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Regulation, Supervision, and their Role in the Development of Efficient Islamic Insurance Markets

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In recent years, the development of Islamic financial markets, institutions, and products has accelerated to a remarkable pace. Among the reasons for this development are not only the strong demand for *shari'a*-compliant financial services—particularly in connection with growing oil wealth in the Gulf region but also in non-Muslim countries as well—but also the competitiveness of some Islamic financial products, which attract both Muslim and non-Muslim investors.[2] Much of the debate on the development of Islamic finance is about the role of Islamic banking and the Islamic banking system. It seems that the role of insurance in economic development and financial deepening is often underestimated. However, insurance can play a vital role in the development of an economy.[3]

On the other hand, because of the specific business model of an insurance company, the failure of an insurer to meet its obligations can have severe consequences for the whole economy. Additionally, the interests of the insured need to be especially protected, as—unlike in other industries—premiums are paid up-front for an uncertain event, with many contracts including long-term saving components. That is why a sound regulatory framework is generally needed for insurers to operate. In

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[2] M. El Qorchi, "Islamic Finance Gears Up: While Gaining Ground, the Industry Faces Unique Regulatory Challenges," *Finance & Development* 42, no. 4 (December 2005).

[3] For an extensive discussion of the economic role of Islamic insurance for economic development and poverty alleviation in Muslim countries, see Philipp Wackerbeck, "The Role of (Islamic) Insurance in Economic Development and Poverty Alleviation in Muslim countries". Paper presented at the Seventh International Conference on the Economics and Finance of the Middle East and Northern Africa, Byblos, Lebanon, May 30 – June 1, 2005.

ensuring that business is done according to these regulations, insurance supervision plays a very important role.

As Islamic finance is a fairly new discipline and its products, structures, and processes are usually more complex than those in conventional finance, it is even more necessary to build confidence in the new industry. Particularly in insurance, which even in conventional finance relies heavily on a sound regulatory and supervisory framework, such a framework is very much needed.

It is the aim of this paper to analyze the regulatory and supervisory challenges for Islamic insurance (*takaful*) markets, as the need for *shari'a* compliance increases the complexity of both regulation and supervision. Special attention is given to how Islamic insurers can approach intensified solvency requirements.

PRINCIPLES OF ISLAMIC INSURANCE (*TAKAFUL*)

As opposed to the Western economic system, the concept of Islamic economics defines and prescribes specific patterns of economic and social behavior for all individuals. While the Western system only tries to explain the mechanisms of the economic system, as well as explain and partly predict the behavior of individuals, the system of Islamic economics actually gives guidance to individuals on how to behave.

While the principles of Islamic finance and Islamic banking are widely known, there is a lack of knowledge of Islamic insurance, or *takaful*. One reason for this is that insurance is more complex than banking, and its importance in financial intermediation is also often underestimated. Additionally, Islamic insurance has been widely neglected in literature and research.[4]

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[4] Major contributors to Islamic insurance literature are Muslehuddin (1982) and Siddiqi (1985). A later commentary is provided by Anwar (1994) including a critique. Wahib (1999) gives a practitioner's guide while the publication of the Institute of Islamic Banking & Insurance (1999) focuses on organizational aspects. See M. Muslehuddin, *Insurance and Islamic Law* (Delhi: Markazi Maktaba Islami, 1982); M. N. Siddiqi, *Insurance in an Islamic Economy* (Leicester: The Islamic Foundation, 1985); M. Anwar, "Comparative Study of Insurance and *Takaful* (Islamic Insurance)," *The Pakistan Development Review* 33, Part 2 (Winter 1994): 1315-30; R. B. Wahib, "Islamic Takaful Insurance," *New Horizon* (1999) Part 1, 86, (pp. 10-12), Part 2, 87 (pp. 16-17), Part 3, 88 (pp. 10-12); and Institute of Islamic Banking & Insurance, ed., *Directory of Islamic Insurance (Takaful) 2000* (London: Institute of Islamic Banking & Insurance, 1999).

Islamic insurance is compliant with Islamic law ("*shari'a* compliant"). The insurance business is relatively complex, but becomes even more so when practised in compliance with *shari'a*. Let us first take a look at the problems arising with conventional insurance in Islam. From this point of view, there are three main problems with conventional insurance, particularly with life insurance: *gharar* (uncertainty), *maisir* (gambling), and *riba* (interest).

First, the prohibition of *gharar* is violated, because the benefits depend on future events that are not known when signing the insurance contract. This prohibition nullifies the whole-life insurance contract since this type of policy is based on a time frame (the lifetime of the insured person) that is not known in advance and cannot be known until the event itself (death) occurs. The same principle applies to property and casualty insurance, because losses and damages are also stochastic variables. Second, because policyholders are held to be betting premiums on the condition that the insurer will make payment consequent upon the circumstance of a certain event, insurance is also regarded as *maisir*. By taking out a pure life endowment policy, policyholders are taking a gamble that they will still be alive by the end of the term of the policy to receive the benefits settled in the contract.[5] Third, all types of insurance—life insurance as well as non-life insurance—are constructed such that significant elements of savings are built into them. The insurer invests the pre-paid premiums on behalf of those insured. But because many of these investments are made into interest-bearing securities, conventional insurance policies contravene Islamic law regarding the prohibition of *riba*.[6]

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[5] Criteria for how to determine the presence of the element of gambling in any current practice has been evolved by scientific analysis. This analysis can be summarized in a way that the criterion requires that only those individuals likely to suffer a loss should be entitled to insure themselves and to receive the compensation accruing from insurance. These people should have the right to get insurance by paying the premiums, but those who are not likely to face any loss should not be entitled to buy insurance. If they do, this will be regarded as gambling because they are seeking out risks that normally are not present in their situation. See Siddiqi, *Insurance in an Islamic Economy*.

[6] Probably the most familiar association with Islamic finance is the prohibition of interest (*riba*), which can be found in the Qur'an 2:275: "Those who devour *riba* will not stand except as stands one whom the devil hath driven to madness by (his) touch." In the same verse, we find: "God permits trading and forbids *riba*." This strict prohibition of interest has to be taken as axiomatic. As the Qur'an does not explicitly talk about interest but about *riba*, it first of all needs to be specified what exactly *riba* means. As an Arabic word, *riba* stands for the predetermined return on the use of money. Nowadays, it is widely agreed that this means not only excessive interest (usury), but any interest at all. Some scholars have tried to interpret *riba* only as a

Insurance is controversially discussed within the Muslim communities, and scholars differ as to whether it is possible to create insurance policies compliant with the *shari'a*. It is sometimes argued that the necessary calculations of probability, one of the insurer's core competencies, might be regarded as an act of defiance against *taqdir*, or the predestination of events by God.[7] That is why some scholars declare all forms of life insurance to be prohibited entirely.[8] But apparently the majority of scholars and researchers are of the opinion that a system of life insurance that does not contravene Islamic law can in fact be worked out. When it is based on mutuality it avoids the presence of *gharar*, *maisir,* and *riba* in conventional life insurance. This mutually or cooperatively organized form of insurance is the basis for *takaful* insurance.

Takaful is drawn from the Arabic verb *kafala*, which means to take care of one's needs. It describes a practice whereby members of a group of people jointly agree to guarantee themselves against loss or damage. If one of these members suffers a catastrophe or disaster, this person receives a financial compensation for his damage or loss from a special fund set up by the group. The concept of *takaful* is essentially based on responsibility, solidarity, and brotherhood among the group members who have agreed to share predefined losses to be paid out of predefined assets. This is quite similar to the theoretical conception of a mutual insurance company, where the insured are at least the owners of the insurance company, if not the insurers as well.

Takaful insurance can be put into a systematic order similar to that of conventional insurance. First of all, there is the distinction between primary *takaful* and *retakaful*, as with primary insurance and reinsurance respectively. Primary *takaful* can be divided into general *takaful* (Islamic general insurance) and family *takaful* (Islamic life insurance). There are very few *retakaful* companies operating in the market, and *retakaful*, like reinsurance, can be regarded as insurance for insurers.[9]

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prohibition of usury, but it is now widely accepted that *riba* has to be seen as every type of interest.

[7] This is why home insurance, for example, is widely unknown in many Muslim countries.

[8] For an overview of the discussion, naming the opponents against the validity of life insurance, see Ma'sum Billah, "Life Insurance: An Islamic Paradigm," in *Directory of Islamic Insurance 2000*, 80-84.

[9] The lack of *retakaful* coverage is one of the major problems of the *takaful* industry. With few primary *takaful* insurers available, it is difficult for *retakaful* companies to do a risk transformation with the risks they receive from primary *takaful* insurance companies. Since they cannot operate with the law of large numbers, the technical risk is difficult to calculate.

General *takaful* offers coverage of risks of a general nature for companies or individuals (participants).[10] Among those products are automobile insurance, fire and allied perils, property, transportation, marine cargo, engineering insurance, and workers' compensation. General *takaful* policies are normally short-term contracts for the protection of potential material losses from specified perils. Premiums paid by the members are called *tabarru*' (contribution, donation). The premiums are invested on a *mudaraba*[11] basis by the *takaful* operator. Profits are afterwards allocated between the *tabarru*' fund and the management. If there is any surplus left after the deduction of indemnity, reserves, and operational costs, it is either shared between all participants, or shared specifically among those who did not make a claim, depending on the company concerned. General *takaful* is similar to conventional insurance because members' contributions are entirely invested like the premiums in a *tabarru*' fund. However, it is different in that investments are done on a *mudaraba* basis, and the participants are entitled to share any surplus in the *tabarru*' fund.

Family *takaful*, or Islamic life insurance, has the objective of paying for a defined loss from a defined fund. This fund is managed by a *takaful* company, but it is mutually set up by the policyholders. The idea behind a life insurance policy is not to insure one's life, but to make sure that the dependents of the insured can care for themselves if the insured dies. Additionally, it is often used for building up capital to financially secure one's retirement. Family *takaful* schemes provide coverage for individuals on a long-term basis. The maturity of these policies normally ranges from 10 to 30 years. Elements of *gharar* can be avoided if the policy is operated on the principles of *mudaraba*, that is, as a profit-sharing contract between the providers of the fund (policyholders) and the manager of the fund (the *takaful* company). The share of profit of each party has to be predefined. The uncertainty in the contract period is banned by the fixed period or term of the policy.[12] The principle of *takaful* life insurance is fairly similar to investment-linked (unit-linked) life insurance, where premiums are

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[10] The following description is based on a discussion in D. M. F. Yusof, "The Concept & Working System of *Takaful*," in *Directory of Islamic Insurance 2000*, 17-24.

[11] A *mudaraba* can briefly be described as a financial partnership. After receiving the deposits of the investors, the *mudarib* manages the investment of the funds to businesses or trade activities of an entrepreneur. After a previously agreed upon period of time, the principal is paid back to the investor. In addition to that, the investor receives a previously agreed upon share of the profit the entrepreneur has made by using the funds paid by the investor. The *mudarib* also receives a share of the profit for his labor and entrepreneurship.

[12] In fact, if the term is long enough, this could lead to a whole-of-life policy as well. Otherwise it remains a term insurance.

invested into a mutual fund (unit trust) after the insurer's expenses have been deducted. Premiums paid by the insured are split up and paid into two different accounts: the *tabarru‘* account and the participants' *mudaraba* investment portfolio. Out of the *tabarru‘* fund, benefits for the insured are paid, while profits from the *mudaraba* investments are shared between the participants and the companies in pre-agreed upon ratios.

As explained above, *takaful* is theoretically perceived as cooperative insurance, where members contribute their premiums to a common pool. The original intention is a non-profit system, but the commercialization of *takaful* has led to different models of organization of Islamic insurance schemes, each of them reflecting different experiences and environments. There are actually four different models in practice: the *ta‘awuni* model, the non-profit model, the *al-mudaraba* model, and the *al-wakala* model.

The *ta‘awuni* model can be regarded as a cooperative insurance model. The concept of pure *mudaraba* is practiced in daily transactions. It encourages Islamic values like solidarity, brotherhood, unity, and mutual cooperation. In this model, the *takaful* company and the policyholders will share only the direct investment income, while the policyholders are entitled to all of the surplus with no deduction made prior to the distribution. The *ta‘awuni* model is applicable to life *takaful* (family *takaful*), because the fund is entirely distributed to the participants. The non-profit model includes government-owned enterprises and programs operated on a non-profit basis. The *tabarru‘* fund is made up completely by donations, either by participants who are willing to give to the less fortunate members of their community, or by social and governmental institutions. In the *al-mudaraba* model the surplus is shared between policyholders and the *takaful* operator at a pre-agreed ratio. In general, this model of risk sharing allows the *takaful* operator to share the underwriting results from insurance operations as well as favorable performance returns on invested premiums. In the *al-wakala* model, the *takaful* operator's role is more an administrative one, rather than a risk taking one. The risks are shared cooperatively among the participants while the *takaful* operator earns a fee for its services as a *wakil* (agent). The operator does not share in any underwriting results, which solely belong either as surplus or deficit to the participants. In addition to the arranging fee, the operator may also charge a fund management fee and a performance incentive fee.

Apparently only the *al-mudaraba* model and the *al-wakala* model can be attractive for commercial insurers willing to set up Islamic insurance windows. However, mutual or cooperative forms of insurance do have some severe disadvantages over joint stock insurers. Among these disadvantages are the inability to raise capital by rights issues, difficulties

in corporate consolidation, and problems with corporate governance.[13] This needs to be remembered when finding insurers willing to do *takaful* business themselves, or operating Islamic insurance windows. In the long run it probably will not be large multinational insurance companies that offer *takaful* services, but smaller and locally operating cooperative or non-profit organizations.

Theoretically, Islamic insurance should be more expensive than conventional insurance because it includes more restrictions. There is a trade-off between conformity with Islam and the yield of a life policy or the price of a non-life policy. For example, in property and casualty insurance, the Islamic components can influence two different variables of the insurance decision model: the costs and possibly the planned profit of the insurer. The latter is added to the gross premium in order to make up the price for which insurance is sold. In general *takaful*, especially in property and casualty insurance, it is not possible to price an Islamic insurance policy at a lower price than a conventional one, because all the necessary modifications have a negative impact on the price:

$$P_I = E(\tilde{S}) + R(\tilde{S}) + K_I \quad \text{with } K_I > K$$

P_I *Premium of Islamic insurance policy*

$E(\tilde{S})$ *Expected Loss*

$R(\tilde{S})$ *Risk Premium*

K_I *Costs*

K_I is the cost component for production and administration of an insurance policy in accordance with the *shari'a*. Who is willing to pay for these additional costs of religious conformity: the insurer, the insured, or both? This depends on the utility functions of the participants. If the insurance buyer's utility function contains an Islamic component (that is, the religious conformity of a financial product has a positive impact on the utility function), then he will pay a higher premium for the policy. If the additional cost of conformity is paid by the insurance buyer, it does not influence the profit of the insurer, because additional costs are transferred

[13] For extensive analysis of the pros and cons of different legal forms of insurance companies, see Wackerbeck, "Demutualisierung auf Deutsch: Zur ökonomischen Rationalität eines Modethemas," *Versicherungswirtschaft* 57 (2002): 716-721 (hereafter cited as Wackerbeck 2002a); and Wackerbeck, *Strategische Optionen für Versicherungsvereine auf Gegenseitigkeit: eine betriebswirtschaftliche Analyse der Demutualisierung* (Berlin: Logos, 2002) (hereafter cited as Wackerbeck 2002b).

to the buyer. Depending on the utility function of the insurance buyers, it might also be the case that the utility is increased over-proportionally due to desire for conformity with the *shari'a*. The question is, how much more does it cost to produce *shari'a*-compliant insurance coverage, and how much more are insurance buyers willing to pay for it? Up to now, it has been assumed that *shari'a* conformity has a positive influence on the insurance buyer's utility function. That would be the case with a conventional insurance company offering Islamic insurance. But the conformity can also have a positive impact on the insurer's utility function, if it is not operated under conventional rules, but under Islamic rules. Then the insurer would accept a discount on his profit surcharge. This is why Islamic insurance is organized as a cooperative form of insurance, similar to mutual insurance companies, where the policyholders own the company just by signing an insurance contract instead of buying shares in the insurer. The discount cannot reduce the profit surcharge completely, because even in cooperative forms of insurance, profit is needed to fulfill increasing capital requirements and to build up financial reserves. By integrating this concept of Islamic insurance into the model, it allows one to consider the effects of religious boundaries in economic development, and to give a more precise forecast of the influence of insurance on economic growth, particularly in Muslim countries.

ISLAMIC INSURANCE MARKETS AND ECONOMIC DEVELOPMENT

The insurance sector can contribute to the development of capital markets, because a pool of funds is made accessible to both borrowers and issuers of securities. It might seem difficult within an Islamic financial system to supply borrowers with these funds, but with instruments like *sukuks*[14] it is possible to avoid investing in interest-bearing securities without having to increase the risk of the asset portfolio by only shares. In developed countries insurers are among the largest investors in local capital markets. In order to eliminate the risk of exchange rate movements, they have to invest their funds in the same currency as they receive their premiums. By doing so, they support the development of local capital markets, which is a crucial factor for the development of the whole economy. This positive aspect of insurance for economic growth can be reached especially by selling life insurance or family *takaful* products. This is because these

[14] *Sukuks* are Islamic bonds that are constructed as asset-backed securities. Capital is raised by securitizing assets such as a real estate portfolio, and the rental income is paid to the bondholders instead of interest.

policies on the one hand contain a savings element, and on the other hand are long term business, offering insurers greater flexibility in investing the funds. The lack of a diversified financial market in combination with a high propensity to save could encourage life insurance penetration. Similar to that, an increased life expectancy would increase the demand for savings-based insurance products and annuity income streams.[15]

When societies become more industrialized and urbanized, their vulnerability to losses is enlarged and their demand for insurance increases. Another factor closely linked to this is exposure to natural catastrophes. In the case of disasters such as floods or earthquakes, much wealth can be destroyed. If that wealth is not insured, its loss will either result in a step backwards in development, or force the government to support the victims. In the latter case, there will be a resulting lack of funds for other activities.

Cultural and religious factors could, as in some Muslim countries, discourage traditional insurance while encouraging product innovation, which could be conducive to the growth of the insurance industry. In general, insurance for private households and smaller firms is sold and not bought, while the reverse is true for larger companies. Where insurance has been declined so far, especially in rural areas or among private households in general, *takaful* could be the solution. Whether a broad introduction of *takaful* necessarily leads to a significant increase in insurance penetration still needs to be empirically tested.[16]

The implementation of *takaful* operations is still facing some major difficulties that must be solved in order to compete with conventional insurance. Many risks being addressed by the various supervisory agencies are often unique to *takaful*. Among others, operational risks are especially problematic due to the complex administration of profit and loss sharing modes of financing and the non-standardized nature of some Islamic products. Risks in Islamic contracts could be viewed as more heterogeneous and complex than those carried by conventional insurers. That is why it is important for policymakers to foster the implementation of regulatory and supervisory bodies not just for conventional insurance in Muslim countries, but especially for *takaful* operations. Only if individuals can rely on an insurer's promise to pay in case of a loss, and believe in its financial stability, will they consider buying the insurance at all.[17]

It is necessary to carry out more research on the impact of the desire for the religious conformity of financial products. For instance, although Pakistan as a Muslim country is ranked 135th in the Human Development

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[15] Wackerbeck, "The Role of (Islamic) Insurance," 23.
[16] Ibid.
[17] Ibid., 24.

Index, it has an insurance penetration of only 0.66 percent and an insurance density of only USD 2.9. Kenya as a non-Muslim country is ranked 138th, but has an insurance penetration of 3.48 percent and an insurance density of USD 9.5.[18]

THE NEED FOR REGULATION IN INSURANCE MARKETS

Insurance regulation and supervision is primarily aimed at the protection of the insurance purchaser, as he is generally regarded to be in a weaker position compared to the insurer. But this is not always the case. Under certain conditions, the opposite is true. From a theoretical perspective, the weaker position of the insurance buyer can lead to exploitation of individuals by the insurer, while the weaker position of an insurer can lead to a collapse of the insurance market. In order to promote the efficiency of the insurance market and use insurance as an important means in financial and economic development, insurance regulation is necessary in order to solve problems resulting from market failures.

MARKET FAILURE IN INSURANCE MARKETS DUE TO INFORMATION ASYMMETRY

The simple model of insurance market equilibrium of insurance supply and demand, which has been presented above, is based on the assumption of information efficiency. This means that the insurer is able to differentiate between "good" and "bad" risks. The insurer thus offers to each person demanding insurance coverage a policy that is individually priced with regard to the respective risk situation of the demander. If this unrealistic assumption is skipped, the insurance market will produce an imperfect result. Fully transparent information is unrealistic because the demander is able to withhold information that is relevant to the insurer's pricing decision. Because of this inefficiency, the market process can only lead to a second-best solution. There are two different types of information asymmetries in insurance markets: adverse selection and moral hazard.

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[18] Figures are for the year 1998. See United Nations Development Programme, *Human Development Report 2000* (Oxford: Oxford University Press 2000); Sigma, "World Insurance in 1998: Deregulation, Overcapacity, and Financial Crisis Curb Premium Growth" (Sigma Series, No. 7, Swiss Re 1999); and Sigma, "World Insurance in 2000: Another Boom Year for Life Insurance; Return to Normal Growth for Non-life Insurance" (Sigma Series, No. 6, Swiss Re 2001).

Both of them appear in insurance markets to a certain degree. Although they usually appear simultaneously, they are discussed separately here.

Adverse Selection

The problem of adverse selection was first described by Akerlof (1970).[19] In an insurance context, the insurer does not have sufficient information about qualities of the insured at the time before the contract is signed. The insurance buyer has an information advantage regarding his individual risk situation. As the insurer has an information deficit, the premium can only be calculated as an average of the accurate premiums for "good" and "bad" risks. This average premium is seen as too high by the good risks, who do not buy the insurance. Meanwhile the bad risks do buy, because their respective risks are actually worse than the average (that is, they actually would have had to pay a premium higher than the average if the information was revealed).[20] If the insurance is not mandatory, it can be expected that the insurance pool contains more bad risks, on average, than the total population. The more that good risks decide not to insure themselves at the average premium, the more the insurer must increase its premiums in order to avoid losses. By doing so, even more good risks leave the insurance pool and eventually the system will collapse. That leads to a situation in which no market equilibrium can be reached if the same averagely priced policy is offered to individuals with different loss probabilities.[21] In order to avoid the adverse selection phenomenon, certain signals must be defined that allow the determination of the differences in the actual risk situation.[22]

There are different instruments used by regulatory/supervisory bodies to avoid adverse selection and to reduce its negative consequences. First,

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[19] From a theoretical point of view, it is part of the principal-agent theory, which itself is part of the wider framework of the new institutional economics. G. A. Akerlof, "The Market for 'Lemons': Quality Uncertainty and the Market Mechanism," *Quarterly Journal of Economics* 84 (1970), 488-500.

[20] "What this means is that if the insurer sets a premium based on average probability of a loss using the entire population as a basis of this estimate, only the poorer risks want to purchase coverage. As a result, the insurer expects to lose money on each policy sold." See P. K. Freeman and H. Kunreuther, *Managing Environmental Risk through Insurance* (Boston: Kluwer Academic Publishers, 1997), 43.

[21] See Michael Rothschild and Joseph Stiglitz, "Equilibrium in Competitive Insurance Markets: An Essay on the Economics of Imperfect Information," *The Quarterly Journal of Economics* 90, no. 4 (1976), 639.

[22] For other solutions to avoid adverse selection problems, see Rothschild and Stiglitz, "Equilibrium in Competitive Insurance Markets," 643; and Freeman and Kunreuther, *Managing Environmental Risk*, 43.

the state can act as a monopoly insurer. The demand for insurance is rationed, which prevents the bad risks from purchasing too much insurance coverage. Second, the purchase of supplementary insurance can be prohibited. The worse the risk, the higher the demand for insurance coverage becomes. If supplementary insurance is prohibited, the insurer will always be informed about the total insurance purchasing of each individual. Additionally, a Pigou-tax can be implemented, which leads to an additional taxation, and therefore a reduction of the insurance demand.[23] Fourth, the insurance buyers can be forced to disclose all relevant information. Otherwise, they lose their claims for compensation. Fifth, all measures taken by individuals to avoid losses can be subsidized. By doing so, the spread between good and bad risks can be lowered. Sixth, a mandatory experience rating leads to a premium increase for historically bad risks.[24]

Moral Hazard

Another form of asymmetric information is moral hazard. The term "moral hazard" was originally introduced by Arrow (1963).[25] It describes a phenomenon frequently observed in insurance markets. Moral hazard is the danger that the behavior of an individual may change after having purchased insurance coverage for a certain risk. Because of this coverage, the insured increases either the probability of a loss (risk-increasing moral hazard) or potential loss itself (loss-amount-increasing moral hazard). The insurer is unable to monitor the behavior of the insured, for example, with respect to his initiatives in loss prevention. Only if the change in behavior cannot be monitored by the insurer can it be considered as moral hazard. If the change in behavior could be monitored, the problem could easily be solved by the insurer by advising the client to change his behavior again, or by threatening to increase the premium otherwise. As most measures taken by the insured to avoid losses or to reduce negative financial consequences are not visible for the insurer, moral hazard can lead to the non-insurability of certain risks.[26] Because of the existing insurance

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[23] See Schulenburg, *Versicherungsökonomik* (Karlsruhe: VVW, 2004), 295 for a description of such taxation.
[24] Ibid., 306.
[25] K. J. Arrow, "Uncertainty and the Welfare Economics of Medical Care," *American Economic Review* 53 (1963): 941-973.
[26] See K. J. Arrow and Mordecai Kurz, *Public Investment, The Rate of Return, and Optimal Fiscal Policy* (Baltimore: The Johns Hopkins University Press, 1970), 142; and Arrow, "The Economics of Moral Hazard: Further Comment," *American Economic Review* 58 (1968): 538.

coverage, the insured generally has no incentive to implement measures to avoid losses. This is why moral hazard leads to additional costs. The instruments used by the regulatory/supervisory bodies are similar to those explained above for the problem of adverse selection.[27]

CONSEQUENCES FOR REGULATORS

The information problems in insurance markets described above may lead to a situation in which insurance as a means of risk consolidation is not used to a desired degree. The consequence is market failure, and the efficiency of allocation is reduced by asymmetric information. While the insurance buyer knows about his personal behavior, the insurer does not. Instead, it can only evaluate the average behavior of its risk collective. This leads to additional costs due to adverse selection and moral hazard. This is why state regulation of insurance supply and demand is necessary. The aim of regulation can be seen in the improvement of the allocation process by reducing its inefficiencies.[28]

Additionally, there are other reasons why the risk allocation process cannot be fully organized by the market itself and its participants. Among these reasons are certain limits of indemnity, economies of scale when consolidating risks, and an underestimation of the future needs of people. Limits of indemnity, which may be prescribed by corporate law, for example, can lead to a situation in which the demand for severe but rare claims and losses is lower than necessary. Economies of scale from the risk consolidation are the result of the risk transformation process. The more independent risks are pooled together, the lower the total risk of an insurer. This, in fact, would support consolidation tendencies. The future needs of people are often underestimated, especially those resulting from the risks of illness or aging. It would therefore be important to build up sufficient funds to cover the financial consequences of these risks. But this is often not done sufficiently.[29]

Regulation is aimed at solving the negative consequences of market failure and allocative inefficiencies. But to a certain degree, the market is often able to help itself. For example, insurance companies can use certain instruments like deductibles or risk-adequate pricing in order to avoid the negative effects of moral hazard on the market. Nevertheless, in many economies the state has implemented various regulatory measures, on both the supply and demand side of the insurance market. Regulation and

[27] Schulenburg, *Versicherungsökonomik*, 294-296.
[28] Ibid., 350.
[29] Ibid., 91.

supervision of insurers are the appropriate means to protect the interests of insurance buyers, while the introduction of mandatory insurance schemes (for example in health or automobile insurance) can promote the interests of insurance companies.

On the other hand, it cannot be taken for granted that regulation and supervision always have a positive effect on the efficiency of allocation. Similar to market failure, there is also the chance of state failure, leading to a decrease of efficiency as well.[30]

FRAMEWORK OF INSURANCE SUPERVISION

After describing the need for insurance regulation, attention is now drawn to the supervision of insurance companies. While regulation is about the institutional and legal framework of insurance operation and supervision, supervision itself is about the continuous application of the regulation. The description of the framework of insurance supervision will be conducted in two steps. First, a general theory of insurance supervision is presented. This is followed by an internationally agreed upon framework for insurance supervision.

Insurance Supervision Theory

Supervision by the state can be executed either by a general state authority, such as a monetary authority, or by a specialized insurance supervisor.[31] The supervisory body has certain aims, and to reach these aims it may use various means or instruments. By doing so, it influences insurance companies and the way they do business.

The most important aim of insurance supervision is protecting the interests of the insured (protection theory of insurance).[32] The insurance buyer generally has little transparency regarding what happens with his premiums after they have been paid. He relies on the insurer's promise to pay in case of a loss. In some types of insurance, as in life insurance, where the premium includes a large savings component and the contract is for a long period, it is important to ensure the financial stability of the insurer to avoid negative consequences for the insurance purchaser.

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[30] Ibid., 352.

[31] In this paper, supervision refers only to insurance supervision, and not to *shari'a* supervision. It is the duty of the latter to monitor the Islamic company's operations both at the time of setting up the company and also during further operations.

[32] D. Farny, *Versicherungsbetriebslehre* (Karlsruhe: 2000), 108.

Another very important aim is the avoidance or removal of market failures. Among these are the problems of adverse selection and moral hazard, which could lead to the collapse of the insurance market.[33] It is the duty of the regulator to create a legal framework that helps to avoid these market failures as much as possible, and it is the duty of the supervisor to ensure that insurance companies do their part in the implementation of such regulations.

In addition, the supervisory body must promote the efficiency of insurance markets. If the insurance system was operating within a fully liberalized market economy, the results would be below the optimum because of structural specialties in the process of insurance production. It is the duty of the supervisor to compensate for the inefficiencies caused by these structural specialties.

Moreover, in many economies the operations of the supervisory body are embedded in the overall political economy, and supervision is aimed at promoting the general economic and financial policies of the government or the state.[34]

The insurance supervision process is typically structured as follows:

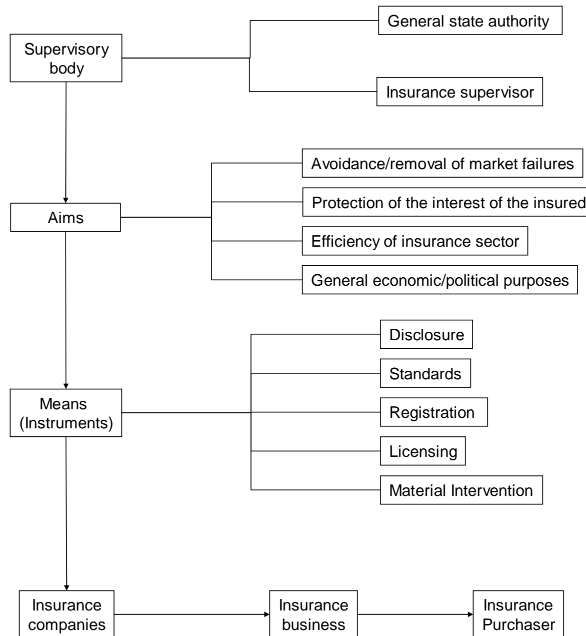

Figure 1: Insurance supervision theory model

[33] Both these issues are discussed above in this paper.

[34] Farny, *Versicherungsbetriebslehre,* 109.

To reach these aims, the supervisory body uses a range of means or instruments. Among these instruments are disclosure rules, the setting of standards, registration and licensing of insurance companies, and material interventions. Disclosure of business results is a common procedure in every industry, but the supervisor has the special duty to monitor that the insurance companies actually disclose the required information on time. A more powerful instrument is the setting of standards for insurance companies and the way they conduct business. These standards cover areas such as the creation of insurance companies, the content of corporate statutes and business plans, capital requirements, and instructions on investments and accounting. The supervisory body also monitors that the capital adequacy requirements are followed by the insurances companies. Even more powerful is the instrument of registration. Only if all the standards set by the supervisor are met, will the insurer be entered in the register. The registration itself does not allow the insurer to start operations. To do so, it needs to be licensed by the supervisory body. The licensing procedure goes into far more detail regarding the fulfilment of all requirements of the standards. Finally, the strongest forms of supervision are material interventions in running the business processes of an insurer.[35] Generally, this is only necessary if an insurer is likely to fail and might become unable to fulfil its insurance promises. In order to protect the interests of the insured, the supervisory body can take control of the insurer and try to avoid the financial collapse of the company.

An Internationally Agreed Upon framework of Insurance Supervision

In late 2005 the International Association of Insurance Supervisors (IAIS) issued a new framework for insurance supervision to harmonize and standardize the many different frameworks currently in effect in various countries.[36] It is important to note that within this framework the solvency of an insurer plays a central role in the risk management of insurers and in insurance supervision, but it is integrated into an overarching framework

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[35] Ibid., 111.

[36] See IAIS, “A New Framework for Insurance Supervision: Towards a Common Structure and Common Standards for the Assessment of Insurer Solvency” (October 2005), 1 (hereafter cited as “IAIS (2005a)”). The IAIS was founded in 1994. Its objectives are the improvement of insurance supervision on the domestic and international levels to maintain efficient, fair, safe, and stable insurance markets in order to protect policyholders and to increase the utility of buying insurance. Moreover, the IAIS aims at promoting the development of well-regulated insurance markets and contributing to global financial stability.

for insurance supervision that is globally acceptable and applicable.[37] The framework is designed as a three-level approach. The first level describes the necessary preconditions for effective insurance supervision, the second level contains regulatory requirements, and the third level the supervisory action.[38]

On the first level, there are two different sets of basic conditions for the functions of the insurance sector and insurance supervision, as well as of the insurance supervisory authority. First the effectiveness of insurance supervision depends on the condition of its environment. There needs to be an institutional and legal framework for the whole financial sector and for its supervision. Additionally, the infrastructure of the financial market should be fairly developed and effective as well. This includes the need for efficiency of the market with the availability of all the relevant information.[39] Secondly, it is important for the effectiveness of insurance supervision that there be a set of clearly defined principal supervisory objectives. Moreover, a supervisory authority is needed that has the capabilities to exercise its functions and powers. Besides the adequate powers, the authority must have sound legal protections as well as the necessary financial resources. It has to be independent in its operations, especially from political institutions and insurance companies. The supervisory authority must be transparent in using its powers and accountable for its actions.[40] This set of basic preconditions is the basis for a sound regulation and supervision system.

Based on these preconditions, there are three major issues that make up the regulatory requirements for insurance companies. Among these are financial issues, governance issues, and market conduct issues. These three issues can be viewed from two different perspectives. First of all, they can either be viewed with respect to the regulatory requirements, which address an insurer's operations. Secondly, they can be viewed with respect to the supervisory action, which is focused on the responsibilities and actions of the supervisory authority.

The regulatory requirements imposed by the regulating body, which include quantitative and qualitative requirements, must be met by every

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[37] IAIS (2005a), 4.

[38] The Bahrain Monetary Agency, the regulating body of Bahrain, has introduced a regulation system that is relevant for all insurance companies operating in the country, no matter if they are conventional or Islamic. These regulations are in line with the standards of the IAIS.

[39] These conditions are general conditions for the functioning of the insurance industry in a jurisdiction and are usually not under the control of the supervising authority. See IAIS (2005a), 5.

[40] IAIS (2005a), 6. In addition, the supervisory authority should maintain sufficient staff for its duties with high-level professional standards.

insurer when pursuing its business activities. With regard to the regulation and supervision of Islamic insurance companies, it is important to note that the recommendations of the IAIS explicitly call for such requirements to be "broad enough to deal with the full range of insurers in the market."[41] This should include Islamic insurers as well as conventional ones.[42]

The financial aspects of an insurer's operations are among the most important regulatory and supervisory issues. This includes questions of solvency and capital adequacy, the valuation and adequacy of technical provisions, the forms of capital, the investments, and complete financial reporting and disclosure.

The second set of issues concerns governance, such as the processes and controls of the board of directors, and senior management, as well as some other organizational aspects. It also involves administrative and internal controls such as the risk management of the insurer. Moreover, it must be ensured that governance structures are compliant with legislative requirements. Governance structures also include the question of how to manage shareholder relationships and special governance risks resulting from diversified group structures.

The third issue is how an insurance company is to conduct its business and present itself to the market. This concerns the relationship between the company and its customers, including the sale of insurance policies and the management of policies. Additionally, it concerns the integrity of an insurer's conduct as an institutional investor. This includes requirements on the disclosure of information to the capital market as well as to the policy holders.[43]

After the regulatory framework has been set up, it is up to the supervisory body to ensure that the requirements are constantly fulfilled by the insurance companies (supervisory action). Among the duties of the supervisor is the assessment of the insurer's risk profile, control systems, and available support. These elements are constantly reviewed. The supervisory authority has to be able to handle the case of each insurance company individually, meaning that the specific circumstances of each company have to be considered. This means that the review is more or less tailor-made for the risk profile and specificities of each insurer, as is any

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[41] IAIS (2005a), 6.

[42] Those regulations can either be enshrined in law and regulation or be compelled by the supervisory body.

[43] IAIS (2005a), 6. The Insurance Committee Secretariat of the Organization for Economic Co-operation and Development has also issued some twenty insurance guidelines for insurance regulation and supervision in emerging economies, which build up a rudimentary framework of insurance regulation. As opposed to the IAIS version, these guidelines are very much focused on emerging economies that lack sufficient regulation.

remedial action taken. Nevertheless, the principles of legal certainty and equal treatment are to be obeyed. On the level of supervisory action it is the supervisory authority's responsibility to take any action if applicable.[44]

There are interdependencies among all elements of this framework. For the provision of a solid overall framework, it is not necessary that all requirements be completely fulfilled by an insurer. In order to keep an effective and stable framework, stronger measures in one element are needed if there are less stringent requirements in another.

APPROACHES IN REGULATION AND SUPERVISION OF ISLAMIC INSURANCE

Among the biggest challenges for the future development of Islamic finance, and particularly the development of Islamic insurance, is the establishment of a sound framework for governing, regulating, and supervising Islamic financial and insurance institutions. Those countries with Islamic insurance companies operating do not have a common approach to handling this problem. Currently, there are two different approaches to regulating and supervising Islamic insurance markets and businesses. First, as in Malaysia, regulation and supervision of Islamic insurance companies are separated from that of conventional insurance.[45] Second, as in Bahrain, the regulatory and supervisory framework of conventional insurance is modified, but there is no separate legal framework for Islamic insurance.

Separation of Conventional and Islamic Insurance Regulation

First of all, it needs to be discussed whether a single regulation for all types of insurance is really sufficient, or if a separate one for Islamic insurance is needed. Both in the literature and in practice, there are different opinions on this issue. The introduction of a different set of regulations for Islamic insurance is illustrated in the case of Malaysia. In 1984, a *Takaful* Act was implemented, which was engineered similarly to the conventional insurance act, but accommodated concepts of Islamic insurance. This act was aimed primarily at supporting the development of Islamic insurance and encouraging investments in the *takaful* industry by improving the quality of the Islamic insurance business. While the

[44] IAIS (2005a), 7.

[45] Regulation and supervision of Islamic insurance companies in Malaysia is based on the Takaful Act of 1984.

conventional insurance business in Malaysia at that time was considered developed, the Islamic insurance business was completely new. Particularly in order to protect the interests of the *takaful* participants (policyholders), the government decided to introduce a separate regulation for this new type of insurance.[46]

In contrast to the Malaysian example, Bahrain as another big hub of Islamic finance has integrated the regulation of Islamic insurance into its regulatory framework for conventional insurance. In addition to the regulatory requirements for conventional insurance, the rulebook of the Bahrain Monetary Authority (BMA)—the regulatory and supervisory body of Bahrain—contains a special section of sector guides under which *takaful* and *retakaful* regulation issues are handled.[47] The *takaful* module summarizes the key aspects of regulations applicable to *takaful* and *retakaful* firms, and is structured similarly to the conventional regulation. It contains high-level standards (such as regulations on the authorization, principles of business, high level controls, auditors, and actuaries), business standards (such as regulations on capital adequacy, business conduct, risk management, financial crime, training, and competency), reporting requirements (such as BMA reporting and public disclosure), and rules on enforcement and redress. As opposed to the *Takaful* Act of Malaysia, the *takaful* module of the BMA rulebook on insurance regulation contains only guidance material. If any discrepancy between the *takaful* module and the rules of the rulebook occurs, the latter will always prevail.[48]

In order to determine which model is favorable, it first needs to be stated that both countries can be considered Muslim countries, as the vast majority of inhabitants are of Muslim background. It might be easier to decide between the two models of regulation if the decision is to be made for a non-Muslim country, as increasingly Islamic financial institutions are established in non-Muslim countries such as the United Kingdom and the United States. In the United Kingdom, for example, Islamic insurance is likely to fall within the regulatory net of the Financial Services Authority (FSA), but gives rise to various regulatory issues. In Islamic insurance, resources are pooled in order to settle claims. The contribution of the policyholders in Islamic insurance can more or less be interpreted as donations with a condition of compensation, rather than as payments of a

[46] A. M. K. Zainal, "Should Countries Follow the Malaysia Approach of Having a Specific *Takaful* Act for Regulating *Takaful* business?" Paper presented at the Institute of Islamic Banking & Insurance Conference on *Takaful*, London, September 26-27, 2003, 3-4.
[47] Other sector guides are on captive insurance and insurance intermediaries and managers.
[48] Bahrain Monetary Agency, "Insurance," in *BMA Rulebook,* vol. 3 (2005), 1.

premium. Despite this, it is probable that Islamic insurance has all the essential hallmarks of an insurance contract for U.K. purposes.[49]

Among the possible regulatory issues is the legal status of an Islamic insurance company, its financial and human resources, its systems and controls, and its transparency. This is not a problem specific to insurance regulation in non-Muslim countries. Any regulation of insurance activity is focussed on a legal entity doing insurance business, generally a corporation or a mutual society.[50] A problem then occurs with *takaful* insurance, when the insured and the insurer are themselves the participants. This is the case if the *takaful* insurance is operated as an *al-wakala* model, because the *takaful* operator only acts as an agent. In contrast to that, no regulatory issue would be raised if it is operated under the *al-mudaraba* model, because the *takaful* operator shares in both the underwriting results from the operations as well as any favorable investment performance on the invested contributions. In Bahrain, for example, no other form of *takaful* than the *al-wakala* model is permitted. In this case, it would actually be difficult to apply the conventional insurance regulation on the Islamic one.

As a conclusion, it can be argued that the need for a separate Islamic insurance regulation depends on the exact content and structure of the regulatory framework for conventional insurance. The most important factor influencing the decision to introduce a separate regulation is whether the term insurance is clearly specified in the conventional framework. If it is not, *takaful* can be regarded as a competing alternative to conventional insurance. This means that the regulations on conventional insurance should be amenable to *takaful* insurance, too. Although there are certainly structural differences between the two concepts, a single regulation with the necessary modifications for *takaful* seems appropriate. Under these circumstances, *takaful* could therefore be regarded as a sub-set of insurance rather than a separate category of financial product, meaning that no separate regulation for *takaful* is necessary.

Different Set of Rules for Islamic Insurance?

In addition to the issue of a separate regulation for Islamic insurance, there is also the question of whether conventional and Islamic insurance businesses should be treated equally in regulatory matters. Again, opinions

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[49] M. Mankabady, "Takaful Insurance: UK Regulatory Issues," Paper presented at the Institute of Islamic Banking & Insurance Conference on Takaful, London September 26-27, 2003, 2.
[50] In the United Kingdom it could also be a member of Lloyd's.

differ between supporters and opponents of a separate regulation for Islamic insurance. This can be illustrated again by comparing the Malaysian and the Bahraini regulatory frameworks.

Concerning the requirements of capital adequacy, for example, regulation in Bahrain prescribes minimum funds that must be maintained by each *takaful* fund at all times. These minimum requirements are fully equivalent to those amounts for conventional insurance companies.[51] This means that the regulation does not differ between the risk structures of Islamic and conventional insurers.

In contrast, in Malaysia the capital requirements for *takaful* operators are less stringent than they are for conventional insurers. While the minimum capital required for a conventional insurance company is RM 100 million, it is only RM 30 million for an Islamic insurer. The rationale for this inequality lies in the different risks involved in the two types of insurance. In general, the risk exposure of *takaful* companies is considered to be lower than that of conventional insurers for the following three reasons.

First, as the participants (policyholders) by and large carry the investment risk, this risk is lower for the *takaful* operator.[52] In conventional insurance this could also be the case where unit-linked life insurance is concerned. Second, the *takaful* operator is exposed to a lower mortality and morbidity risk, because most, if not all, of these risks are either passed back to the participants or to a *retakaful* operator.[53] Actually, this depends on the *takaful* model used. In the *al-wakala* model, the *takaful* operator bears neither the investment nor the underwriting risk (including mortality and morbidity). In the *al-mudaraba* model, the risk is primarily carried by the pool, and can be partly or completely reinsured. However, this is also possible in conventional insurance, especially when organized in the mutual insurance structure. This means that only in the *al-wakala* structure is the risk of an Islamic insurer lower. Third, the operational risk for the *takaful* operator might on the other hand be higher than for conventional insurers, because most of the risks (investment and underwriting risks in the *al-wakala* model) are borne by the participants. This could lead to agency costs, as the *takaful* operator has less to lose in any failure.[54] Regarding the different risk profiles of Islamic and conventional insurance, a differentiated regulation seems to be appropriate. In the following section, a more detailed look at the capital requirements as well as the different risk exposures will be taken.

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[51] BMA, *BMA Rulebook*, 1 (see section 3.1).
[52] Zainal, "Should Countries Follow the Malaysia Approach?" 4.
[53] Ibid.
[54] Ibid.

REGULATORY CHALLENGES FOR ISLAMIC INSURANCE

There are three main areas of regulatory challenges for Islamic insurance. First, capital requirements have to be discussed and special attention has to be drawn to recent developments of solvency issues in conventional insurance. After that, governance issues as well as the protection of consumers from misinterpretation in Islamic insurance will be discussed.

Capital Requirements

The IAIS has issued some cornerstones for the formulation of regulatory financial requirements, which are intended to build up a common structure and common standards for the assessment of insurer solvency. [55] The solvency of an insurer has a central position in its risk management and in the supervision of insurance activities. To determine the capital requirements for an Islamic insurer it is important to enhance the transparency of the risks that Islamic insurers face and encourage the improvement of insurers' risk management. The IAIS demands the individual solvency regime to define solvency requirements for insurers in a group context. Therefore, both the required level as well as suitable constituents of solvency should be viewed. Avoiding multiple gearing, as well as unsound intra-group creation of capital, are among the major objectives of the solvency regime. Additionally, any scope for unwanted regulatory arbitrage should be eliminated.[56]

Risk-based regulation of financial services, especially of insurance businesses, is becoming increasingly important. In Islamic insurance markets, the regulator has to ensure that the applied regulation properly fits the asset and liability profiles of *takaful* insurers. As already mentioned, the risk profiles of Islamic and conventional insurance are somewhat different. While Islamic insurance might be subject to additional operational risks, the structure of their business model might avoid other

[55] The recommendations are aimed at supporting transparency and convergence in international insurance regulation. In a two-step approach it is designed firstly to substantially increase the transparency of the existing solvency regimes and improve the financial condition of individual insurers, and secondly, to increase the convergence of solvency regimes.

[56] The recommendations on common standards for the assessment of insurer solvency are based on the principles on capital adequacy and solvency issued by the IAIS, too. There, the IAIS sets out fourteen principles for a capital adequacy and solvency regime. These principles form the basis for an assessment of an insurer's solvency. See IAIS, "Towards a Common Structure and Common Standards for the Assessment of Insurer Solvency: Cornerstones for the Formulation of Regulatory Financial Requirements," October 2005, 7-8 (hereafter cited as "IAIS (2005b)."

risks usually embedded in conventional insurance. This makes modification of the common standards of capital adequacy of conventional insurers necessary. Therefore what is needed is a deeper understanding of the economic substance of the transactions and instruments of Islamic insurers.[57]

Due to its mutual and co-operative basis, Islamic insurance is often understood to be similar to conventional mutual or co-operative insurance. However, this is only true to a certain degree, because in Islamic insurance, shareholder capital is available to finance its development and to invest in the market to build up further capital. But this is only the case if Islamic insurance is structured on the *al-mudaraba* model, and not if it is structured on the *al-wakala* model. Although there are shareholders involved in the *al-wakala* model, they only finance the activity of the Islamic insurer as an agent (*wakil*), and do not fund the insurance operations of the participants. In the case of financial difficulties of the insurance pool, whether caused by an unfortunate occurrence of risks or by losses in its investments of the contributions, the options for raising the new capital required are very limited. In some countries only the *al-wakala* model is permitted, thus imposing a challenge for regulation and supervision. Regulation can only ensure that those financial difficulties resulting from unfortunate investment activities are avoided, and not those of the insurance business itself. But neither regulation nor prudent supervision can ensure that the financial distress resulting from severe losses that have not been reinsured by the insurance operator can be avoided. In such a critical situation, the *takaful* company has massive problems in raising new capital. As a rights issue does not help the insurance pool, the required funds can only be brought up either from the company's financial reserves or by interest-free loans of the participants.[58] If the reserves are not sufficient, interest-free loans could—even if such an event is more or less unlikely—be the only option for the insurer to increase its capital base in this situation. As interest-free loans do not seem to be very attractive for the participants, and additionally impose massive free-rider problems, the insurer faces a tremendous financial problem.[59] In order to avoid such a situation, it is very important for the regulator to ensure that a *takaful* insurer operating under the *al-wakala* model has a sound financial basis. Concerning the capital requirements, regulation

[57] See James Smith, "Regulatory Challenges for Islamic Insurance," in *Ernst & Young Financial Services Brief* (Spring 2005), 44.

[58] Such a situation might trigger a need for the shareholders' fund to make a transfer to the *takaful* fund, but this transfer has to be repaid.

[59] For extensive discussion of the problems of mutual or co-operative conventional insurers in raising capital, and for possible solutions these problems, see Wackerbeck (2002a) and Wackerbeck (2002b).

therefore has to differentiate between the different *takaful* models because of the difference in the ability to raise capital if needed.

Governance Issues

The development and application of sound risk management and governance practices by the Islamic insurance industry is for the benefit of not only the industry, but also other stakeholders such as policyholders, supervisors, and other parties involved. To a certain degree, among these stakeholders there is a parallel interest in appropriate standards and structures with regard to the practicability and costs of supervision.[60]

In particular, the financial requirements imposed by regulation must be understood within a wider context of adequate risk management and control by the insurer. That is why the solvency regime requires the existence of adequate governance structures among insurers, including risk management and internal control processes with reliable administrative, accounting, and reporting procedures. Good governance includes the periodic review of decision making processes, strategies, and policies by a suitable governing body of the insurance company with respect to all the risks that the insurer assumes. Special attention must be drawn to management of the company at the solvency level in order to anticipate the potential impact of the insurer's business strategy on both its risk profile and solvency position. Additionally, risk management systems should be properly integrated into the organization. In order to ensure consistent measuring, assessment, monitoring, and reporting, appropriate measures must be taken.[61]

If conventional insurance is organized in a mutual or co-operative form, there is an increased risk of poor governance due to the fact that the linkage between the policyholders and the management is tenuous and diffused. That is why it is fairly difficult to enforce accountability. As the governance structure of Islamic insurance is similar to conventional mutual insurance, Islamic insurance companies are likely to suffer from the vulnerability of the governance structures.[62] As explained above, especially if Islamic insurance is structured on the *al-wakala* model, the supervision of risk management and governance structures are important, as the ability to refinance the insurance pool in case of financial distress is limited.

[60] IAIS (2005b), 6.
[61] Ibid., 8.
[62] Smith, "Regulatory Challenges," 44.

Additionally, the quality of the *takaful* operator's management can have a strong influence on the underwriting result of the insurer. However, the participants of the pool who are the beneficiaries of any underwriting surplus, yet also carry the consequences of any underwriting losses, might have difficulties in holding the managers to account.[63]

It is therefore necessary for regulators to ensure prudent supervision of the management's activities, as well as the availability of appropriate systems and controls that will produce a culture of accountability. It is recommended for Islamic insurance regulators to promote the scrutinizing of the systems and controls of an insurer by non-executive directors, actuaries, and accountants, or even independent regulatory officers. Additionally, even the *shari'a* board might take part in the supervision of the management to a certain degree.

Protection of Consumers from Misinterpretation

Another challenge for insurance regulation and supervision is to ensure that the public is not misled in a matter that is significant to their decision to buy a specific insurance product. This is especially relevant for insurers that claim to be Islamic. If an Islamic insurer promises customers that its products and operations are compliant with *shari'a*, then these customers will be annoyed if they discover that this statement was incorrect. In order to avoid the consequences of mis-selling, the supervisor must ensure that a compliance claim of an Islamic insurer is valid. The responsibility for the *shari'a* compliance of products and operations lies with the *shari'a* board of each Islamic insurer, which consists of recognized Islamic religious scholars. The religious board issues a statement on the *shari'a* compliance of the products and relevant operations, which the customers must rely on. However, some authors argue that the opinion expressed by the *shari'a* board is not sufficient for the regulator.[64] As the protection of the interests of the consumers is one of the major aims of the regulator, there needs to be some form of supervision of the *shari'a* board as well. Only in the case where there is a national *shari'a* board that sets standards for *shari'a* boards of various Islamic insurers and ensures that they are complying with these standards, can the insurance regulator assume that consumers are being protected from misinterpretation. If there is no national *shari'a* body, then the regulator should require Islamic insurers to prove that their

[63] Ibid.
[64] Ibid., 45.

systems and controls are adequate, in order to make sure that both the products and relevant processes are *shari'a* compliant.[65]

CONCLUSION

This paper has analyzed the need for regulation and supervision for the sake of developing Islamic insurance markets. The insurance market equilibrium is reached—as in any other market—when insurance demand is equal to insurance supply. But there are certain specifics of the insurance market that often lead to market failures. The worst-case scenario is that these market failures lead to a complete breakdown of the insurance market with severe consequences for the whole financial system of a country. From a theoretical point of view, the reason for market failures in insurance markets is asymmetric information between the insured and the insurers. Asymmetric information generally leads to two major problems: adverse selection and moral hazard. In order to avoid such a breakdown and make insurance markets work efficiently, insurance regulation and supervision is needed. Additionally, it is necessary to protect the interests of the insured.

Conventional insurance is not compliant with the *shari'a*, as it contains elements of *riba*, *gharar,* and *maisir*. The concept of Islamic insurance (*takaful*) eliminates these elements. Insurance may generally promote economic growth, because it increases the ability to undertake ventures. Especially in Muslim countries with a low degree of insurance penetration and insurance density, Islamic insurance could potentially initiate economic growth.

In general, insurance is a highly regulated industry. As the legal frameworks of various countries more or less differ, there has been no single regulatory framework for different countries. However, the International Association of Insurance Supervisors is working on the harmonization and standardization of the regulatory framework. In most Muslim countries, with the exception of Iran and Sudan, *takaful* competes with conventional insurance. As the concept of Islamic insurance differs in many aspects from conventional insurance, a different regulatory and supervisory framework is needed. In Muslim countries, different approaches on regulation and supervision of insurance have been chosen. While some countries prefer to have a specific *takaful* regulation, others have modified their existing regulation for conventional insurance. This paper suggests that a separate *takaful* regulatory framework is only

[65] See Ibid., 45 for the requirements for *shari'a* boards of the insurance regulator in non-Muslim countries.

necessary if conventional insurance is clearly specified in the existing regulation, and if the concept of *takaful* does not fit into this existing framework. Nevertheless, some rules within the regulatory framework need to be different for *takaful* than what they are for conventional insurance. It has to be taken into consideration that the risk profile of Islamic insurance is different than that of conventional insurance, depending on the *takaful* model chosen. Capital requirements should be lower for a *takaful* structured as an *al-wakala* model than for the *al-mudaraba* model and for conventional insurance. It will be a task for future research to systemize the different risk profiles of conventional insurance and the various *takaful* models in order to make recommendations on the capital requirements for each model.

It is important to mention that regulators and supervisors, now more than ever before, must look beyond the traditional boundaries of their industries. As more and more large financial institutions diversify their operations, there are more specific types of risks that supervisors must analyze. This development also applies to Islamic insurance. In future research special attention should be drawn to a holistic regulation and supervision of Islamic financial services conglomerates.