INSURANCE SOLVENCY SUPERVISION, EUROPEAN REGULATION AND TAKAFUL PRODUCTS

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Abstract

This paper investigates the application of global solvency supervisory principles and the European Solvency II regulatory framework to Takaful schemes, given their growth potential in both Western and Islamic countries.
Due to their particular nature, concerns have been raised as to the suitability of international standards for sound and proper supervision.
On the one hand, growing numbers of potential customers are already present in many Western countries, but only in a few of these countries are these products available, and even then in limited numbers, due at least in part to regulatory and supervisory constraints. In many emerging countries, on the other hand, these schemes represent a significant portion of insurance business, despite low levels of insurance penetration and a limited diffusion of specific regulation and supervision, driving attention to risks for customers arising from extreme events.
This contribution focuses on major supervisory complexities surrounding the introduction of Takaful in European countries, with regard to the forthcoming Solvency II framework.
Its three-pillared approach encompasses financial, governance and risk management requirements, as well as transparency and enhanced disclosure: in all these areas, several issues arise when considering Takaful schemes (e.g. size of market risks, definition of eligible capital, potential conflicts of interest, segregation of funds and accountability). Some concerns are shared by mutual and cooperative insurers, whereas others are more specific: the application of the proportionality principle is still under development, and its reconciliation might prove a difficult task.
The objective of this study is to highlight these main areas of concern, with particular regard to the issues of solvency and prudential supervision: this might be useful to emerging economies and their improving solvency regulation as well, should risk-based supervision be increasingly adopted as a world-wide standard.

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INTRODUCTION

Several Islamic countries are currently experiencing significant economic and financial growth: in many sectors, two-digits rates (i.e. 15-20% per year) are achieveable, if not common (Jaffer, 2006; Ishak, 2007). Moreover, many observers emphasise that the true potential is far from being achieved, and that the near future will bring both challenges and opportunities to countries, businesses and customers.

At the same time, the world-wide Muslim population is increasing significantly: recent research published in 2007 gave a figure of 1.84 billion people, i.e. almost 28% of world population[1]. Despite these figures, the majority of these people live in developing countries: therefore, although the Muslim population worldwide might represent a lower share of world's financial resources and GDP, it cannot be dismissed as negligible.

Indeed, the Muslim population is also playing a crucial role in Western countries, both in Europe (nearly 7% of population) and North America (around 2%). In these countries insurance penetration, financial education and customer awareness have already achieved considerable levels. However, competition with conventional players might prove a significant entry barrier for Islamic financial services (Sabbagh, 2004).

Financial institutions increasingly play their roles internationally rather than domestically: therefore the importance of associated principles, products and strategies should not be underestimated.

These developments appear even more striking if one considers how relatively short the history of modern Islamic financial services is: the first Islamic bank was established in Egypt in 1963, while principles in favor of Islamic insurance were issued in 1977, and the first Takaful company was founded in Sudan in 1979 (Ernst&Young, 2008). Given the current low penetration rates experienced even in high-growth markets, there is room for further expantion of this potential. Just to mention the most recent data on this topic, the preliminary results of a study of the Italian market indicate that while almost 70% of immigrants have a bank account, only 42% of them are policyholders of an insurance product (Rhi-Sausi, 2008).

Financial and economic environments, however, are growing and evolving rapidly in Western markets, posing significant limitations upon the growth potential of Islamic financial services: the main challenges are global competition and developments in regulatory and supervisory frameworks.

Specifically, the Takaful (Islamic insurance) industry has recently been re-

[1] Accordingly to *World Muslim Population*, available on www.islamicpopulation.com.

garded as one of the major components of the overall Islamic financial system (Ghani, 2007): with growth rates of around 15-20% (Jaffer, 2006), it currently represents 6.3% of total assets in the overall insurance industry, and is expected to raise contributions of as much as 7 billion USD by 2015.

The diffusion and knowledge of Islamic financial services is still limited in the majority of countries, with some remarkable exceptions (e.g. Malaysia). In particular, the most untapped growth potential is present in geographical areas such as North America and Europe: Islamic communities (but also customers sensitive to socially responsible investments, as noted by Oliver Wyman, 2007) might be interested in financial products of this sort.

At the same time, challenges arise in the reconciliation of Islamic financial services and Western regulation and supervision, as well as those associated with customers' awareness, as might other issues relating to the intrinsic economic limitations of these businesses. In the light of their economic role, risk-transfer mechanisms have been usually subject to regulation and supervision, aiming at monitoring the stability of financial systems and fostering policyholders' protection; however, application of such frameworks may prove difficult if not controversial to some features of Islamic financial services.

This paper examines the nature of Takaful schemes and the issues related to their introduction in European countries subject to a risk-based regulatory framework, such as Solvency II. In particular, the suitability of principles applicable to mutual insurers is analysed, in the light of the particular issues that might arise from their nature and business practice. Finally, some regulatory and supervisory challenges which await the introduction of Takaful products in the European Union are identified, together with some policy remarks that could prove useful for both Western and Islamic market players.

The paper is structured as follows.

Section 1 briefly reviews the main literature on Takaful products and the regulatory issues associated with their operation. The aim is to circumscribe the subject, and to provide reference for future studies, while establishing the basis of the subsequent discussion.

Section 2 introduces the nature and operation of Takaful schemes, whereas Section 3 discusses applicable supervision and these products' compliance to regulations under the Solvency II framework. In both cases discussion will be limited to the main issues, and common areas of mutual influence, rather than attempt to present a comprehensive picture of both subjects.

Section 4 compares Takaful and mutual insurers in the light of these elements, identifying where major challenges might arise with reference to risk-based solvency supervision. In particular, a full break-down of the proportionality principle might represent the main answer to the specialties of

these entities, and to the need of proper supervision for them which would be sufficient to secure the confidence of the markets and customers.

Finally, Section 5 provides some concluding remarks on the introduction of Takaful schemes in European countries, but extends its policy recommendations to emerging markets, their regulatory frameworks and to market players.

1. LITERATURE REVIEW

Modern Islamic financial services have only recently achieved a significant pace of growth, after their operation was reconciliated to Islamic principles (Table 1).

Focusing on insurance, several features of conventional risk-transfer mechanisms do not conform to Islamic principles (Maysami and Kwon, 1999; Obaidullah, 2005; Bekkin, 2007): in particular, investments in interest-bearing assets (*riba*), the presence of excessively risky speculative activities (*maisir*) and uncertainty/ambiguity (*jahalah*) in the obligations and returns due to the contracting parties (*gharar*)[2].

Despite being interest-free in principle, *Sharia*-compliant contracts do not imply cost-free capital, but an equitable and explicit sharing of profits and losses between participants (Kwon, 2007).

More concerns have been raised by scholars adverse to conventional insurance[3]: despite this criticism, one could note that Islamic principles do not prohibit insurance itself, but oppose some features of the conventional approach to its operations (Billah, 1993; Mahmood, 1991).

Given the economic relevance of risk-transfer mechanisms, the need for reconciliation of insurance with Islamic principles led to a new approach to these operations, called Takaful, "a type of joint guarantee insurance mechanism based on the law of large numbers in which a group of societal members pool their financial resources together against certain loss exposures" (Kwon, 2007). In such schemes, policyholders share the objective of pooling their risks, and cooperate through their participation in a fund, through which they collect contributions used to compensate those who experience losses.

From this general definition, little difference emerges with mutuality as it is understood in non-islamic countries: however, an examination of the operation of Takaful schemes reveals several departures from traditional insurance schemes.

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[2] For a simplified comparison of main terminology, refer to A. M. Best (2008).
[3] For a comprehensive analysis, see Billah, 1998 and 2000.

Table 1: Development of modern Islamic financial services

Year	
1963	First Islamic banks established in Egypt
1975	The World's first fully fledged Islamic bank is established - Dubai Islamic Bank
1977	Fatwa issued by the Fiqh Council of Muslim World League in favour of Islamic insurance
1979	Sudanese Islamic Insurance Company is established as the world's 1st Takaful company by Faisal Islamic Bank of Sudan Arab Islamic Insurance Company (AIIC) is established in Dubai by the Dubai Islamic Bank
1984	Malaysian Takaful Act comes into effect The first Takaful company is established in Malaysia - "Takaful Malaysia"
1985	Fiqh Council of the OIC approves the Takaful system in 1985 as the correct alternative to conventional insurance in full compliance with Shari'a National Company for Co-operative Insurance is established in Saudi Arabia by Royal decree and is 100% owned by the government
1997	Asean ReTakaful International Limited (ARIL) the first active Islamic reinsurer
2006	Worldwide re-insurance operators enter the Re-Takaful market: Hannover Re Takaful, Bahrain; Munich Re, Malaysia

Source: Adapted from Ernst&Young, 2008.

The elements of *maisir* and *gharar* are mainly eliminated[4] through an explicit and transparent agreement on the sharing mechanism (see Macfarlane, 2006).

However, these general conclusions need to be discussed more in detail. Many differences exist, and several divergent practices have arisen as to how such schemes are to be established, and how the relationships between participants are regulated: approaches even vary between different Islamic countries, and within the same geographical area (Kwon, 2007).

As mentioned, several differences exist between conventional insurance and Takaful, which therefore suggests the need to examine the regulatory implications, especially with regard to international financial principles and standards. In particular, the path to convergence in the treatment and functioning of Takaful gives rise to concerns in the following areas (IAIS and IFSB, 2006):

- the supervisory role (if any) regarding the products' compliance to Shari'a principles;

[4] For a review of the reconciliation of insurance to Islamic principles, see Bekkin, 2007.

- the risk profile and the implications for capital adequacy and solvency;
- the distribution of risks/returns and assets/liabilities among participants;
- issues related with investments and asset allocation;
- sound and proper corporate governance of entities;
- transparency, accountability and disclosure of operations.

The updated European Regulatory Framework for Insurance Solvency Supervision (Solvency II) aims to harmonise and develop the internal market, while also providing a higher level of protection for policyholders. The Framework is grounded in economic principles and risk-based systems, and it takes the three-pillared approach applied to the banking sector (Basel II) to a new stage of comprehensiveness and consistency. Its full implementation is expected in late 2012 (EU, 2009b), but the Framework Directive is already enforced by EU legislation (EU, 2009a), and the Committee of European Insurance and Occupational Pensions Supervisors (CEIOPS) has been active in recent years, publishing Quantitative Impact Studies and answers to the European Commission's calls for advice[5].

Despite the main objective, market conditions within the EU are far from being harmonised, and see several players with very different features competing in the same environment; this is a plus in terms of diversification, competition, systemic risks and availability of alternatives to customers, but a great challenge for regulation and supervision.

In particular, mutuals and cooperative insurers represent more than two thirds of European insurance entities, or nearly 30% of all paid premiums (AISAM-ACME, 2007b and 2007c). Globally, the market share in 2007 was close to 23%, greater in the non-life sectors, with 26.5% than in life insurance, with nealy 20% (ICMIF, 2009).

For these companies, usually limited in size of operations, two challenges are foreseeable:

- a proper balance between risk-based approaches and a proportional burden placed on smaller entities, as well as recognition of their specialised role;
- the lack of a level-playing field across Europe, due to the absence of a shared view on these companies.

Given these introductory remarks, the following paragraphs identify and discuss the applicability of this methodological framework to Takaful products and the major issues arising from this process in more detail.

[5] For further reference on the various contributions of CEIOPS and the development of Solvency II, see www.ceiops.org.

2. FEATURES OF TAKAFUL SCHEMES

Knowledge of Takaful is limited in European countries, and only a few features of these products might find a direct equivilent in mutual insurance schemes, especially given the lack of uniformity across Europe in the mutual and cooperative sector.

As mentioned, Takaful schemes work on the basis of a pooling mechanism, similar to the mutual and cooperative approach, but still subject to remarkable differences. The lack of an international standard of business practice is one of the main issues currently facing the Takaful industry (Ishak, 2007): different operational models, sharing mechanisms for liabilities and profits/losses, approaches to investments and access to capital are needed to describe this market.

First of all, there are different models on which Takaful schemes are based, in other words contracts that govern the operation of the funds and the relationship between participants and operators.

The most common models can be briefly described as follows (IAIS-IFSB, 2006; Kwon, 2007; Bhatty, 2007):

- Pure *mudaraba* model (profit-sharing contract). With this contract both policyholders and the Takaful operator share profits deriving from operations, whereas the former are capital providers and the latter acts as an entrepreneur managing the business on their behalf. The contract explicitly specifies how profits are shared; instead, losses are borne by capital providers only (policyholders), if no misconduct and/or negligence is attributable to the Takaful operator.
- Pure *wakala* model (agency contract). With this contract policyholders' funds are kept completely separated from the insurer's capital, with the latter receiving a fixed fee for its management and investment services: net profits are therefore credited to policyholders only. The contract usually involves a performance fee as an incentive to operator's efficiency.
- Combination of *mudaraba* and *wakala* models. In this contract the *wakala* contract is adopted for underwriting, whereas the *mudaraba* model is used for investment activities. This model is widely used in business practice by many Takaful schemes, and recommended by several regulators and international organizations (Casey, 2007; Tolefat, 2007; EY, 2008), as AAOIFI (Accounting and Auditing Organization for Islamic Financial Institutions) and IFSB (Islamic Financial Services Board); nonetheless, some variation still applies (for instance, see A. M. Best, 2008 on *waqf* models).

However, this simplification does not completely deplete the models adopted.

Table 2: Comparison between Takaful, conventional insurance and mutuals

	Conventional Insurance	Mutual Insurance	Takaful
Contract	Exchange contract between insurer and policyholder	Mutual contract between policyholder and the pool of insureds represented by the company	Donation (*tabarru*) and mutual contract (agency and/or profit sharing) between policyholder and the pool of insureds represented by the operator
Responsibility of policyholders/ Participants	Premiums payment	Contribution to the pool, cover any underwriting deficit (through retained surpluses allocated to future deficits) or benefit from underwriting surpluses	Contribution to the scheme, cover any underwriting deficit (through future surpluses) or benefit from underwriting surpluses. Some schemes involve sharing of surplus with operator through a fee
Liability of the insurer/ operator	Claims payment, using underwriting and shareholders' funds	Claims payment, using underwriting fund	Takaful benefits from underwriting fund. Interest-free loan in case of fund deficiency
Access to capital	Share, debt and subordinated capital	Debt and subordinated capital	Share capital and participants' fund (except interest-free loan from operator)
Investments	Prudential restrictions	Prudential restrictions	Sharia-compliant instruments

Source: Adaptation of IAIS and IFSB, 2006; EY, 2008.

Several issues arise from re-Takaful activities as well (Casey, 2007), however these are not within the scope of this paper[6].

In all models, losses are finally borne by policyholders only. Despite this

[6] For instance, re-Takaful (reinsurance for Takaful operators) is usually based on the *musharaka* model.

conclusion, the Takaful operator is liable to contribute via an interest-free loan if losses in the Takaful fund arise: repayment is based on future surpluses.

The flow of typical operations differs from model to model.

In the pure *mudaraba* model participants pay contributions to form a policyholders' fund, source of capital for underwriting expenses, claims, provisions, investments, and so on.

After proper provisions are taken into account, the remaining surplus is shared between policyholders and shareholders on a fixed percentage.

In the pure *wakala* model participants pay contributions, on which proper fees are charged and paid to the shareholders' fund. The net contributions are then credited to the policyholders' fund, source of capital for claims, investments, provisions and so on, whereas the shareholders' fund is used for operating expenses. After proper provisions are accounted for from the policyholders' fund, the surplus is paid back to participants.

In the combined *mudaraba/wakala* model, an explicit agreement is made on a percentage of investment profits on policyholders' fund to be transferred to the shareholders' fund as an investment fee.

Several differences arise when comparing Takaful schemes with conventional insurers and mutuals (see Table 2 for a comparison). Although they share a similar view on mutuality, cooperation and sharing/pooling of risks, as well as the attribution of surplus to policyholders instead of shareholders as in conventional insurance, they differ in the way they invest their funds (prudential requirements on one side, *Sharia*-compliance on the other) and the return of part of any surpluses to shareholders under some models.

Greater differences are evident in the comparison with conventional insurance, where maximisation of returns to shareholders and their ownership of the company are substituted by solidarity and full responsibility for profits and losses arising from invested funds.

In Takaful schemes, underwriting profits usually belong to participants, or, when a share is recognised to the operator, this is done transparently and directly by the initial contract through an agreed fee.

As one could note, one major point of difference is the investment of funds, in which regard the options appear to be much more limited for Takaful schemes than for their conventional counterparts. The Takaful contract gives policyholders more direct control over the investment of their funds, within the range of those products which are *Sharia*-compliant.

As will be discussed in more detail, the availability of *Sharia*-compliant financial instruments is at this stage very limited, and oriented to variable returns: some controversy still surrounds the offer of *sukuks* (sometimes called

'Islamic bonds') and their compliance to *Sharia* principles. These are not debt instruments, given that they are backed by tangible assets and their returns depend on the performance of these "underlying" resources: limitations on the investment-side of Takaful operator might therefore hamper their competitiveness and ability to match liabilities with assets, while at the same time providing safe returns. Similar conclusions can be arrived at with regard to some derivatives, which therefore influences and limits the risk-hedging tools available to Takaful schemes.

At the same time, access to capital is limited, given that debt instruments and subordinated bonds can not be issued, as they might involve elements not fully compliant with *Sharia* principles. These investment and capital issues have important consequences on the impact of risk-based regulatory frameworks, as will be explained in Section 3.

Meanwhile, the operator furthermore bears an explicit liability to provide interest-free loans if an underwriting loss occurs, even though the responsibility for losses is finally borne by policyholders only: the legal strength of this requirement and the true ability of the Takaful operator to comply with it (i.e. availability of funds and willingness to provide them) might greatly influence the financial soundness and solvency of these schemes (Tolefat, 2007). The issues of capital adequacy and solvency are discussed in more detail below. Mutual insurers face similar issues when considering which funds can be used as supervisory capital for the purposes of prudential solvency requirements.

Finally, it should be noted that Takaful schemes might be undertaken and managed as a profit-oriented business by the operator, especially when granting a fair return to shareholders. This, however, can lead to some operational challenges depending on the specific Takaful model adopted. Kwon (2007) observes, for instance, that as long as risks are priced correctly (i.e. no profit quota is included in premiums), a pure *mudaraba* model, can generate profits in two ways:

- with constant size of funds, through aggressive investments depending on expense ratios and share of profits returned to policyholders;
- with constant expense ratios and investment returns, increasing the size of funds by raising premium rates, selling more policies or increasing the entity's share of profits.

Improving investment performance aggressively might lead to more market and credit risks for policyholders' funds, whereas increasing premiums or changing the profits share might hamper operators' competitiveness. Debates still surround the compliance to Islamic principles of alternative Takaful models (Kwon, 2007).

3. COMPLIANCE ISSUES OF TAKAFUL REGULATION

Moving to the main subject of this paper, several regulatory issues arise directly from these differences (IAIS-IFSB, 2006; Kwon, 2007):

- the need for a body responsible for ensuring compliance with *Sharia* principles, is usually addressed by Takaful operators by a specific board: the availability of fit and proper principles for this body, and the supervisory role of its establishment have yet to be fully clarified in many countries;
- the consideration that can be given to operators' interest-free loans for solvency purposes as eligible capital;
- the solvency role of policyholders' funds as eligible capital;
- the actual risk profile of Takaful operators, depending on the scheme adopted, and its effects on solvency;
- the effects on risk profiles deriving from restrictions on the investment activity: investing in riskier assets to increase profits, or increasing funds over underwriting capacity to achieve economies of scale and scope resulting in more market and credit risks.

Although these issues have already been identified, one can nonetheless observe a general lack of a thorough regulation, and diverging approaches to Takaful supervision (IAIS-IFSB, 2006; Kwon, 2007): for instance, market entry is usually requires the availability of a minimum level of capital, but limited consideration is given to qualitative aspects of prudential supervision, such as corporate governance and market conduct[7].

Moving to European countries, regulatory practice towards Takaful is most developed in the UK, where the first operator was authorised in 2006, when Lloyd's of London launched its first Takaful syndicate (Dingwall and Griffiths, 2006). The current approach of the regulatory body (the Financial Services Authority, or FSA) involves the promotion of a level-playing field with conventional insurers. Authorisation to conduct business is therefore based on the same requirements (Ainley *et al*, 2007):

- standard of market conduct, integrity and fair treatment of customers;
- due skill, care and diligence;
- adequacy of resources to run the business in an orderly manner;
- presence of appropriate management, systems and controls (proportionally to size and complexity of business);
- control of outsourced functions and IT systems;
- transparency and cooperation with the supervisor;
- disclosure of proper information to the supervisor.

[7] On major conflicts of interests that could arise, see Tolefat, 2007.

These requirements do not represent any major burden to Takaful operators, with one exception: the role of the *Sharia* supervisory body within the regulations, and therefore the availability of persons with proper education and knowledge of Islamic principles (Kuen, 2007). Some authors have already underlined how the number of potential experts in this sector is limited (e.g. Ghani, 2007): how this will be addressed by regulators represents a major issue (Casey, 2007), especially when conflicts of interest arise from key personnel being involved with more than one operator. In the UK, for instance, the supervisor does not certify *Sharia*-compliance, but requires Takaful operators to prove its achievement.

Limits to investments and available sources of capital may limit the underwriting capacity of Takaful insurers: on these specific issues, see Section 4.

Management and disclosure to regulators of risk-profiles, especially those linked with quantitative (underwriting, credit and market risks) or qualitative requirements (e.g. legal, regulatory and liquidity risks) might represent a costly burden for Takaful operators, given their limited size and complexity of operations. In this regard the application of the proportionality principle, which will be further discussed below, could represent a proper solution.

Finally, the European Union grants the right of passporting to authorised insurers, namely the right of set up branches or do business cross-border among Member States. This means that the choice of the home-country supervisor is not indifferent, since each body might permit different approaches and impose different burdens, while at the same time affording the operator it governs full access to the whole internal market.

Considering the previous discussion, the Takaful market requires further developments in several areas in order to sustain and promote its intrinsic growth potential, for instance:

- an increase in size of players and achievement of greater numbers of rated entities;
- an increase in admissible investment classes and *Sharia*-compliant finance options;
- a convergence of international regulation, especially on eligible capital, solvency and capital requirements, risk assessment and protection of policyholders' interests through market conduct and corporate governance;
- developments of re-Takaful markets, given that capacity is still below the industry's underwriting needs;
- increase in customer awareness and education regarding insurance and its Islamic alternative, in order to promote its great growth potential.

In the European Union, some of the aforementioned regulatory issues have been addressed by Solvency II, which has been approved in its struc-

ture, but will not necessarily be implemented before 2012: the principles consider the existence of mutual and cooperative insurers and their solvency.

With reference to small enterprises, especially those in the form of mutuals, the framework directive encompasses some specific principles, without defining them in detail.

First, Article 4 excludes from the scope of Solvency II companies (regardless of their legal status) with annual gross written premiums below 5 million Euros, among other thresholds (EC, 2009a). In spite of suggestions from association of mutuals (AISAM-ACME, 2007a), the European Commission did not raise this limit to 10 million Euro, taking into account the present value of the amount stated in previous repealed directives (dated back to the 70s).

Regardless of actual figures, it should be noted that the original exemption for "undertakings whose articles of association must contain provisions for calling up additional contributions or reducing their benefits" should now be extended to all entities. In this regard, the threshold represents a very small share of the European insurance market, and therefore this might also be the case for a limited number of Takaful operators: it is reasonable to assume that if a growth in these particular schemes were to occur in Western countries, it would have to be granted by entities beyond this threshold, which themselves would come within the scope of Solvency II.

However, Solvency II will have a varying degree of impact upon insurance entities, due to the application of the proportionality principle described by its framework directive: Article 29 specifically states that requirements should be applied proportionally, taking into account the nature, complexity and scale of the risks inherent in the business. It should be noted that there is no reference in this article to the company itself, but to risks taken: this should lead to the implementation of regulatory measures that address degrees of risk, rather than legal status or size of companies. These two are certainly correlated, but not perfectly: small sized companies which nonetheless take excessive risks in their businesses should therefore be subject to proper controls. This conclusion is relevant, for instance, to Takaful operators' management of their investment risks (see Section 3).

Moreover, the proportionality principle makes general reference to the application of solvency requirements: this should mean that regulation ought to be proportionate to the nature, complexity and size of risks taken, but should at the same time be applicable to the supervision of entities. Whereabouts a proper balance between policyholders' protection and proportionality of supervisory review should be struck is still open to debate.

Proportionality is not limited to the calculation of capital requirements, but will be extended to governance, internal controls, risk management and

the overall solvency structure by the forthcoming legal measures. Again, a balance between the overarching principle of policyholders' protection and proportionality should be defined and struck.

Other regulatory issues involve the offer of "Islamic insurance products" through Takaful windows rather than fully-fledged operators (A.M. Best, 2008). Windows allow companies to solve several logistical issues, such as startup of operations, availability of skilled staff for critical tasks and so on. At the same time the whole business needs to be adapted, providing a proper segregation of Takaful business from other operations, in order to comply fully with *Sharia* principles (although it is still debatable whether this could be achieved even through a perfect separation). More separation, however, implies that less loss-absorbing capacity is attributable to other funds, which therefore limits eligible capital for solvency purposes.

On one hand, assets and liabilities could be easily segregated and attributed to a specific window, but on the other it is critical to define the role of shareholders' funds, especially regarding the strength of financial responsibilities between various lines of business and Takaful windows. It is reasonable to say that a full segregation of risks is not easily achievable, and therefore issues would arise as to the regulatory and supervisory treatment of Takaful windows, were this solution to be allowed.

Despite the advantages for companies, however, the ability of this type of arrangement to meet customers' needs must be questioned, given the attention paid by target clients to the ethical and religious suitability of these financial products.

Finally, it should be noted that Islamic financial products might also prove interesting for non-Muslims, especially those sensitive to ideas of social responsibility and the moral principles embraced by Takaful: mutual cooperation, sharing of risks and advantages, ethical investments, and so on. It has been calculated that in the near future a share as high as 20% of total revenues could arise from non-Muslims (Oliver Wyman, 2007).

Alongside cost (compared with conventional insurers) and the distribution of their products, the credibility of Takaful operators would therefore prove to be a strong competitive advantage.

4. SOLVENCY II ISSUES FOR MUTUAL INSURERS AND TAKAFUL SCHEMES

Two recent contributions by AISAM (the International Association of Mutual Insurers) and ACME (the Association of European Cooperative and Mu-

tual Insurers)[8] have underlined the most controversial issues for their members deriving from Solvency II (AISAM-ACME, 2007b and 2007c).

Excluding tax issues, these can be summarised as follows:

- the recognition of specific capital elements and deeply subordinated debt as parts of the available solvency margin;
- the excessive burden of some supervisory tools (both quantitative and qualitative) on smaller entities, that could lead to a distortion of competition across entities depending on their legal status;
- the treatment of diversification/concentration issues, especially considering size and specialisation of mutual entities, in measuring their risk exposure;
- recognition of the duration of liabilities in measuring the risk exposure of assets;
- the potentially disruptive effects of consolidation processes fostered by the new regulations, especially for smaller insurance companies (AMICE, 2010).

The issue of eligibility of funds to contribute to the available solvency margin was introduced in Section 3. As shown by Table 2 above, mutuals have more restrictions in financing: they can not raise share capital, but do have access to debt (traditional or subordinated). It is therefore likely that under a strict application of the Solvency II principles, their own funds would prove inadequate to support the risk profiles of many entities.

Another controversial issue is how other funds should be treated:

- Article 89 of the framework directive mentions that in the case of mutuals with variable contributions, calls for supplementary contributions from members can be part of ancillary funds;
- Article 91 recognises realised profits as surplus funds if not available for distribution to policyholders and beneficiaries, if authorised under national law.

Despite ongoing discussions on eligible sources of capital, it is likely that at least some of the usual sources used by cooperative and mutual insurers will fall under the category of ancillary funds, and will therefore be subject to prior approval by supervisors, or will not be available to cover the minimum capital requirement.

This issue will probably also have an impact on Takaful operators, where capital is originated mainly by shareholders' funds, but policyholders' funds play a major role in accumulating underwriting surpluses.

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[8] The two associations merged in 2008 in AMICE, Association of Mutual Insurers and Insurance Cooperatives in Europe.

At the same time, the eligibility of the interest-free loan from the Takaful operator to the policyholder's fund in order to cover underwriting losses is questionable, and subject to further requirements: Article 90 mentions a supervisory evaluation of the status of counterparties (ability and willingness to pay), recoverability (legal form, conditions of use) and information on the outcome of past calls. However, quantifying the amount of such elements is an issue as well: the commitment does not have a nominal value until losses arise, meaning that prudent and realistic assumptions should be made to attribute a proper value to their loss-absorbing capacity.

The other major issue for compliance of Takaful products with Solvency II is linked with investments and technical provisions. As mentioned above, to be *Sharia*-compliant investments should be interest-free (moreover, not attributable to forbidden products activities, such as alcohol, gambling and so on). At this stage, the number of available investment sources for Takaful operators is limited, but increasing. For instance, the *sukuk* market is growing at a 40% average rate but is still modest in size (50 billion USD) compared to other investments (Ghani, 2007): this gives rise to several regulatory issues (Tolefat, 2007).

First, Takaful schemes face a limited selection of potential investments, and diversification benefits can not be achieved from acquisitions in the traditional bond market and specific equity markets. This could lead, other variables being equal, to an increase in the market risks faced by these entities: it is reasonable to assume that traditional bonds experience a lower variability of returns compared to equity investments, even if the latter are in the form of *mudaraba* agreements. This is especially true when one considers that a limited size of markets also implies issues of concentration risks, liquidity risks and currency risks (depending on the face currency of the various issuances). However, the first *sukuk* was listed on the London Stock Exchange in July 2006, and has since been followed by others, which suggests that the situation is improving in Western countries (Ainley *et al.*, 2007). The application of capital adequacy standards, especially concentration and prudential requirements (such as minimum investments in domestic securities), may limit the underwriting capacity of Takaful insurers through the imposition of higher capital requirements in response to the increased investment risks. Moreover, the supervisory role of invested shareholders' funds is still not fully clear: their potential use in covering operating losses together with policyholders' funds, and the strength of the obligation to raise additional funds to cover for underwriting deficits (as for supplementary members' calls in mutuals) will require clarification.

Another limitation is linked with the maturities of these investments: as-

set/liability matching might be difficult for Takaful schemes if availability of longer term investments is heavily limited, specially for family (life) products.

Solvency II implies a further supervisory issue regarding investments. Article 134 of its framework directive states that the pledging of assets by supervisors is prohibited, but assets held to cover technical provisions, if related to risks situated in the EU, must be localised within the EU. No further guidance on this point has yet been provided, in particular whether localisation means listing, issuance or other requirements. However, it could be a hard entry-barrier for Takaful operators to find *Sharia*-compliant investments localised in Europe, given that even outside the Community their number is limited.

Finally, Article 119 imposes a specific requirement which might prove to be an excessive burden to all small and medium-size entities: where the risk profile of the undertaking deviates significantly from the assumptions underlying the standard formula for the calculation of the solvency capital requirement, supervisors may require them to use an internal model to calculate the whole requirement or part of it.

At this stage, the development of a standard formula is in itself proving a hard task both for European authorities, and for major insurance players. It is reasonable to assume that for smaller entities, the cost of developing a partial or full internal model will be excessive and not counterbalanced by proper future benefits (namely, lower capital requirements or improvements in internal risk management).

The chance that the different risk profile underlying mutuals, cooperative insurers and Takaful schemes would lead to the supervisory requirement of an internal model might result in a competitive disadvantage for these operators.

It is unquestionable that Solvency II will introduce challenges and changes to the European insurance market. At this stage, however, it is not easy to identify solutions to many of the issues examined above: the implementing measures will contain much more detail and will clarify where and how these opportunities and threats will materialise. Nevertheless it is possible to shed some light on what should be expected by the Takaful industry, were the European untapped market potential to be further explored.

Clarifications on Solvency II implementation measures are expected by 2011[9], but in the meantime the industry should be ready to face it. Harmonisation of Takaful schemes, development of Takaful supervisory standards, regulatory guidance and sharing of best practices are the main responsibili-

[9] This anticipation of one year before full implementation is deemed sufficient to allow full compliance by insurance and reinsurance markets.

ties that fall under the scope of international organizations. This view is shared by mutual and cooperative insurers, who call for the achievement of a European Mutual Society statute.

Global prudential standards would improve the benefits of mutual recognition and ease foreign entities' access to international markets, to the benefit of potential investors and customers.

At the same time, other challenges should be faced by the Takaful industry itself. Improving their management and reducing the gap with traditional insurers, together with achieving progress in the areas of innovation, competitiveness, operations, policies and practices are just the most recurrent topics that usually accompany discussions on strategies for the Takaful industry.

One final point should see a common commitment from authorities and market players: the education of actual and potential customers towards the understanding of insurance principles and of alternatives represented by Takaful schemes.

As a last point for discussion, it should be considered that mutual and cooperative insurers could themselves represent a convenient vehicle for the distribution of Takaful products. Many of these operators have considerable strength and recognition by market players, share a similar view on the benefits of cooperation, and are already in touch with regulators and supervisors regarding the issues of Solvency II. Their sensitivity to ethics and connection with customers are also similar. Mutual operators, therefore, have a competitive advantage for the distribution of Takaful products compared to the establishment of new entities.

Their weaknesses are probably in the specific knowledge of Islamic financial instruments, as well as their ability to raise confidence in potential customers towards their compliance to religious principles. These issues could be solved by partnerships between mutuals and Takaful operators; however, long-term investments in education of staff and customers are expected to be needed before the European untapped market potential could be profitably exploited.

5. CONCLUDING REMARKS

The introduction and diffusion of Takaful schemes in the European Union involves several opportunities for consumers and financial markets, but will also face some issues in the light of the recently approved risk-based regulatory framework for insurers and reinsurers (Solvency II).

In particular, similarities and differences between such schemes and traditional insurance, as well as mutual and cooperative insurance have been underlined. This paper tries to shed light on some of the major issues identified by IAIS and IFSB in their joint paper (2006), namely financial and prudential regulation and the supervisory review process.

The history of Takaful is short, and its current stage of development is in the middle of a path to the achievement of its full potential. It is unquestionable that its core beliefs of shared responsibility and mutual cooperation for the protection of members are deserving of the attention and care of regulators and supervisors world-wide. However, its particular approach to business practice represents a departure from Western financial principles, that might render their reconciliation with risk-based regulation difficult, if not almost impossible at the moment.

Given that Takaful shares several similarities with mutual and cooperative insurance, emerging issues for those entities have been analysed, and their extensibility to Takaful schemes described in more detail.

Proportionality of solvency regulation and supervisory approach to entities has been established as a major principle in the framework directive, although no implementing measures which adopt this approach have yet been developed. This might represent the proper answer to claims arising from mutual and cooperative insurers, and easily extended to Takaful schemes. Nevertheless, proper drivers for investments, sharing of surpluses under specific Takaful models and availability of capital sources are issues that will pertain more heavily if not exclusively to this industry.

Still unsolved, but not discussed in detail here, are the issues of corporate governance, transparency and market conduct, as well as the regulatory approach to the role of the *Sharia* supervisory board.

Moreover, examining the stage of development of Solvency II, the major challenges that have been identified are those of eligibility of capital sources as available solvency margin and prudential supervision on investments and technical provisions (i.e. their effects on entity's risk profile). Again, it is difficult to identify potential solutions, given the lack of implementing measures and of clarity as to the detailed approaches that will be adopted by the definitive European solvency requirements, expected in 2012. Despite this delay, time is a crucial factor for the solving of Takaful specific issues, such as the development of re-Takaful, of financial markets (such as *sukuks*) and the provision of guidance and education to operators and potential/existing customers.

As a final general remark, it has been underlined that European mutual and cooperative insurers are already part of the Solvency II discussion and

are adapting their practices and operations towards a risk-based supervision. At the same time, they know the European market and its players, and also share the mutuality and cooperative principles of Takaful schemes. This could represent a competitive advantage for the introduction and distribution of Takaful products, or the establishment of joint initiatives to attract customers particularly sensitive to ethical (or, if applicable, religious) approaches to finance. What these players lack is knowledge of Islamic financial instruments, and farseeing partnerships might bridge this gap for the benefit of European customers. Islamic banks, already active in Western countries, could represent another group with a potential competetive advantage in distributing Takaful products through their cross-selling capabilities, similar to conventional bancassurance (in this case, named *bancatakaful*): given that they already provide services to a significant number of customers and that already have specialised knowledge of customers, markets and regulators, might face fewer issues, and be able to take advantage of their credibility and reputation.

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Résumé

Cet article examine l'application des principes de contrôle en matière de solvabilité, ainsi que l'application de la directive-cadre européenne Solvabilité II au système Takaful, compte tenu de sa croissance potentielle au sein des pays occidentaux et islamiques.
Étant donné la nature particulière de ce système, on a soulevé de nombreuses préoccupations quant à l'applicabilité des standards internationaux aux fins d' une supervision efficace.
D'une part, il existe un nombre non négligeable de clients potentiels dans de nombreux pays occidentaux, toutefois, seuls peux d'entre eux disposent d'une quantité limitée de produits, à cause, entre autre, des contraintes normatives et de contrôle. D'autre part, dans de nombreux pays émergents ce système constitue une partie importante du secteur des assurances, et ce malgré de faibles taux de pénétration de l'assurance et une diffusion restreinte d'un cadre spécifique de réglementation et de contrôle qui serait un facteur de risque pour les clients en cas d'un événement extrême.
Cet article étudie les principales difficultés liées aux mesures de contrôle par rapport à l'introduction des assurances Takaful dans les pays européens, compte tenu de l'adoption de la directive-cadre Solvabilité II. Son approche, s'articulant autour de trois piliers, définit les standards en matière financière, de gestion des compagnies et du risque, ainsi que la nécessité de transparence et d'une majeure publicité des informations. Le système Takaful pose de problèmes dans tous ces domaines (notamment, l'envergure des risque de marché, la définition du capital requis, les conflits d'intérêt potentiels, la ségrégation des fonds et la responsabilité financière).
Les assureurs mutuels et coopératifs font face aux mêmes problèmes, mais d'autres sont bien plus spécifiques au système Takaful: l'application du principe de proportionnalité est encore en phase de développement et sa réconciliation pourrait ne pas être évidente.
L'objectif de cet article est de mettre en évidence les problématiques de Takaful, en particulier en ce qui concerne la solvabilité et la supervision prudentielle: ces réflexions pourraient venir en aide aux économies émergentes, ainsi qu'à une amélioration du cadre de solvabilité, pourvu que la supervision fondée sur le risque soit plus largement adoptée en tant que standard.

Mots clés: Supervision de l'assurance, réglementation de solvabilité, solvabilité II, Takaful, Assurance Islamique, adéquation des fonds propres, gouvernance, divulgation