving does not conflict with enticing more investment in Islamic finance. Islamic finance can therefore

be said to have *consistency of purpose* that is missing in conventional finance¹⁷.

It is rather interesting to conclude that financial intermediation in the non-banking sector would imply lower transactions costs and mobilize both savings and investment more effectively than conventional finance.

Financial instruments can take the following forms:

1. Shares in companies:

Shares represent undivided common shares in firms' net assets. In order to be "Shari'ah compliant," a firm has to be established for an acceptable purpose. It should not trade in or produce goods prohibited by Shari'ah. It must not deal with conventional finance.

Since such companies are rarely found, Shari'ah scholars have set some tolerable levels of impermissible activities. Such guidelines are considered transitory; to be modified as more Shari'ah-compliant companies are established.

2. Sukuk

Sukuk are undivided common shares titles to real assets, usufruct, commodities. They can be issued for the purpose of securitizing a bunch of assets, for example leased real estate, machinery, equipment or even projects. Sukuk holders must be the true owners of common shares in the securitized bunch. The securitized basket can also include receivables from Shari'ah compliant activities, debt created through commodity finance and cash. However, tolerance levels of such monetary assets must be observed.

¹⁷ Compare this with the rate of interest, whose reduction encourages investment on the one hand and discourages savings on the other.

3. Other Islamic financial instruments

Shari'ah-compliant fund certificates, syndicated finance certificates as well as any Shari'ah-compliant investment can be securitized into certificates and traded, provided it does not involve the sale of present against future money.

V. RULES OF TRADING IN FINANCIAL MARKETS

Sale and purchase of financial instruments is subject to the same Shari'ah rules applied to the sale contract.

1. Each a sale contract must have a number of pillars, the buyer, the seller, free will of both, the price and the sold item. Sold items must be legitimate property, i.e., assets considered lawful to own by Shari'ah, which excludes liquor, tobacco, narcotics, pork, illegal weapons, services involving pornography and human trafficking.
2. one of the two countervalues (payment of price and delivery of goods) but not both can be deferred, excluding futures.
3. Risk trading, like derivatives, is prohibited.

To investigate the rationale of Islamic finance, we ignore the moral justifications for the prohibition of interest, and focus on the economic consequences of its implementation.

APPENDIX II: ISSUES RELATED TO UNIVERSAL BANKING

The following lists major pro and con arguments related to universal banks' ability to deal with moral hazard and adverse selection.

I. ALTERATION OF CORPORATE CAPITAL STRUCTURE IN FAVOR OF DEBT AND AGAINST EQUITY

Universal banks can facilitate access to information about firms. German universal banks are described as financial supermarkets providing commercial banking, securities underwriting, and brokerage, holding positions on the supervisory boards of joint-stock companies, voting equity shares in proxy for customers, and sometimes taking short-term stakes in companies (Fohlin, 2000b). Theoretically, the presence of universal banking and the resulting bank attachments with corporations, could therefore give some firms more access to external finance thereby motivating them to change their preferences regarding debt finance.

Fohlin (2000b) found that, universal banking is not associated with different leverage nor debt maturity structure. While older firms continue to have lower leverage and short-term debt, bank attachment is not associated with earlier than average reductions in leverage as firms mature or with alterations in the predictors of short-term debt use. The findings offer little support for the idea that formal bank-firm relationships altered the financing options or choices of German industrial firms.

II. COMBINING BANKING WITH TRADE

Barth, Caprio and Levine's (2000) empirical study highlights the negative implications of imposing regulatory restrictions on the activities of commercial banks. Specifically, regulations that restrict the ability of banks to (a) engage in securities activities and (b) own non-financial firms are closely associated with greater banking sector instability. Their analyses, moreover, suggest no countervailing positive benefits from restricting the mixing of banking and

commerce or from restricting the activities of banks in the areas of investment banking, insurance, and real estate.

III. BANK RELATIONSHIP AND FIRM PROFITABILITY

Under universal banking, firms deal with one bank, which is also one of its shareholders. Some economists suspects that such single firm-bank relationship could be less profitable.

Degryse, Hans and Steven Ongena (2000) empirical work suggests that the profitability of Norwegian publicly listed firms with bilateral bank relationships is higher than the profitability of firms with multilateral relationships. This result is quite robust. It holds, controlling for firm age, size, debt, asset intangibility, and Tobin's Q and in a variety of specifications. The result seems confirm an implication of Yosha (1995) and von Rheinbaben and Ruckes (1998). If firms disclose proprietary information to creditors, firms using bilateral financing achieve higher sales profitability than those using multilateral financing.

IV. THE ORGAN BANK HYPOTHESIS

The "Organ Bank Hypothesis," advanced first by the Japanese Economist T. Kato and tested later by Okazaki and Yokoyama (2001), claims that the bank-firm relationship could reflect negatively on the efficiency and stability of the banking system. Okazaki and Yokoyama have found that in prewar Japan that interlocking directorship and auditing between banks and non-banking companies to be very pervasive and more so in large size banks. They also found that interlocking had negative influence on banks liquidity performance and profitability which played a role in increasing bank closures during the Showa Financial Crises of 1927.

In contrast, when studying the German universal banking system in the pre-World War I period, in comparison with the banking system prevailing in the UK and the USA, Fohlin (2000a) finds a different perspective. Her results indicate that universality does not lead to appreciable market power. Concentration in the German banking industry does not in itself produce anti-competitive behavior.

We can therefore conclude that other reasons may explain the Japanese case, and the Organ Bank Hypothesis is by no means generally valid.

V. THE CONFLICT OF INTEREST HYPOTHESIS

Gorton and Schmidt (1996) consider universal banking to be an alternative mechanism to stock market for risk sharing that could provide information to guide investment. In Germany, the stock market has been historically small. Universal banks hold equity as well as proxy voting rights over their customers' stock holdings. They lend to firms and sit on their corporate boards simultaneously. If German banks were acting as substitutes to the stock market, their behavior would improve corporate performance. Alternatively, banks could benefit from the inside information they gather about the firms they lend while exercising monopolistic power over access to external finance. This would lead to conflict of interest between banks and other shareholders, particularly those who have delegated their voting proxy rights.

Gorton and Schmidt (1996) test the conflict-of-interest hypothesis between German banks during the 1970s and 1980s. They find that German banks improved the performance of firms they finance to the extent of their equity holdings. No evidence was found on the conflict of

interest concerning the use of proxy votes. This was the case in their sample of 1974. In 1985, German security markets became more developed. While banks continued to affect corporate performance, their influence could not be distinguished from that of non-bank shareholders. The study of Gorton and Schmidt appears to cast substantial doubt on the conflict-of-interest hypothesis.

Gorton and Schmidt (1996) investigate the potential conflict of interest in the issuance of public securities when the underwriting of the initial offering is done by an investment bank that holds equity in the concerned firm who would be similar to a universal bank. The evidence in their study suggests that the conflict of interest does exist, i. e., the underwriting bank is able to utilize the superior information it obtains through its affiliation with the firm. Yet, the effects of the conflict of interest are fully discounted, as they are fully anticipated by all market participants. In this regard, Gorton and Schmidt find that initial public offering underwritten for a firm by its affiliated investment bank performs as well or better than issues of firms in which no investment bank holds a prior equity position.

VI. BANK CONCENTRATION AND CONCENTRATION IN THE INDUSTRIAL SECTOR

In the European experience, concentration in universal banking was often associated with concentration in the industrial sector. Da Rin and Hellmann (2001) consider that in their big-push model the issue of concentration¹⁸. They theorize that universal banks start with financing *pioneers* in their own industries. Then, they continue to finance

¹⁸ For other models on the ills of market power in financial markets, see Hart (1983) or Aghion, Dewatripont and Rey (1997).

incumbents. They conclude that large and powerful banks have a vested interest in preserving industrial monopolies. However, universal banks need to be powerful and large to succeed in limiting entry into the financial market. They also need either the outright support of government translated into regulations or at least their acquiescence.

VII. CORPORATE GOVERNANCE

The fact that universal banks sit on boards of firms they finance and have power that may exceed what would be commensurate with their own equity holdings could create problems of corporate governance. First, to internalize the privileges usually accorded to board members, universal banks management would tend to appoint representatives to boards from within the narrowest circle of top management. Eventually, the few members of top management find themselves overloaded the job of monitoring the performance of too many banks. That would make monitoring much less effective.

Second, members of universal banks top management may not have the necessary knowledge and skills to exercise monitoring effectively. Third, as they are top management members, their reporting on the board meetings they attend may turn to be too brief and non-technical for technicians whose job is limited to desk-type follow-up to draw the right conclusions at the right time.

All the above problems would be easily avoided by regulations and supervision. Simple rules setting the proper qualifications of banks representatives on the boards, putting a ceiling on the number of board membership and perhaps prohibiting top management from taking board

membership outside their banks would certainly ameliorate the situation.

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