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# Adequacy of Minimal Capital Requirements for Life Insurance Companies in Kenya

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**Abstract**
**Purpose:** The study sought to examine the challenges and strategic responses of Life Insurance Companies in Kenya to the minimum capital requirements. The study was guided by the following specific objectives: to evaluate the adequacy of the proposed minimum capital requirements given the higher risk environment that Insurance Companies are operating within; and to analyse the challenges posed by minimum capitalization and the strategic responses employed by the Life Insurance Companies in Kenya.**Methodology:** The study focused on all the Life Insurance companies in Kenya, the study respondents being the Chief Executive Officers, who are charged with the responsibility of charting the strategic direction of the respective Life Insurance companies. A case study design was used with a questionnaire as the main data collection tool. In addition, personal interviews were used, guided by an interview schedule. The data was analyzed by employing descriptive statistics such as frequencies, mean scores and standard deviations. **Results:** The findings of the study show that despite the increase in minimum capital requirement for the various categories of insurance companies, the minimum required capital amounts still fell far below expectations and higher figures were suggested. Indeed the increase in minimal capital requirements had not had a significant effect on the business of the life insurance companies. There is thus need to involve all industry stakeholders in order to arrive at minimum capital requirements that would be agreeable to all, for enhanced effectiveness in the industry. Based on findings of the study, there should be enhanced disclosure of financial information by Insurance companies such that the public will have greater access to information about the financial stability of insurers. The industry regulators should ensure that competition resulting from solvency will force insurers to comply with quality and security standards.
**Keywords:** Adequacy, Minimal capital requirements, Life Insurance Companies

**ABBREVIATIONS**

| | |
|---|---|
| AIRB | Advanced IRB Approach |
| AKI | Association of Kenya Insurers |
| CAD | Capital Adequacy Directive |
| CEOs | Chief Executive Officers |
| EL | Expected Losses |
| FIRB | Foundation IRB Approach |
| GDP | Gross Domestic Product |
| IAIS | International Association of Insurance Supervisors |
| ICP | Insurance Core Principles |
| SA | Standard Approach |
| SPSS | Statistical Package for Social Sciences |
| UK | United Kingdom |
| UL | Unexpected Losses |
| US | United States |
| VaR | Value at Risk |

## 1.0 INTRODUCTION

### 1.1 Background of the Study

The International Association of Insurance Supervisors (IAIS) Insurance Core Principles (2000) describes capital adequacy, inter alia, as an area that has to be addressed in the legislation or the regulations laid down by the insurance regulatory authorities or other competent bodies in each jurisdiction. The purpose of supervising insurers is to maintain efficient, fair, safe and stable insurance markets for the benefit and protection of policyholders. Capital adequacy and solvency regimes are one of the most important elements in the supervision of insurance companies. An insurance company is solvent if it is able to fulfill its obligations under all contracts

 

under all reasonably foreseeable circumstances. Insurance regulatory authorities require insurers to maintain assets or surplus capital in excess of liabilities, that is, a solvency margin.

### *1.1.1 Minimum Capital Requirements*

All activities pursued by a company are inherently risky, although to varying degrees. Decisions made at present will show their full consequences only in the future and are affected not only by the behavior of competitors, customers, suppliers, or regulators, but also by the state of nature (Alfon and Andrews, 1999). Even the best evaluated decisions can lead to losses in unforeseen circumstances. This risk is at the core of corporate activities and companies have to ensure that they can bear the risks they are facing. Capital, used in this paper as a synonym for equity unless otherwise stated, acts as a safeguard against the losses that might occur as a result of these risks (Artzner *et al.,* 1999). With capital a company is only forced into financial bankruptcy if the losses exceed the capital held. As losses are related to the risk of a company, it becomes apparent that capital and risks are closely related with each other.

In this context, the most important question is how much capital a company needs for a given risk or, equivalently, how much risk it can take with a given capital. This so-called capital adequacy has become increasingly important in recent years, primarily in the regulation of financial institution activities and insurance companies.

Minimum capital requirements are put in place to ensure financial institutions have sufficient capacity to undertake the intermediation function necessary for the development of the economy. Well capitalized financial institutions are able to undertake greater business expansion and allocate resources in order to develop capacity to compete more effectively in a more liberalized environment. The Basel Accord on Capital Adequacy, Basel Committee on Financial institution Supervision (1988), with its amendments as developed by the financial institution for International Settlements (BIS) serves as the basis of most national regulations in advanced economies. The rules currently require a minimum capital of 8 per cent of the risk-weighted assets of the financial institution. Thus far the methods employed to determine the risks of assets are very schematic, but can be expected to improve substantially with a new accord, currently under consideration, called Basel II, Basel Committee on Financial institution Supervision (2001). Similar rules apply also to insurance companies as well as securities firms. There are usually no rules governing the capital adequacy of non-financial companies, however, stakeholders often employ implicit rules when assessing the creditworthiness of a company, e.g. rating agencies or financial institutions.

Efforts in recent years to develop a theoretical approach towards capital requirements, in financial institution and insurance primarily, gave rise to using value at risk (VaR) as the appropriate risk measure to base the capital requirements on. More recently expected shortfall has been proposed due to its superior properties. A common feature of all these contributions is that they attempt to use a single number as a risk measure. It is obvious that it is very difficult to condense all properties of the distribution of losses into a single number, despite advances like the coherence of risk measures, Artzner *et al.* (1999). Rootzén and Klüppelberg (1999) show this limitation of the current approach towards risk measurement in the presence of catastrophic risks.

Mostly in a separate regulation the liquidity of companies, again confined to financial institutions and insurance, is addressed. We can view this regulation as an attempt to manage the risks arising from the asset structure of a company in order to ensure that it does not become insolvent. Although the losses arising from risks and a lack of liquidity are closely related, it is usually treated separately. Thus a more holistic approach towards asset and liability management is still outstanding (Basel Committee on Financial institution Supervision, 2001).

The current study sought to help the insurance companies determine whether the current minimum capital requirements are sufficient to enable them cushion the risks they face.

### *1.1.2 Insurance Industry*

The wave of financial globalization has accelerated the development of insurance markets around the world. The development, though encouraging, has also brought about many challenges and risks for the companies involved in insurance business. Specifically, many insurance companies increasingly focus on operations beyond their national boundaries. However, regulatory and supervisory systems were still sheltered within the domestic zone. In order to address this issue, the International Association of Insurance Supervisors (IAIS) was established in 1994. Since its foundation, IAIS has been involved in the development of insurance mandates and fundamental activities that helped in strengthening the regulatory infrastructure of insurance markets. Most importantly, in 2003, IAIS developed the essential regulatory and supervisory framework, the Insurance Core Principles (ICP) and several key principles, standards and notes for guidance. The development of core principles is aimed at enforcing regulatory and supervisory standards around the world in order to face the challenges due to increasingly globalized insurance and financial markets.

The Insurance industry plays a significant role in a growing economy in terms of providing indemnification of risks faced by both individuals and companies, in addition to being an institutional investor. The growth in the assets of the insurance sector has primarily been due to the enhanced paid-up capital

 

requirements which ultimately increased the risk management capacity of the insurance companies and enabled them to undertake increased insurance business with improved retention capabilities (Mackay, 2003).

The most significant measure of an industry or an activity is its contribution towards employment generation, strengthening linkages with other sectors of the economy in promoting growth and stability, and creating a sizeable impact on the national income of a country. In developed countries, the Insurance industry is a necessary part of daily life and serves all the above mentioned purposes as opposed to developing countries where insurance is still dependent upon an individual's net disposable income, religious beliefs and government policies. Hence the economic significance of insurance as measured by the share of total gross premiums to GDP, is very high in developed countries in contrast to developing countries.

Generally, insurance companies help businesses and individuals in managing risks which can severely impact their economic well-being. Moreover, insurance companies are also termed as the largest investors in capital markets, in addition to being characterized as the sole suppliers of insurance business to reinsurance companies. This is due to the increased activities in the areas of international trade and commerce and financial institution borrowing which also creates a sizeable demand for non-life insurance, whereas life insurance is either dependent on corporate management practices or on the preference of individuals. Moreover, the composition of assets shows a gradual shift in the ownership structure from state controlled to the domestic private market.

### *1.1.3 Regulation of Insurance Sector in Kenya*

After independence in 1963 the Government of Kenya saw the need to have some control of the insurance sector. The market was then dominated by branch offices of foreign insurance companies particularly from the United Kingdom and India. The Insurance Companies Act of 1960 was based on the UK legislation. In 1978 the Minister for Finance issued an order stopping the operations of branch offices and all insurance companies had to be locally incorporated. Thereafter in the early 1980's the process of drafting a law to regulate the insurance sector was started by the government with the support of UNCTAD.

In 1986 the Insurance Act was enacted with an enforcement date of 1st January 1987. The Insurance Act Cap 487 introduced the Office of the insurance regulator and stipulated the various requirements for registration of Insurance companies, reinsurance companies, Insurance brokers, Insurance agents, Loss Adjusters, Assessors, Insurance Surveyors and other service providers. Kenya is one of the largest insurance markets in Africa. There were 43 licensed insurance companies in 2009, twenty companies wrote general insurance only, and seven wrote long term insurance only while fifteen were composite. There were 201 licensed insurance brokers, 21 medical insurance providers, 2664 insurance agents, 2 locally incorporated re-insurers, 23 loss adjusters, 1 claims settling agent, 8 risk managers, 213 loss assessors/investigators, 30 insurance surveyors and 8 risk mangers (AKI, 2009).

The Insurance Act of Kenya is very comprehensive and generally provides for the following: Authorization of all persons transacting insurance business in Kenya; Minimum capital requirements for insurance companies and brokers as well as local participation. Insurance companies must be owned 1/3 by Kenya citizens while brokers must be owned 60% by locals; Local incorporation. Branch operations or subsidiaries of foreign companies are outlawed; Reinsurance arrangements must be approved by Insurance Regulatory Authority; Margins of solvency are prescribed and the requirement of admissibility of assets is quite conservative; Investments of assets by insurers are controlled under the Act; Separation of assets attributable to life business from those of general business; Balance sheets and other financial statements are in a prescribed format; Audited accounts must be submitted by 1st April of the following year and there are strict penalties for delays or for falsifying statements; On site inspections of all members of the insurance industry; Management expenses including acquisition costs are monitored and the law provides maximum ceilings; Rates, policy terms and conditions of insurance contracts are approved by the Commissioner; Approval of Boards of Directors, CEOs and Managers of Insurance companies; The Act provides for the intervention in the management and eventual winding up of insurance companies; The Act also regulates the process of transfers, amalgamations and mergers of Insurance companies; and The Act stipulated minimum basis for actuarial valuations of all statutory funds and schemes, which must be conducted annually. However, there was a recent amendment where the margin of solvency for long term insurance companies shall be admitted assets of not less than the aggregate value of admitted liabilities and ten million shillings or 5% of admitted liabilities whichever is higher.

## 1.2 Statement of the Problem

Today, Life Insurance Companies are competing not just on a national arena, but increasingly at an international and global level. In Kenya, there are 7 insurance companies that write long term business while 15 others are composite. The penetration of Insurance computed as a ratio of Gross premium to Gross Domestic product was 2.62% in 2009 compared to 2.54% in 2006 (AKI, 2009). Long term insurance recorded a penetration ratio of 0.80% while that of general insurance was 1.82% (AKI, 2009).

Competition has further been aggravated by emergence of Health Management Organizations and

 

Pension Administration Schemes that now provide services traditionally offered by Insurance companies. Competitive pressures have led insurers to assume greater risk in order to offer consumers more attractive prices and products, resulting in larger and more frequent insurer failures (Klein, 1995). With increased emphasis on globalization, regionalization and the opening of insurance markets in the region, the industry now faces greater competition from its neighbors. Faced with the increased environmental turbulence, insurance companies in Kenya can no longer rely on their historical strengths. Since insurance companies play a significant role in the economic development of this country, their survival and success in this turbulent environment is vital.

In the recent past, the insurance sector in Kenya has been characterized by the collapse of a number of insurance companies largely attributed to inadequate legislative and regulatory framework and subsequently a weak financial base. In an effort to improve the financial strength of insurance companies, the minister for finance proposed the following measures to increase paid up capital for: (i). long-term insurance business from Kshs.50m to Ksh.150m; (ii). General insurance business from Ksh.100 million to Ksh.300m; and (iii) Composite insurance business from Ksh. 150 million to Ksh.450 million. The insurance companies are expected to comply with these requirements within two years.

In Kenya, studies in the insurance sector so far include the following: - Magbenu (1976), focused on the portfolio holding of insurance companies in Kenya; Nyamila (1985), focused on the investigation of factors that influence motor insurance premium in Kenya; Angima (1987), focused on the adequacy of Life Assurance in Kenya; Mirie (1997), focused on marketing of insurance services; and Gitari (1989); focused on the risk-return relationship among Kenya public quoted companies.

None of the above studies focused on the adequacy of minimum capital requirements in the insurance sector in Kenya. The current study attempted to bridge the knowledge gap by seeking answers to the following research question:- (i) Is the proposed minimum capitalization requirement adequate, given the higher risk environment that Insurance Companies are operating within?; and (ii) What are the challenges posed by minimum capitalization and the strategic responses employed by the Life Insurance Companies in Kenya?

### 1.3 Objectives of the Study

#### *1.3.1 General Objective*

The current study sought to investigate the adequacy of the proposed minimum capitalization, establish the challenges posed by minimum capitalization and the strategic responses employed by Life Insurance Companies in Kenya.

#### *1.3.2 Specific Objectives*

The study was guided by the following specific objectives:-

(i) To evaluate the adequacy of the proposed minimum capital requirements given the higher risk environment that Insurance Companies are operating within

(ii) To analyse the challenges posed by minimum capitalization and the strategic responses employed by the Life Insurance Companies in Kenya

## 2.0 LITERATURE REVIEW

### 2.1 Introduction

This chapter presents a review of the literature related to the purpose of the study. The chapter is organized according to the specific objectives in order to ensure relevance to the research problem. The review was undertaken in order to eliminate duplication of what has been done and provide a clear understanding of existing knowledge base in the problem area. The literature review is based on authoritative, recent, and original sources such as journals, books, thesis and dissertations.

### 2.2 Justification for state regulation

According to IAIS (2002), the goal of capital adequacy requirements in to provide banking, securities and insurance supervisors with principles and measurement techniques (a) to facilitate the assessment of capital adequacy on a group-wide basis for heterogeneous financial conglomerates; and (b) to identify situations such as double or multiple gearing which can result in an overstatement of group capital and which can have a material adverse effect on the regulated financial entities. It has been said that the main justification for state regulation should be to protect the public, but this aim must also be accompanied by socially desirable strategy. During his address to the 15th African Insurance Organization conference held in Harare in 1988, the then Nigerian Insurance Commissioner Mr. Eugene Okwor observed that:

> *…….it is not enough for governments to concern themselves mainly with ensuring the safeguard and protection of policyholder's interests, but also to create the atmosphere for the growth of the industry and encourage it to respond to the prevailing needs of the society in general. These can be achieved by creating suitable investment opportunities*

 

*and taking monetary and fiscal measures (Okwor, 1988: 35)*

Indeed, governments have a duty to impose on insurance enterprises regulations that go beyond the normal provisions of company law. A few examples of government intervention in the conduct of insurance business can be traced back several centuries. However, it was during the 19th century that the mushrooming of new insurance companies in the United States and Europe, often followed by their equally rapid failure due to increasing competition for business, management incompetence and sometimes fraud, led to public demands for official supervision of the formation, organization and financial well-being of insurance companies and certain aspects of behavior. Before examining the various elements of insurance supervision, it may be worthwhile to list first those characteristics of insurance business which single it out from other industries for special treatment. Insurance contracts are promissory in nature in that at the time of the sale the insurer undertakes to make a payment to, or on behalf of the policyholder upon the occurrence of a specified future event or at a future date.

The value of the insurance contract to the insured is entirely dependent upon the ability and willingness of the insurer to honor its undertaking, which in some cases may fall due many years after the commencement of the contract. The amount to pay and when to pay may not be known in advance and will depend upon chance as protection is normally provided upon against uncertain future events. Major costs relating to these obligations are not known at inception of a contract when the premiums are normally fixed. Eventually the claims costs may substantially deviate from the contract expectations.

According to Stoughton and Zechner (1999), for insurers to be able to meet their obligations, they must: (i) hold sufficient funds to cover run-off risks and; (ii) manage, adequately their continuing underwriting risks; and (iii) invest prudently, premiums collected to generate adequate returns to cater for extra risks. The value of assets, premiums and investment returns do fluctuate substantially from time to time. The insurance industry plays a vital role in the economic and social development. Insurance is a mechanism for transferring risk from those exposed to uncertain loss producing events to insurers. Insurance companies in a bid to manage such risks do resort to creating large pools of similar and homogenous risks in addition to seeking further protection by way of reinsurance.

Denault (2001) identified the broad areas, which comprise the main regulatory tools. These are: (i) Entry restrictions through licensing; (ii) Disclosure of information; (iii) Conduct of business; (iv) Product development; (v) Governance and fiduciary responsibilities; (vi) Solvency and capital requirements; (vii) Liquidity requirements; and (viii) Accountability requirements. Historically, supervisory examinations focused primarily on compliance; that is, on finding contraventions of the rules and regulations regardless of their materiality. This view is gradually changing to a more pro-active risk-based approach, which emphasizes on development of policies geared to ensuring capital adequacy and good corporate governance.

### 2.3 The Concept of Minimum Capital Requirements

Capital provides a foundation for an organization's future growth and protects the organization against unexpected future losses. For instance, adequately capitalized and well-managed financial institutions are better placed to withstand losses and to provide credit to consumers throughout all business cycles. The major challenge has always been to determine how much capital is needed to create a sufficient buffer against future unexpected losses. If capital levels are too low, financial institutions may be unable to absorb high levels of losses and thereby increase the risk of financial institution failures, which may put depositors' funds at risk. On the other hand, if capital levels are too high, financial institutions may not be able to make the most efficient use of their resources, which may affect their ability to make credit available.

The international debt crisis in the 1970s brought to the fore the issue of the regulatory supervision of internationally active financial institutions and was a catalyst for the setting of international standards for capital adequacy by way of the original Basel Capital Accord (Basel I), which was announced by the Basel Committee on Financial institution Supervision in 1988 and implemented in 1992. It established a method of relating capital to assets using a simple system of risks weights and a minimum capital ratio of 8. This framework became the basis for financial institution capital regulation and was adopted in more than 100 countries, including Kenya. Its aim was to increase the levels of capital in the financial institution industry, which had dropped significantly since 1970. Basel I requires financial institutions to group their exposures into pre defined "classes", which reflects similar types of exposure. Exposures to the same kind of borrowers (such as all balances with other financial institutions or exposures to all corporate borrowers etc) are subject to the same capital requirement.

A major criticism of Basel I is its non-recognition of the potential differences in the creditworthiness and risks that each individual exposure within a "class" of exposure might pose. For example, in a corporate loan portfolio not all loans will have the same risks, and it has been argued that lending to different governments pose different risks. Basel II adopts more risk-sensitive minimum capital requirements for financial institutions. It provides incentive and creates opportunity for financial institutions to improve their risk measurement, management and reporting processes, which is expected to improve financial institutions' overall efficiency and resilience. It is also expected to strengthen market discipline by enhancing transparency in financial institutions'

 

financial reporting processes.

The approach will bring the following improvements in the capital framework: (i) It aligns the minimum regulatory capital held against credit risk with formal risk-assessment of individual counter-parties; (ii) For the first time, financial institutions will be required to hold capital against operational risks; (iii) Regulators will set total capital requirements by assessing financial institutions' overall risk profiles and their risk measurement and management processes; and (iv) New disclosure rules, which are aimed at giving more information to the market on the adequacy of financial institutions' capitalization.

Whilst it will in due course be beneficial for financial institutions to move to adopt certain aspects of Basel II, the level of sophistication and products range available in our market may make it difficult for financial institutions to employ and fully utilize all its aspects. Indeed responses received by the Financial institution for International Settlements from 22 African countries to a questionnaire on Basel II indicated that three quarters of the respondents intended to implement Basel II between 2006 and 2009 but that such implementation would be in progressive stages with the less sophisticated approaches being gradually adopted before moving on to the more advanced approaches.

Of course, capital adequacy rules alone will not persuade individuals to deposit more of their money in the financial institution. Other considerations come into play such as the extent to which any interest return on such deposits is eroded by inflation or taxation.

## 2.4 Minimum capital requirement for covering credit risk

Credit risk is defined as the risk resulting from the failure of the counterparty (debtor) and is connected with losses on the side of the creditor (bank). Counterparty's failure in this context is understood to mean the state reached by a debtor when it is not able or willing to settle its obligations towards the bank in accordance with the agreed conditions. The loss resulting from this risk comprises two parts: (i) expected losses from a debtor's failure (EL); and (ii) unexpected losses from a debtor's failure (UL). With the aim of eliminating the transfer of these losses from the risk to the depositor, a financial institution must correctly identify, quantify and create funds for covering the credit risk. While expected losses are a component of the calculated costs of a financial institution's credit business and are reflected directly in the interest rate, a financial institution should cover unexpected losses by a minimum capital requirement.

According to Denault (2001), a key variable in quantifying the minimum capital requirement is the receivable's risk weighting. It is primarily in the manner of determining this variable for individual receivables that lie the main differences between Basel I and Basel II, as well as between the individual approaches contained in Basel II itself. Several approaches with a varying degree of administrative demands, complexity and risk sensitivity are given in Basel II for quantifying the minimum capital requirement.

### *2.4.1 Approaches to quantifying the minimum capital requirement*

In contrast to Basel I, Basel II provides the following three approaches to calculating the minimum capital requirement for covering credit risk: (i) Standardized Approach (SA); (ii) Foundation IRB Approach (FIRB); and (iii) Advanced IRB Approach (AIRB). The administrative demands, implementation costs and amount of the minimum capital requirement in the case of the individual approaches differ significantly. A successful introduction of the new rules into banks' practice will require large investments in information systems, preparatory training of professional staff and improving the overall system of risk management. The extent of this initial investment will, depend on how the particular bank at present has its rating systems set and on which approach it opts for (Brealey, 2001).

According to Danielsson *et al* (2001), initial investments will be returned in the form of lower capital requirements. Achieving a lower capital requirement is though first and foremost conditional upon a client having a high rating. A low capital requirement should be manifested at a bank in the form of lower costs for capital and consequently a lower cost of credit for businesses, which for both sides means a competitive advantage. On the side of the bank a low capital requirement will also be manifested in the form of a growth in its lending ability. A competitive advantage of low costs for credit together with a bank's high lending ability creates good conditions for the bank to increase its market share. In this regard it must be emphasized that, conversely, a business's low rating will negatively influence the bank and business in all the mentioned ways.

## 2.5 Principles on Capital Adequacy and Solvency of Insurers

The International Association of Insurance Supervisors (IAIS) (2002) set out principles that should serve as the basis for solvency regimes. The Principles on Capital Adequacy and Solvency as set out by the IAIS are applicable to all insurance companies and are relevant for evaluating the solvency of life insurance undertakings and non-life (or general) insurance undertakings. The extent to which the principles will be directly applied with respect to reinsurers will depend on the degree of regulation of the reinsurance industry within the relevant jurisdiction. 6. Adherence to these principles by insurance regulatory authorities does not eliminate the need for consumers to take the utmost care in assessing the risks and the suitability of an insurance product to their needs.

 

Insurance companies should be required to disclose relevant information to the public. In addition, the principles do not remove the need for an insurer to carefully manage the risks of the business it undertakes. A sound supervisory system has to combine capital adequacy and solvency regimes with requirements for risk management systems for risk reduction and mitigation.

The principles are discussed as follows:

*Principle 1: Technical provisions:* Technical provisions of an insurer have to be adequate, reliable, and objective and allow comparison across insurers. Adequate technical provisions are the cornerstone of a sound capital adequacy and solvency regime. Accordingly, technical provisions have to be calculated in a reliable, objective and consistent manner across insurers. The methodologies and accounting practices used in establishing the technical provisions and in the treatment of the assets, particularly those available to cover the technical provisions, have to be considered when forming the solvency requirements that build upon the technical provisions. The capital adequacy and solvency regime needs to take into account the valuation of liabilities including the technical provisions. Technical provisions should be valued on a prudent and transparent basis. The technical provisions have to be adequate to meet the obligations to policyholders. An insurer has to have regard to its own experience and, where appropriate, market experience in determining its technical provisions. The technical provisions should include allowance for outstanding claims, for future claims and guaranteed benefits for policies in force, as well as expenses. Reliability and comparability of technical provisions is enhanced by the use of experts. The objective assessment of provisions means an unbiased assessment using an objective process, even though the valuation of insurance business includes some uncertainty in the estimation of claims.

*Principle 2: Other liabilities:* Adequate provisions must be made for all other liabilities insofar as they are not included in the technical provisions. Supervisors should ensure that an insurer makes adequate provisions for all of its liabilities. This may include obligations to third parties and amounts owed that are in dispute.

*Principle 3: Assets:* Assets have to be appropriate, sufficiently realizable and objectively valued. Insurance companies have to invest having regard to safety and return. The assets also must be sufficiently diversified and spread and should secure liquidity of the insurance company in order to ensure that the liabilities under insurance contracts can be fulfilled as they fall due. For example, assets held with related parties on a non-commercial basis and intangible assets may not be readily marketable, may have a value other than that which can be used to fulfill policyholder obligations, or may be unavailable due to encumbrances, special privilege or other third-party interests, and therefore, are generally inadmissible or not available for solvency purposes.

The regulatory framework or insurance supervisory authority may impose other requirements on the assets to allow for items such as: (i) concentration risk; (ii) credit risk; (iii) market risk; (iv) liquidity risk; and (v) liquidation risk. In dealing with concentration risk, supervisory rules may prohibit the holding of an individual asset or a class of assets in excess of a certain level. Alternatively, rules may not limit such holdings. In the case where concentrated holdings are permitted, the capital and solvency regime should ensure that only a certain level of the holding is able to be counted toward meeting the capital adequacy and solvency requirement.

Objective and consistent valuation of assets is based on prudent and transparent accounting standards and practices and can be enhanced by the use of experts. Solvency and capital adequacy regimes must take account of the basis used in the valuation of the assets. Prudent accounting standards and practices should be encouraged.

*Principle 4: Matching:* Capital adequacy and solvency regimes have to address the matching of assets with liabilities. The capital adequacy and solvency regimes should address the risk of loss arising from mismatches in the: (i) currency; (ii) timing of cash flows; and (iii) amount of cash flows, of the assets and the liabilities of the insurer adjusted to take account of off-balance sheet exposures.

*Principle 5: Absorption of losses:* Capital requirements are needed to absorb losses that can occur from technical and other risks. Insurance companies must be able to evaluate the risks that they underwrite and to establish an adequate level of premiums. Nevertheless, under-pricing can occur by underestimating the risks, changes in the claims experience, or inadequate underwriting. Insurance companies need to have sufficient capital to absorb the unforeseen losses which can result. This capital is also needed to absorb losses from other risks including other technical risks. Among the risks that capital adequacy and solvency regimes should have regard to include: (i) other current technical risks (including deviation risk, risk of error, evaluation risk, reinsurance risk, operating expenses risk and risk associated with major or catastrophic losses or accumulation of losses caused by a single event); (ii) special technical risks (including liquidation risk and the risk of excessive or uncoordinated growth); (iii) operational, market, organizational and conglomerate risks; and (iv) investment risks (including risks related to the use of financial derivative instruments and also depreciation, liquidity, matching, interest rate, evaluation and participation risks).

*Principle 6: Sensitivity to risk:* Capital adequacy and solvency regimes have to be sensitive to risk. The capital adequacy and solvency regime comprises the: (i) valuation of liabilities (including the technical provisions); (ii) requirements on assets (including requirements for valuation of assets); (iii) definition of appropriate forms of capital; and (iv) required solvency margin.

 

The valuation of assets and liabilities depends on the accounting framework of the jurisdiction. The required solvency margin should reflect risks not taken into account in valuing liabilities and requirements on assets. This includes off-balance sheet exposures. The capital adequacy and solvency regime as a whole has to be related to the risk faced by an insurer and should remain adequate at all times as this risk changes over time. Supervisors may consider the use of internal capital models as a basis for a capital requirement as long as this model is assessed as adequate for the purpose by the supervisor.

*Principle 7: Control level:* A control level is required. Insurance regulatory authorities have to establish a control level, or a series of control levels, that trigger intervention by the authority in an insurer's affairs when the available solvency falls below this control level. These control levels may be supported by a specific framework or by a more general framework providing the supervisor latitude of action. The control level has to be set sufficiently high to allow intervention at an early enough stage in an insurer's difficulties for there to be a realistic prospect that this action might rectify the situation. The supervisory regime must provide for some means for the orderly exit of insurers from the market and for clearly identifying or establishing the status of policy holders' vis-à-vis other creditors.

*Principle 8: Minimum capital:* A minimum level of capital has to be specified. The regulatory framework has to set out a threshold minimum capital requirement for companies. This minimum level of capital is designed to provide a minimum assurance of the financial capacity and soundness of the insurer. The amount of the minimum capital should take into account the types of risk that are intended to be covered. The required minimum capital should by no means be used to compensate for normal foreseeable fluctuations in the development of certain risks. Nor should the setting-up costs of a new enterprise be covered by this minimum capital. Insurance regulatory authorities may impose a higher level of initial capital on the start-up of an insurer to support the business during its formative years.

*Principle 9: Definition of capital:* Capital adequacy and solvency regimes have to define the suitable form of capital. The capital adequacy and solvency regime has to define the form of capital that is deemed suitable to provide support when an insurer encounters an unexpected or extreme event.. In determining the form of suitable capital, insurance regulators should consider the extent to which the capital element: (i) represents a permanent and unrestricted investment of funds; (ii) is freely available to absorb losses; (iii) does not impose any unavoidable charge on the earnings of the insurer; and (iv) ranks below the claims of policyholders and other creditors in the event of the insurer being wound up. The regulatory framework has to set limits on the amount of capital instruments that may be counted toward capital adequacy and solvency requirements where they do not fully meet the criteria of paragraph.

*Principle 10: Risk Management:* Capital adequacy and solvency regimes have to be supplemented by risk management systems. The required solvency margin has to be considered the last resort after all other measures taken by the insurer to secure its financial stability have failed. The insurer also has to have in place risk management systems appropriate to the complexity, size and mix of the insurer's operations. These risk management systems have to be comprehensive and cover all risks to which the insurer is exposed. These risk management systems have to be supported by comprehensive monitoring and internal control systems. Risk management systems have to be supported by the regulatory framework, the insurance supervisory authority and, if applicable, the use of experts.

*Principle 11: Allowance for reinsurance:* Any allowance for reinsurance in a capital adequacy and solvency regime should consider the effectiveness of the risk transfer and make allowance for the likely security of the reinsurance counterparty. Reinsurance arrangements are a primary tool for risk transfer. Any credit for reinsurance should consider the effective transfer of insurance risk under the contract of reinsurance. Where allowance is made for reinsurance in determining the valuation of technical provisions, the reinsurance has to be assessed with regard to adequacy, reliability, objectivity and consistency. The likely security of the reinsurance counterparty has to be considered in determining whether, and to what extent, allowance should be given for reinsurance.

*Principle 12: Disclosure:* The capital adequacy and solvency regime should be supported by appropriate disclosure. Insurers should be required to publicly disclose appropriate qualitative and quantitative information about risk exposures and the components that make up their capital. The disclosure of appropriate risk exposures increases the ability of the financial markets, and to a lesser extent, consumers to make judgments about dealing with a particular insurer. In addition, it encourages insurers to adopt sound risk management policies and practices.

*Principle 13: Solvency assessment:* Insurance supervisory authorities have to undertake solvency assessment. Insurance supervisory authorities have to consider the following elements when undertaking solvency assessment: (i) the adequacy, reliability, consistency and objectiveness of technical provisions, assets and liability valuations and statutory reporting; (ii) compliance with the required solvency margin and control levels; (iii) the adequacy of the internal risk assessment processes of the insurer; and (iv) the risk management systems of the insurer. It is the responsibility of the Board of Directors and senior management of an insurer to

 

manage its risks. If efficient control systems are not in place to monitor risk exposures, an insurer will not be able to adapt quickly enough to changing market situations.

*Principle 14: Double gearing:* Capital adequacy and solvency regimes have to address double gearing and other issues that arise as a result of membership in a group. Capital adequacy and solvency regimes for insurers that are part of a group also should take a group-wide view. When considering insurance companies that are part of a group, it is important that steps are taken to avoid double gearing of capital. Consideration should be given to the capacity for intra-group funding. For an insurance group, the treatment of transactions between members of the same group should be considered as part of a capital adequacy and solvency regime. In addition, insurance supervisors should consider reputation and contagion risk that may arise as a result of problems in an associated company.

### 2. 6 Capital regulation as an incentive mechanism

Brealey (2001), suggests that financial institutions hold a buffer of free capital to avoid regulatory intervention, and that the amount of capital financial institutions desire to hold depends upon franchise value, and that portfolio decisions are relatively insensitive to regulatory requirements.

#### *2.6.1 Financial Institutions hold a buffer of free capital to avoid regulatory intervention*

Brealey (2001) asserts that financial institutions are forward looking. They also seek to avoid regulatory interventions, requiring them to recapitalize or adjust their asset portfolio to comply with capital regulations. Such intervention is costly because it distorts the financial institution's decisions and uses up scarce senior management time. Assuming some fixed cost on the institutions' shareholders whenever regulatory capital is found to have fallen to the minimum required level, it turns out that the financial institutions will typically hold a buffer of capital comfortably exceeding the regulatory minimum.

Other related justifications for holding a buffer of free capital can be provided. The financial institutions' management may wish to have a "war chest" of capital, allowing them freedom to make acquisitions or other major investments without having to concern themselves with balance sheet constraints. A substantial buffer may also help maintain their credit standing. For all these reasons financial institutions will wish to avoid infringing the regulatory requirements and almost always hold capital in excess, often substantially in excess of regulatory minima. Almost never do financial institutions hold exactly the minimum amount of regulatory capital.

Milne and Whalley (1999, 2001) model, in a continuous time setting, the fluctuations of financial institutions' capital between the minimum regulatory requirement and a desired maximum target level (the latter corresponding to the standard "economic capital" routinely calculated in the financial institutions' risk management). Financial Institutions use retained earnings to build up capital. Occasionally however weak performance drives down their level of capital towards the regulatory minimum.

#### *2.6.2 Strong Financial Institutions hold substantial buffers, weak Financial Institutions hold inadequate buffers*

The incentives to hold a buffer of free capital depend on the strength of the financial institution. A financial institution with a substantial franchise value will always recapitalize, rather than undergo insolvency and bear the subsequent loss of franchise value to shareholders. Moreover, even for fairly large discrepancies between the costs of equity capital and debt finance, such financial institutions choose to hold substantial buffers of free capital and only rarely are subject to regulatory intervention. Typically the capital of such a financial institution will be at or close to the desired maximum level.

A weak financial institution with little franchise value, on the other hand, will pay capital out to shareholders rather than risk losing that capital by keeping it inside the financial institution. Following a regulatory intervention it will also become insolvent rather than recapitalize. Such a financial institution holds an inadequate buffer of free capital and – assuming vigilance on the part of supervisors – only survives a relatively short period before it is closed down by regulators.

This divergence in the behavior of strong and weak financial institutions reflects the disciplining role of franchise value. 'Financial institutions with something to lose' seek to avoid insolvency by maintaining substantial buffers of free capital. When, as is usually the case, they hold substantial buffers of free capital close to desired levels and no regulatory intervention is in prospect, then regulatory capital requirements have only a minor impact on their behavior. It is only when an adverse earnings shock triggers a decline in the buffer of free capital, and the possibility of a breach of regulations become large enough to figure in the financial institution's decision making, that regulatory capital requirements impinge on financial institution behavior. They then take steps to reduce their exposure to risk.

### 2.7 The effect of regulatory capital requirements on financial institution portfolios.

Milne (2001a) explores the special case where returns are realizable in liquid markets, so that any financial institution struggling to meet regulatory capital requirements can do so simply by realizing its position. In this

 

case capital requirements have an impact on portfolio decisions only in the unusual situation that capital declines so far that financial institutions are directly constrained by capital requirements. Milne further asserts that this is an extremely rare occurrence. This suggests that the 1988 capital requirements, contrary to received wisdom, may have introduced little distortion in the allocation of financial institution assets between AA corporates (weighted at 100%) and OECD sovereigns (weighted at 0%). Financial institutions with excess capital could still comfortably lend to AA corporates in the knowledge that this exposure could be relatively easily adjusted in the event of subsequent capital shortage.

The analysis of Milne (2001a) also suggests that the 1988 requirements may also have had relatively little long run impact even on the portfolio shares of illiquid assets. In the long run, when financial institutions have had time to build up actual capital close to desired levels, portfolio allocation is determined by *the relatively small divergence between the long run costs of regulatory equity capital and debt finance*. Consider a well capitalized institution that can treat insolvency or even a breach of the minimum capital requirements as a remote and unlikely possibility. For such a financial institution under Basel 1988 rules an investment of $100mn in a totally illiquid asset with a 100% risk-weighting will need to be backed by $8mn of equity or other risk-absorbing capital, plus some additional capital buffer that is determined independently of regulatory capital requirements. Supposing rather generously that the real cost of regulatory capital is 200 basis points higher than the real cost of debt, then the regulatory requirement imposes a 16 basis point increase (8% of 200) on the overall cost of funding this asset. This calculation suggests that the portfolio impact of capital requirements on holdings of illiquid assets is relatively small compared, for example, to that of fluctuations in market rates of interest or assessment of credit risk.

## 2.8 Costs and Benefits of Regulatory Capital Regulation

The consultation documents issued by the Basel committee offer no discussion of the costs and benefits of capital adequacy requirements, *even though reform of financial institution capital regulation cannot be justified without some analysis of the benefits and costs.* This section will review both benefits and costs, demonstrating the weakness of the case for greater risk-sensitivity of minimum capital regulations.

### *2.8.1 Three benefits of minimum capital requirements*

There is no standard accepted framework for capturing the benefits of minimum capital requirements. This section distinguishes and discusses three principal benefits: (1) internalizing the social costs of financial institution failure; (2) improvements in risk management; and (3) reduction in regulatory forbearance. Discussion of capital regulation often ignores the second and third of these benefits.

*Internalizing the social costs of financial institution failure:* A basic rationale for financial institution capital regulation is that financial institution management and shareholders do not bear the full costs of insolvency. There are additional external social costs including the insolvency of other institutions, the loss of valuable credit relationships with borrowers that are worth more than simply the profits that are made from them, and potential breakdown of systems of payment and settlement. Higher capital ratios, at the time loan decisions and other exposures are determined, reduce the probability of financial institution's failure and hence the incidence of these external costs.

These externalities may be exacerbated by financial institution 'moral hazard' created by the financial institution safety net. Whenever large scale financial institution sector problems arise regulatory authorities often respond to the social costs of major financial institution failure by protecting depositors against loss of wealth and the financial institutions themselves against the threat of insolvency. Anticipating such protection, the rates of return to depositors and other debt holders do not fully reflect the risk of financial institution insolvency. This moral hazard reduces further the extent to which the costs of financial institution failure are internalized in financial institution's decision making.

This benefit of capital regulation depends upon an increase of regulatory capital requirements increasing total capital, and hence reducing the overall probability of financial institution insolvency. It does not require matching minimum regulatory capital requirements to financial institution portfolio risks. Provided minimum levels of capital are set sufficiently high then the frequency of financial institution failure can be made as low and the match between the private and social benefits of portfolio decisions as close as desired, without any risk-sensitivity of minimum capital requirements.

*Improvements in financial institution risk management and control:* A second benefit of minimum regulatory capital requirements is to encourage financial institutions to develop better systems of risk management and internal control. Financial institution insolvencies are commonly associated with failures of internal control. Individual financial institution employees exposing their financial institution to large amounts of risk or conducting major fraud have triggered well known individual financial institution failures, such as those of Barings Financial institution or Banco Ambrosiano. Inadequate controls over lending have also played a major role in exacerbating financial institution losses on lending to newly industrialized countries in the 1970s, to commercial property in the 1980s, and on a wide variety of loans in Japan, France, and elsewhere in the 1990s.

 

Crude as they were, the simple risk-weightings of the 1988 Basel accord forced financial institution management to address, very often for the first time, the question of whether the returns obtainable on their assets could justify the associated risks. Moreover financial institutions that failed to manage their capital and come close to infringing the 1988 minimum capital requirements have been penalized heavily by the markets through deterioration in the cost and availability of external finance.

The 1996 Basel accord on market risk, and the European Union's capital adequacy directive (CAD) was a further catalyst for improvements in financial institution risk management, supporting the introduction of portfolio wide systems for measuring market Value at Risk (VaR) in investment financial institution. The current consultation on the new Basel accord seeks to encourage financial institutions to progress from standardized procedures where credit risk assessment is based on class of asset, through various levels of internal rating based modeling that allow for the quality of individual assets. These developments will, in turn, increase the safety and soundness of the financial institution system. It is therefore appropriate that the minimum regulatory capital requirements for credit risk should be revised, so as to provide greater incentive for the proper measurement and management of credit risks.

But how, exactly, are capital requirements to be used to encourage better standards for measuring and managing credit risk? The internal models approach introduced by the 1996 Basel accord and CAD, exemplifies one approach, that of offering institutions the opportunity to use their own internal risk-management systems for the computation of regulatory capital requirements. This provides an incentive to develop internal models, provided that they result in an overall reduction of capital requirements. But other more direct incentives can be envisaged that do not involve the use of the financial institution's own systems for computing regulatory capital charges. For example all financial institutions could be subject to simple standardized calculations of capital charges for credit risk, with significant reductions in the overall requirement for those financial institutions that can demonstrate that they have in place a satisfactory system for measuring and managing their portfolio risks. It follows that encouraging improvements in risk management does not require increased risk-sensitivity of capital requirements.

*Reduced forbearance costs:* Minimum capital requirements provide an opportunity for regulatory intervention in a failing financial institution when regulatory capital requirements are breached but before a financial institution becomes insolvent. This opportunity, may, if supplemented by appropriate regulatory action, reduce the forbearance costs associated with financial institution failure (Estrella, Arturo, 1995). Regulatory authorities can require that a financial institution breaching minimum capital requirements recapitalize through new issue, merger with a stronger institution, or other balance sheet restructuring. Without minimum capital requirements, the regulators will typically have to wait until insolvency is threatened and a liquidity crisis is provoked by withdrawal of demandable deposits before taking action. This benefit of regulatory capital requirements is best achieved when capital ratios: (i) reflect up to date information about the financial soundness of the financial institution and in particular are computed according to accounting standards which force recognition of loan losses as soon as they can reasonably be foreseen; (ii) are simple computations where success or failure in meeting the requirements can be easily assessed; (iii) do not alter substantially over time, except when there are major shifts of assets onto or off the balance sheet.

Experience of the 1980s savings and loan crisis in the US and of other financial institution sector crises illustrates how rapidly the losses associated with financial institution failure can mount, when regulators do not intervene to close down failing institutions at the earliest opportunity. The 1991 FIDICIA act in the US attempts to deal with this forbearance problem by setting legislative defined sequence of interventions in a troubled institution, based on various measures of capital adequacy.

The possibility of shifting to internal ratings based computations of internal capital offered in the new Basel accord, creates potential problems for intervention in troubled institutions. Capital ratios will shift over time, as assets are re-rated. While supervisors will be closely watching the techniques used to determine ratings, financial institutions may be able to manipulate internal ratings so as to avoid regulatory intervention. Pillar 1 of the new Basel accord, as it is currently framed, erodes the ability of regulators to intervene in troubled institutions.

### *2.8.2 The direct and indirect costs of capital requirements*

Analysis of costs can be based on a more standard framework, distinguishing the direct costs of operating the regulations, the costs of compliance (the costs of meeting the regulations that would not be borne by financial institutions without the regulations), and any indirect costs that arise because of restrictions to competition or other external effects created by the change in regulations.

According to Brealey (2001), the direct costs of minimum capital regulation increase with the degree of complexity of the regulations. The 1988 accord involved relatively low direct costs, because risk-weighted capital could be calculated readily from basic balance sheet information including a breakdown of loan assets. The standardized approach of the proposed new Basel accord is not much more complex and involves little significant increase of direct costs. Direct costs are considerably higher, when ratings are computed according to

 

internal ratings or using credit risk models, because supervisors must devote resources to ensuring that the ratings or model used to compute the requirements are sound.

Compliance costs are those additional resources, devoted to computing capital ratios and making these calculations available to external audit or supervisory inspection that would not be required by the financial institutions were there no minimum capital regulations. Again costs of compliance will vary considerably, depending upon the complexity of the regulatory capital calculations. Using a standardized 'building block' approach these costs are generally fairly small.

An important exception is that even under a standardized approach computing the appropriate charges for off-balance sheet exposures may be costly, especially if the interpretation of the rules is not clearly established and the supervisors must be contacted to determine the application of minimum capital standards. The compliance costs may indeed be so high, in the case of derivatives or other off-balance sheet exposures, that financial institutions avoid certain contracts altogether. This is turn may inhibit the hedging of risks.

The use of external ratings for determining minimum capital requirements will introduce some additional costs, since a rating must be paid for. Compliance costs of internal ratings are relatively small, provided that the financial institution in any case have been operating the rating system for its own management purpose and is able to use the same system both for management control and for regulatory purposes. Perhaps the most important compliance costs associated with regulatory capital requirements is that financial institutions operate with lower levels of debt and higher levels of equity or other risk-absorbing capital than they would otherwise choose. This is a cost if equity capital is more expensive than debt. However standard corporate financial theory suggests that these costs are rather small. There is a tax advantage to debt, since interest payments are deductible. But this is not a social cost; it is rather simply a transfer from financial institution shareholders to the fiscal authorities. If there is concern over the magnitude of this transfer, then regulatory capital requirements could be made tax-deductible at some appropriate rate of interest (that on long-term government debt).

Debt is also less expensive than equity because it plays a role in disciplining financial institution management – reducing the so called 'agency costs of equity' i.e. the opportunity that high levels of equity capital give to management to pursue goals other than the maximization of shareholder value. Regulatory intervention may however be a substitute for such discipline and if this is the case the cost of regulatory capital is not substantially higher than that of debt.

This is the theory. In practice regulatory capital may often appear to management to be more expensive than debt. Suppose equity market valuations are widely believed to be based on return on equity or earnings per share, without any adjustment for the ratio of debt and equity on the balance sheet. In this case reducing equity and increasing debt, provided this shift does not threaten financial distress, will be expected to raise market valuations. Regulatory capital may therefore be perceived by management as a cost, since it requires them to have more equity on the balance sheet than they would otherwise choose.

To the extent that regulatory capital is more costly than debt, then raising minimum capital requirements will also tend to increase the overall cost of a financial institution operation, decrease the number of financial institutions in the industry, and raise financial institution margins. This indirect cost will be reduced if financial institution capital requirements are made more risk-sensitive. But this impact is likely to be swamped by other indirect costs that are increasing with the degree of risk-sensitivity of capital requirements. If capital requirements are raised during an economic downturn then this risks provoke financial distress in financial institutions, a reduction of lines of credit and of lending, and a regulatory 'credit crunch' exacerbating the downturn. Because of this pro-cyclicality risk-sensitive capital requirements might actually increase rather than reduce systemic financial institution instability. This macroeconomic externality is a major indirect costs of capital regulation and provides a further reason for not making regulatory capital requirements risk – sensitive.
Additionally, risk-sensitive capital requirements discourage investment in risky assets, at all stages of the business cycle. So if financial institution aversion to risk exceeds what is socially desirable i.e. if there is a social externality to financial institution lending, then there will be a further indirect cost of increased risk sensitivity.

### 2.9 Other arguments in favor of risk-sensitivity of capital requirements.

This sub-section considers three standard arguments favoring increased risk-sensitivity of capital requirements, discussing their relationship to the framework of benefits and costs already outlined.

***Argument 1:*** *Risk-sensitivity is needed to impose greater discipline on financial institutions that seek to exploit the financial 'safety net' through greater risk-taking.*

Standard franchise value arguments suggest that only a small proportion of financial institutions engage in moral hazard of this kind. The large majority of solvent financial institutions with some expectation of net positive future returns will seek to hold a buffer of capital to protect shareholders from the costs of insolvency or breach of capital requirements and will not seek to exploit the safety net. For such financial institutions the analysis of benefits put forward in this section is complete (Milne and Whalley, 1999).

 

In principal argument 1 is relevant to a small minority of weak undercapitalized financial institutions. In practice such weak financial institutions have every incentive to avoid regulatory requirements, for instance through false reporting or "window dressing" (temporarily acquiring or disposing of assets so as to comply with regulatory capital requirements). So even in these cases financial institution discipline via risk-sensitive capital requirements is relatively ineffective. The moral hazard argument suggests no great benefit to greater risk-sensitivity of capital regulation, not captured in the benefit-cost framework proposed in this section. Control of moral hazard has to be sought through close and effective supervision of weak financial institutions and rapid intervention in failing institutions (Jon, 2001).

***Argument 2:*** *The crude risk-weighting such as that of the 1988 Basel accord are ineffective and need to be replaced by more sophisticated requirements*

Specifically it is often argued that financial institutions can use asset backed securitization as a way of avoiding the impact of capital requirements. This argument is irrelevant because it does not address costs and benefits of regulation. The concern with asset backed securitization is dealt with quite simply in the new accord by allowing a reduction in capital requirements only when there assets are taken off balance sheet with no possibility of recourse to the originating financial institution.

It is true that financial institutions have tended to increase holdings of some assets whose true risks were relatively high compared to their 1988 regulatory risk-weightings. But this development was a response to the relative risk and return on different asset classes and would have taken place even in the absence of capital regulation. The use of more risk-sensitive regulatory capital requirements to discourage such portfolio shifts is justified only if it can be demonstrated that financial institution decisions over these asset holdings did not sufficiently internalize the social externalities of financial institution failure and that greater sensitivity of regulatory capital requirements would be a cost effective way of internalizing these social externalities. Our discussion has already challenged these assumptions.

***Argument 3:*** *financial institutions pursue fixed targets for return on equity. Hence, when they are subject to increased capital requirements, they will respond by shifting their portfolio into high risk/ high return assets so as to maintain earnings in relation to total equity capital*

Such an operational objective is inconsistent with the proper exercise of market discipline since it implies that financial institution behavior does not reflect the market price of risk and is destructive of shareholder value (Alfon and Andrews, 1999). It seems implausible that many financial institutions would behave in such a manner but this is ultimately an empirical question. Suppose it can be demonstrated that financial institutions respond to increased capital requirements by increasing portfolio risk (and this author is aware of no evidence at all that this is in fact the case). Then greater risk-sensitivity of capital, by imposing greater costs on such risk-acquisition, might usefully substitute for market discipline and be of net social benefit. The cost-benefit framework proposed in the present section assumes rational (forward looking) shareholder value enhancing behavior on the part of financial institutions and hence excludes this potential benefit of risk sensitive capital regulation.

### 2.10 Implications Regulators and Life Insurance Service Providers

A much greater challenge lies ahead, however, as regulatory and supervisory authorities and Life Insurance companies prepare themselves for its implementation. The adoption of the new minimum capital requirements entails an indispensable role for supervisory authorities and market discipline in encouraging Life insurance companies to continually improve their risk management practices. As a consequence, it would require extensive preparation on the part of financial regulatory and supervisory authorities, significant legal and regulatory changes, and intensified international cooperation among relevant authorities.

Specifically, the adoption of the new minimum capital requirements will result in the following challenges to regulatory authorities:

(i) As good supervision is a necessary requirement for the effective implementation of the new requirements, additional resources need to be devoted to attain a significant upgrading of expertise and skills among staff of supervisory authorities in many emerging economies. Much work is also required in amending legislation and further developing supervisory policies and guidelines in many jurisdictions.

(ii) While there is a need to ensure the implementation of the new requirements on a consistent, transparent and fair basis across all players in the industry, there may also be situations under which supervision should be able to override certain aspects of the accord in order to maintain its relevance.

Much work also needs to be done in ensuring effective and meaningful disclosure of financial information through improved accounting and auditing standards and in promoting comparability of financial information.

### 2.11 Challenges of developing Life Insurance Business

The development of life business in developing countries poses several challenges both to the regulators and the

 

providers. These include the following: (i) Due to the collapse of insurance companies, the public has lost trust and confidence in the institutions that offer insurance services; (ii) Poor and imprudential management of funds by insurers and trustees; (ii) In economies with uncontrolled rates of inflation, the life sector suffers as the savings are eaten away. Traditional life insurance products find it difficult to appeal in those situations; (iii) In addition, where the contract guarantees a fixed rate of return, any major change in the interest rates in the economy can seriously affect life business; (iv) Skills on life assurance business particularly on actuarial science are lacking within our markets. This hinders the development of these classes of business; (v) HIV and AIDS pose a serious challenge to life business in Africa. Insurers have reacted in diverse ways in the face of this challenge. This is certainly one problem that shall continue to haunt the industry into the future; and Globalization which has led to liberalization and opening up of our markets.

### 2.12 Winning strategies

The strategies outlined below apply to life insurance business arrangements:- Packaging and repacking of products; Availability of customized and flexible products ; Innovation and development of need driven products e.g. HIV/AIDS and dread diseases insurances; Adopting and encouraging professionalism in the industry; Introduction of good governance and transparency in the insurance companies; Increasing the public confidence regarding the credibility of insurance service providers; Increasing the public confidence regarding the credibility and ability of regulators; Increasing the public awareness in relation savings, available investment channels and the advantages of savings; Encouraging the development of professional skills; Correcting the negative perception by upholding high degree of discipline in the conduct of business amongst insurance practitioners; and Improved channels of distribution.

### 2.13 Conclusion

In conclusion therefore, the role of the regulator can be summarized as follows:

(i) To protect public interest by ensuring that the insurers and schemes are financially solvent and that policyholders are not exposed to loss by underwriters being not able to meet their obligations;

(ii) To promote an even, fair playing ground by ensuring members of the industry operate within acceptable principles, practices and standards;

(iii) To foster competence by requiring a high level of professional competence and conduct. Insurers must uphold professional ethics and encourage professionalism among their technical and field staff; and to play a developmental role by encouraging the industry to take an active part in the economic development of the country. Indeed regulators must participate actively in the education of and creation of awareness to the members of the public on the benefits of life assurance and pension arrangements. However, to achieve these objectives, there must be close cooperation and partnership between the regulator and the market players.

## 3.0 METHODS

### 3.1 Introduction

This chapter aims at defining the research design and methodology used in the study. It contains a description of the, research paradigms, research methodology, philosophical underpinnings, population, sample and sampling, study setting, data collection, data analysis, issues of reliability and validity and ethical and other practical considerations.

### 3.2 Research Paradigms

Two terms often used to describe the major research approaches to management or organizational researches are quantitative and qualitative. Other terms used include functionalist, objectivist or positivist for the former and interpretivist or subjectivist to describe the latter1. Within management and organizational studies the quantitative approach is seen as objective that is relating to phenomenon or conditions independent of individual thought and perceptible to all observers, and relying (Jean Lee, 1992), heavily on statistics and figures. On the other hand the qualitative approach is seen as subjective, relating to experience or knowledge as conditioned by personal mental characteristics or states, and preferring language and description. Van Maanen (1983; 9) refers to the qualitative mode as an attempt to reduce distance between context and action through "trade in linguistic symbols". This approach involves the examination of perceptions in order to gain an understanding of social and human activities.

The distinctions here are useful in recognizing the two approaches however, they do not portray the differing paradigms that underpin each approach and how these affect the research process. An investigation of this dichotomy in research approaches is undertaken here to reveal the relationship between research, the research process and the two principle research paradigms. This research exploration is conducted through the research process. The concept of paradigm or paradigms is discussed first. Discussion then proceeds to research

 

and the research process. Finally contrasts in the quantitative and qualitative approaches to the research process are detailed to see how paradigms influence the research process and the researcher.

A paradigm provides a conceptual framework for seeing and making sense of the social world. According to Burrell and Morgan (1979), to be located in a particular paradigm is to view the world in a particular way. Patton (1990) termed paradigm as a world view. However, was Kuhn (1970) who introduced the term as universally recognized scientific achievements that for a time provide model problems and solutions to a community of practitioners, and suspected that (Khun, 1970) something like a paradigm is a prerequisite to perception itself. In the postscript to his second edition, Khun (1970) provides a useful definition; it stands for the entire constellation of beliefs, values and techniques, and so on shared by the members of a community.

The significance of paradigms is that they shape how we perceive the world and are reinforced by those around us, the community of practitioners. Within the research process the beliefs a researcher holds will reflect in the way they research is designed, how data is both collected and analyzed and how research results are is presented. For the researcher it is important to recognize their paradigm, it allows them to identify their role in the research process, determine the course of any research project and distinguish other perspectives.

### 3.3 Research Methodology

According to Brown et *al* (2003), research design provides the glue that holds the research project together. A design is used to structure the research, to show how all of the major parts of the project, which include the samples or groups, measures, treatments or programs, and methods of assignment that work together to try to address the central research questions. A case study design was used to undertake the current research. Case studies involve collecting empirical data, generally from one or a small number of cases. According to Yin (2004), a case study design usually provides rich detail about those cases, of a predominantly qualitative nature. Case study research is an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used (Yin, 2004).

A case study generally aims to provide insight into a particular situation and often stresses the experiences and interpretations of those involved. It may generate new understandings, explanations or hypotheses. However, it does not usually claim representativeness. Therefore, researchers using case studies should be careful not to over-generalize (Ball, 2004). Case study research excels at bringing researchers to an understanding of a complex issue or object and can extend experience or add strength to what is already known through previous research (Hamel *et al*, 2003). According to Eisenhardt (2004), case studies emphasize detailed contextual analysis of a limited number of events or conditions and their relationships. Social scientists, in particular, have made wide use of this qualitative research method to examine contemporary real-life situations and provide the basis for the application of ideas and extension of methods (Miles and Huberman, 2003).

Many well-known case study researchers such as Stake (2005), Simons (2003) and Yin (2004) have suggested techniques for organizing and conducting the case study research successfully. This case study research draws upon their work and proposes the following six steps that should be used: (i) Determine and define the research questions; (ii) Select the cases and determine data gathering and analysis techniques; (iii) Prepare to collect the data ; (iv) Collect data in the field; (v) Evaluate and analyze the data; and (vi) Prepare the report.

The study took a holistic, in-depth approach and as such, the case study was the most appropriate methodology. According to Feagin *et al* (2004), case study is an ideal methodology when a holistic, in-depth investigation is needed. Case studies are multi-perspective analyses. The researcher considered not just the voice and perspective of the actors, but also of the relevant groups of actors and the interaction between them. This one aspect is a salient point in the characteristic that case studies possess. However, case studies tend to provide in-depth information about a limited number of subjects, and may produce new insights that generate additional studies. The major challenge expected in using the case study approach is that the researcher is required to have excellent knowledge of the topic when designing questions. The researcher approaches the subjects of study with an inquisitive mind and an openness that permits subjects to respond in an unlimited number of directions. This less structured approach may take the researcher down avenues he did not anticipate traveling and open doors to new kinds of understanding.

### 3.4 Philosophical Underpinnings

In management or organizational research the term paradigm encompasses three levels. The philosophical, basic beliefs about the world we live in. The methods and techniques ideally adopted when conducting research. At a philosophical level organizational theories contrast in five sets of assumptions (Burrell and Morgan, 1979) in a subjectivist /objectivist dimension; ontological, epistemological, axiological, methodological assumptions and assumptions about human nature. These assumptions trickle through to lower levels and influence the research process.

 

Ontology refers to the nature of social reality. To the realist the social world is tangible, hard made up of relatively immutable structures that exist independently of our individual descriptions. The social world is real and external to the individual. The nominalist however views reality as constructed in the names, labels and concepts that are used to structure that reality. Individuals create the social world; therefore there are multiple realities.

Epistemology refers to the nature of knowing and construction of knowledge and is divided into the positivist and anti-positivist stance. The former believing that true objectivity as an external observer is possible, the latter that the knower and known are interdependent and that social science is essentially subjective. The positivist studies the parts to understand the whole, they look for regularities and causal relationships to understand and predict the social world. To the anti-positivist the social world can only be understood by occupying the frame of reference of the participant in action. Axiological assumptions are closely related to the epistemological. These are assumptions regarding the role of values. Can values be suspended in order to understand, or do values mediate and shape what is understood?

Assumptions about human nature are deterministic or voluntarist. One views individuals as products of their environment; the other believes individuals create their own environment (Putman, 1983). Finally there are assumptions about the process of research, the methodology. Nomothetic methodology focuses on an examination of regularities and relationships to universal laws, while ideographic approaches centre on reasons why individuals create and interpret their world in a particular way (Putman, 1983). The social world can only be understood by obtaining first hand knowledge of the subject under investigation.

## 3.5 Population, Sample and Sampling

### *3.5.1 Population of the Study*

The study focused on the Insurance Industry in Kenya. The population of interest was the Life insurance companies operating in Kenya, whose number stood at seven (Appendix I).

### *3.5.2 Sample and Sampling*

The sampling frame is the list of ultimate sampling entities, which may be people, households, organizations, or other units of analysis. For purposes of the current study, the sampling frame will be the Life Insurance companies in Kenya. In order to address the objectives of the study, the Chief Executive Officer was the respondent in each of the organizations. Researchers usually cannot make direct observations of every individual in the population they are studying. Instead, they collect data from a subset of individuals, referred to as a sample and use those observations to make inferences about the entire population. Ideally, the sample corresponds to the larger population on the characteristic(s) of interest. In that case, the researcher's conclusions from the sample are probably applicable to the entire population. A census of all the seven organizations was undertaken and each of the organizations was represented by the Chief Executive Officer.

## 3.6 Study Setting

The study was undertaken in all the Life Insurance companies in Kenya. In order to gain access the participating organizations, a letter of introduction was sent to the various CEOs to seek permission. Consent was received and the researcher was able to proceed with data collection.

## 3.7 Data Collection

According to Polit and Hungher (1999:700), data collection is the gathering of pieces of information that are necessary for the research process. A structured approach to collecting data will be utilized. Both primary and secondary data were collected. A desk study was undertaken, in which a review of the relevant literature was carried out. The sources of information included various websites, books, magazines and Journals.

For purposes of the current study, a semi-structured questionnaire will be used. For purposes of the current study, primary data was collected from the respondents with the aid of a semi-structured questionnaire. The survey method was used to collect data. The semi-structured questionnaires consisted of two sections, Section I and section II. Section I consisted of items pertaining to profile of the respondents while section II consisted of items pertaining to the area of study. Since all the Life insurance companies have their head office in Nairobi, the researcher administered the questionnaires by hand delivery.

The questionnaires were pilot tested on three randomly selected respondents before they are administered. The purpose of the pilot testing was to ensure that the questionnaires were understood in their correct perspective, in order to meet the research objectives. The procedure that was used in collecting data was through distribution of the questionnaires that is, dropping and picking questionnaires from respondents at their most convenient time that was agreeable to both parties. Once completed, the researcher personally collected the questionnaires. This gave her the opportunity to clarify certain issues arising from the various responses.

 

### 3.8 Data Analysis and Presentation

Once all the data was collected, data cleaning was undertaken in order to enhance accuracy. The cleaning exercise ensured that only relevant data is retained for analysis. The data was then be coded to enhance manageability before analysis is undertaken. According to Marshall and Rossman (1999), data analysis is the process of bringing order, structure and interpretation to the mass of collected data. Statistical Package for Social Sciences (SPSS) will be used as an aid in the analysis. The researcher preferred SPSS because of its ability to cover a wide range of the most common statistical and graphical data analysis and is very systematic. The SPSS will be used to generate percentages, frequencies, mean scores and standard deviations.

For purposes of the current study, the data pertaining to the profile of respondents was analyzed by employing content analysis. Content analysis is a research tool used to determine the presence of certain words or concepts within texts or sets of texts. Researchers quantify and analyze the presence, meanings and relationships of such words and concepts, then make inferences about the messages within the texts, the writer(s), the audience, and even the culture and time of which these are a part. Texts can be defined broadly as books, book chapters, essays, interviews, discussions, newspaper headlines and articles, historical documents, speeches, conversations, advertising, theater, informal conversation, or really any occurrence of communicative language. To conduct a content analysis on any such text, the text is coded or broken down, into manageable categories on a variety of levels - word, word sense, phrase, sentence, or theme - and then examined using one of content analysis' basic methods: conceptual analysis or relational analysis.

The data pertaining to the objectives of the study was analyzed by employing descriptive statistics such as mean scores, frequencies and standard deviations. Descriptive statistics are used to describe the basic features of the data in a study. They provide simple summaries about the sample and the measures. Together with simple graphics analysis, they form the basis of virtually every quantitative analysis of data. Descriptive statistics help us to simply large amounts of data in a sensible way. Each descriptive statistic reduces lots of data into a simpler summary. Computation of frequencies in tables, charts and bar graphs were used in data presentation. In addition, the researcher used standard deviations and mean scores to present information pertaining to the study objectives. The information was presented and discussed as per the objectives and research questions of the study.

## 4.0 RESULTS AND ANALYSIS

### 4.1 Introduction

This chapter covers the data analysis and presentation of findings. It presents findings on study of the adequacy of minimum capital requirements for Life Insurance Companies in Kenya. All the six questionnaires that were sent out were returned completed (100% response rate). The high response rate could be attributed to the researcher's efforts in making follow up s on every questionnaire sent out. The information is presented as per the objectives and research questions of the study.

### 4.2 Minimum Capital Requirements for Life Insurance Companies

In order to meet the first objective of the study, "to determine the adequacy of the proposed minimum capital requirements given the higher risk environment that Insurance companies are operating within", the respondents were asked a series of questions.

#### *4.3.1 Increased minimum capitalization for insurance companies*

*Minimum capitalization for composite insurance companies:* Firstly, the respondents were asked to indicate their perception of the increased capitalization for composite insurance companies from Kshs. 150 Million by ticking as appropriate against three alternatives – adequate, inadequate and prohibitive. The responses show that all the respondents (100%) indicated that the minimum capital requirement was still inadequate. When asked to suggest an amount they believed would be the adequate minimum capital requirement, the responses given are summarized and presented in table 4.1 below.

**Table 4.1: Minimum capitalization for composite insurance companies**

| Suggested minimum capitalization for composite insurance companies (Kshs) | Responses | |
|---|---|---|
| | Frequency | Percentage |
| Between 750 Million and 1 Billion | 1 | 17% |
| At least 1 Billion | 3 | 50% |
| 1.5 Billion | 2 | 33% |
| **Total** | **6** | **100** |

The responses in table 4.1 show that though the minimum capital requirement for composite insurance firms in Kenya had been raised from 150 Million to 450 Million Kenya shillings, the amount fell far below expectations. Whereas 17% of the respondents suggested a minimum capital requirement of between 750 million and 1 billion, 50% suggested at least 1 billion and the other 34% suggested 1.5 billion.

*Increased minimum capitalization for general insurance companies:* Secondly, the respondents were asked to indicate their perception of the increased capitalization for general insurance companies from Kshs. 100

 

million to Kshs 300 million. The responses show that all the respondents (100%) indicated that the minimum capital requirement was still inadequate. When asked to suggest an amount they believed would be the adequate minimum capital requirement, the responses given are summarized and presented in table 4.2 below.

**Table 4.2: Minimum capitalization for general insurance companies**

| Suggested minimum capitalization for general insurance companies (Kshs) | Responses | |
|---|---|---|
| | Frequency | Percentage |
| At least 500 million | 2 | 33 |
| At least 750 million | 3 | 50 |
| At least 900 million | 1 | 17 |
| **Total** | **6** | **100** |

*Increased minimum capitalization for long term insurance companies:* Thirdly, the respondents were asked to indicate their perception of the increased capitalization for long term insurance companies from Kshs. 50 million to Kshs 150 million. The responses show that all the respondents (100%) indicated that the minimum capital requirement was still inadequate. When asked to suggest an amount they believed would be the adequate minimum capital requirement, the responses given are summarized and presented in table 4.3 below.

**Table 4.3: Minimum capitalization for long term insurance companies**

| Suggested minimum capitalization for long term insurance companies (Kshs) | Responses | |
|---|---|---|
| | Frequency | Percentage |
| At least 250 million | 3 | 50 |
| At least 500 million | 3 | 50 |
| **Total** | **6** | **100** |

### *4.3.2 Challenges posed by minimum capitalization and the strategic responses employed by the Life Insurance Companies in Kenya*

In order to meet the second objective of the study, "To identify the challenges posed by minimum capitalization and the strategic responses employed by the Life Insurance Companies in Kenya", the respondents were asked to indicate the challenges posed by minimum capitalization requirement on their respective organizations. The responses varied. Multiple answers were allowed and the responses are as presented in table 4.4 below.

**Table 4.4: Effects of changes in minimum capitalization on life insurance companies**

| Effects of changes in minimum capitalization on life insurance companies | Responses | |
|---|---|---|
| | Frequency | Percentage |
| No effect since the company's capital base is higher than the minimum capital requirement | 2 | 33 |
| Casual investors in the insurance sector who distort the value chain have been weeded out | 2 | 33 |
| Helps create a sizeable fund that leads to economies of scale | 1 | 17 |
| Increased organization to marketing and sales | 1 | 17 |
| **Total** | **6** | **100** |

In addition, the respondents were asked to indicate the extent to which listed responses have been used by Life Insurance Companies to cope with the minimum capital requirements by ticking as appropriate along a five point scale. The responses are summarised and presented in table 4.5 below. ***Where:*** Not at all = **(1);** Neutral = **(2);** Somehow = **(3);** Much = **(4);** Very much = **(5)**

**Table 4.5: Strategic responses to minimum capital requirements**

| Strategic responses to minimum capital requirements | Responses (Frequency) | | | | | Mean score | Standard deviation |
|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | | |
| Mergers and Acquisitions | 2 | 1 | 2 | 1 | - | 0.419 | 0.837 |
| Closure of some companies | 3 | 2 | 1 | - | - | 0.652 | 1.304 |
| Take over by other financial institutions | 2 | 1 | 1 | 1 | 1 | 0.224 | 0.447 |

## 5.0 RESULTS AND ANALYSIS

### 5.1 Introduction

The study aimed at determining the adequacy of Minimal Capital Requirements for Life Insurance Companies in Kenya. This chapter covers the discussion of the study findings. The chapter highlights the similarities and differences between the findings and those of studies reviewed.

### 5.2 The adequacy of the proposed minimum capital requirements

The findings show that the minimum capital requirements for composite firms in Kenya were increased from 150 Million to 450 Million Kenya shillings. The findings show that the increase in minimum capital requirements did not affect the operations of the Life Insurance companies in Kenya as the figure fell far below

 

expectations. All the respondents suggested a minimum of 750 Million Kenya Shillings, with 50% of the respondents suggesting a figure of at least 1 Billion and a further 34% suggesting a figure of at least 1.5 Billion Kenya shillings.

According to the International Association of Insurance Supervisors (IAIS) (2002), a minimum level of capital has to be specified. The regulatory framework has to set out a threshold minimum capital requirement for companies. This minimum level of capital is designed to provide a minimum assurance of the financial capacity and soundness of the insurer. The amount of the minimum capital should take into account the types of risk that are intended to be covered. The required minimum capital should by no means be used to compensate for normal foreseeable fluctuations in the development of certain risks. Nor should the setting-up costs of a new enterprise be covered by this minimum capital. Insurance regulatory authorities may impose a higher level of initial capital on the start-up of an insurer to support the business during its formative years. The findings show that though the minimum capital requirements have been set, they fall below industry expectations, which could be attributed to non-involvement of the stakeholders, who include the industry players.

The findings further show that the increase in minimum capital requirements for general insurance companies from 100 Million to 300 Million Kenya Shillings did not have any effect on the industry since companies' capital base exceeded the set amount. Whereas 33% of the respondents suggested a minimum capital requirement of 500 million, 50% suggested at least 750 million and the other 17% suggested 900 million. According to Stoughton and Zechner (1999), for insurers to be able to meet their obligations, they must: (i) hold sufficient funds to cover run-off risks and; (ii) manage, adequately their continuing underwriting risks; and (iii) invest prudently, premiums collected to generate adequate returns to cater for extra risks. The findings show that the Life insurance companies in Kenya are adequately prepared to meet their obligations, including meeting the minimum capital requirement.

The findings further show that though the minimum capital requirement for long term insurance firms in Kenya had been raised from 50 Million to 150 Million Kenya shillings, the amount fell far below expectations. Whereas 50% of the respondents suggested a minimum capital requirement of at least 250 million, the other 50% suggested at least 500 million. Whereas 33% of the respondents indicated that the changes in minimum capital requirements had not affected their organizations, 33% of them indicated that casual investors in the insurance sector who distort the value chain have been weeded out. As a result of increase in minimum capital requirements for insurance companies, the findings show that the following effects were felt:- It ensured that insurance companies created a sizeable fund that leads to economies of scale; increased organization to marketing and sales; and the casual investors in the insurance sector who distort the value chain have were weeded out.

According to International Association of Insurance Supervisors (IAIS) (2002), the goal of capital adequacy requirements in to provide banking, securities and insurance supervisors with principles and measurement techniques (a) to facilitate the assessment of capital adequacy on a group-wide basis for heterogeneous financial conglomerates; and (b) to identify situations such as double or multiple gearing which can result in an overstatement of group capital and which can have a material adverse effect on the regulated financial entities. It has been said that the main justification for state regulation should be to protect the public, but this aim must also be accompanied by socially desirable strategy. The goal of capital adequacy in Kenya may not be met if stakeholders in the industry are not involved in deciding the minimum capital requirement.

The findings show that the responses used by the insurance companies to cope with changes in minimum capital requirements included the following: - Mergers and Acquisitions; Closure of some companies; and Take over by other financial institutions. The finding is in line with the argument advanced by Brealey (2001), that financial institutions' management may wish to have a "war chest" of capital, allowing them freedom to make acquisitions or other major investments without having to concern themselves with balance sheet constraints. A substantial buffer may also help maintain their credit standing. For all these reasons financial institutions will wish to avoid infringing the regulatory requirements and almost always hold capital in excess, often substantially in excess of regulatory minima. Almost never do financial institutions hold exactly the minimum amount of regulatory capital.

## 6.0 CONCLUSIONS AND RECOMMENDATIONS

### 6.1 Introduction

This chapter presents the conclusions based on the study findings. The chapter also presents recommendations for policy and practice, besides presenting recommendations for further research.

### 6.2 Conclusions

The insurance industry continued to develop on account of a conducive regulatory environment, introduction of new products and a favorable macroeconomic environment. The overall growth of assets of insurance companies signifies the growing importance of insurance business in the country. Moreover, a robust increase in the health

 

insurance business also highlights the increased awareness of the necessity and benefits of insurance. It is expected that with the continued implementation of economic reforms, the insurance industry will continue to grow and play a meaningful role in the overall development of the economy. However, consistently high claims and expenses of non-life insurance companies, and lack of proactive management in preventing surrender of policies by life insurance companies, may be potential impediments in the growth momentum of the insurance industry.

## 6.3 Recommendations

### *6.3.1 Recommendations for Policy and Practice*

Based on findings of the study, it is expected that the stakeholders, who include the regulators and investors in the insurance industry will gain a better understanding of the adequacy of minimum capital requirements and challenges posed by changes in the capitalization requirements. The latest developments in the areas of insurance, risk management, financing techniques and financial reporting have paved the way for reforms in the Kenyan solvency system. The integration of international financial systems has increased the need for convergence of the regulatory environment. Since the consolidation in the range of products offered by insurance companies and banks is growing, therefore there is a need to harmonize banking and insurance rules.

The provisions regarding insurers' solvency capital should become stringent. There should be both a minimum solvency capital and a target solvency capital requirement. The minimum solvency capital should rely on the amount of business that the insurer underwrites.

The target solvency capital should be based on the economic risk capital that a company should have in case of unforeseen circumstances. There will be standard model available for the calculation of the target solvency capital in the insurance industry.

There should be strict supervision by the regulators. The supervisors should be responsible for monitoring the amount of the existing capital. The level of international cooperation between the supervisory authorities in each member state, particularly between the supervisory authorities for banks and insurers, needs to be enhanced. The audit process should also be coordinated and standardized according to requirement.

There should be enhanced disclosure such that the public will have greater access to information about the financial stability of insurers. The industry regulators should put in efforts to ensure that competition resulting from solvency will force insurers to comply with quality and security standards.

### *6.3.2 Recommended areas of Further Research*

The findings of this study, it is hoped, will contribute to the existing body of knowledge and form basis for future researchers. The following areas of further researcher are thus suggested: - (1) Whereas the current study focused on responses from the management of the insurance companies, future studies should focus on the regulators and the customers of the insurance companies; and (2) The current study should be replicated to other sectors of the economy in Kenya.

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**APPENDIX I: LIST OF INSURANCE COMPANIES IN KENYA**

| | COMPANY | CONTACT | PRINCIPAL OFFICER |
|---|---|---|---|
| 1. | CFC Life Assurance | P.O. Box 30390-00100<br>Tel. 020-2866000<br>CFC House, Mara Road<br>Nairobi. | Abel Muda |
| 2. | Apollo Life Insurance Ltd. | P.O. Box 30065-00100<br>Tel 020-343585<br>Hughes Building<br>Kenyatta Avenue<br>Nairobi. | Ashok Shah |
| 3. | Metropolitan Life Assurance Company (K) Limited | P.O Box 46780-00100<br>Tel: 243126<br>International Life House,<br>Mama Ngina Steer,<br>Nairobi. | Linus Makhulo |
| 4. | Old Mutual Life Assurance Company Limited | P.O. Box 30059,<br>Tel. 221187/8, 335407,<br>Old Mutual Building<br>Mara/Hospital Road,<br>Nairobi. | Linet Chakava |
| 5. | Pan Africa Life Assurance Company Limited | P.O. Box 44041-00100,<br>Tel. 2225050<br>Pan Africa House,<br>Kenyatta Avenue,<br>Nairobi | Tom Gitogo |
| 6. | Pioneer Life Assurance Co. Limited | P.O. Box 30129-00100,<br>Pioneer House,<br>Tel. 2220814/5,<br>Nairobi | Moses Kimani |
| 7. | Trinity Life Assurance Co. Ltd. | P.O Box 12043-00400<br>Tel: 244282<br>Re-insurance Plaza<br>Nairobi | James Macharia |

Source: Association of Kenya Insurers (AKI), 2009

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