

# The new solvency framework for European insurance companies

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## Introduction

As is the case for banks, there are two main rationales for the existence of specific supervisory arrangements for insurance companies. The first rationale is linked to the protection of small investors. The reasoning is that deposit holders in the case of banks and policyholders in the case of insurance companies are mostly widely dispersed non-experts, as a result of which they lack the expertise to assess the financial soundness of the institution and to fulfil the disciplining role that creditors normally assume in times of financial distress. Moreover, bank depositors and, to a lesser extent, insurance policyholders, are often covered by guarantee schemes, which reduce any incentive they might have to monitor financial institutions' managers' risk taking behaviour. There is a need, therefore, for a "debt-holder representative" who will ensure "effective debt governance" of the institution. This delegated monitoring role is often taken on by public authorities.

The second rationale for the supervision of financial intermediaries derives from the negative externalities associated with a crisis. Banks play a dominant role in payment systems; therefore, bank failures can jeopardise the performance of this critical function. In addition, deposits may be withdrawn on demand and, as such, a bank may be prone to a loss of confidence and runs, which may cause insolvency and create domino effects on other banks, e.g. through the interbank market. Similar, albeit less important, contagion effects could take place in the insurance sector through the reinsurance mechanism, endangering the performance of key economic functions by the insurance sector. Indirectly, insurance companies could also pose threats to financial stability via their links

with the banking sector. These links are most explicit in conglomerates involving bancassurance, but insurance companies are also major participants in financial markets; hence problems in this sector might spill over to other participants in those markets, including banks.

Supervisory authorities rely on specific tools and methods to perform their tasks. Solvency requirements represent one of their most important instruments. In both banking and insurance, the current solvency system takes insufficient account of the risk profile of the individual institutions in setting the capital requirements. To resolve this problem, more risk-sensitive supervisory frameworks are currently being developed. The Basel II framework for banks will be introduced in 2007, and the Solvency II framework for insurance companies is expected to be finalised by the end of the decade.

These new regulatory frameworks not only aim to refine the calculation of capital requirements, but are also intended to encourage the institutions concerned to improve the quality of their risk management procedures. To that end, they introduce a structure comprising three mutually reinforcing pillars. The first pillar corresponds to the imposition of capital and other quantitative requirements geared more closely to the institution's actual risks; a second pillar introduces qualitative requirements and foresees the possibility for prudential authorities to take further account of the specific risk profile of each institution; and a third pillar is intended to encourage market discipline by imposing greater transparency in the public disclosure of information.

(1) Maciej Sterzynski contributed to this article during an internship at the National Bank of Belgium.

Although Basel II and Solvency II have roughly the same philosophy, each needs to take into account the sectoral particularities. In banking, short-term liabilities, such as deposits, are traditionally converted into long-term, illiquid assets. As a result, an important risk for banks is the sudden withdrawal of a large part of their deposit base, potentially triggering liquidity problems. This calls for a supervisory regime that is able to detect such risks beforehand and resolve them quickly. The opposite holds in insurance, where companies have very long-term liabilities, especially in life insurance, and invest in rather liquid assets. This allows supervisors to take a more gradual approach to resolving financial distress.

In addition, the relative importance of the different risks varies between the two types of business. Credit activity, on the assets side, is generally considered to be the primary source of risk in banking. In insurance, the focus is traditionally on underwriting risk, i.e. the risk of underpricing insurance contracts or of underestimating the level of the liabilities towards policyholders. These liabilities, which correspond to insurance companies' technical provisions, are inherently uncertain and have to be estimated. As a result, provisions are much more important than in the case of banks, where both the assets and the liabilities can arguably be more accurately valued.

These specificities of insurance activities are taken into account by insurance regulators and supervisors in the design of the new solvency framework, which is presented in this article. Section 1 briefly describes the current regime and its main weaknesses. Section 2 provides an overview of the main characteristics of the new framework and its development process. Section 3 focuses on the first pillar and analyses the changes and improvements that will be introduced by Solvency II. The last section concludes.

While reading this article, one should bear in mind that the Solvency II framework is still under development. In the coming months, further technical issues will be submitted for advice to the Committee of European Insurance and Occupational Pension Supervisors (CEIOPS, the counterpart of the Committee of European Banking Supervisors in the banking field), and for consultation to the sector.

(1) The single insurance market, which is part of the European internal market, relies on three generations of insurance directives. In general they cover the rules applying to the conduct of insurance activities, including the financial structure of insurance undertakings. See also Sterzynski (2003).

(2) Originally, Solvency I had been meant to consist of two directives, regulating the non-life and life business respectively. Since the three generations of life directives have been unified in a Life Recast Directive (directive 2002/83/EC), the Solvency I life directive was integrated in this new text. Therefore, there currently exists only a Solvency I non-life directive (directive 2002/13/EC).

(3) The early warning mechanism is a supervisory tool allowing an authority to act before the solvency margin is breached. It means the supervisor might require an insurance undertaking to provide a recovery plan for its solvency position once the first symptoms of a deterioration of the overall capital position of a company appear.

A number of elements will most likely be subject to change, while others have not yet been touched upon. The final picture will gradually emerge as the negotiations continue and the results of the quantitative impact studies provide additional information.

## 1. Current solvency regulation for insurance companies

The present solvency framework for EU insurers is determined by the solvency margin system. This regime arises from the First Generation of Insurance Directives (1970s) and was confirmed by the Third Generation of directives in 1992<sup>(1)</sup>. At the beginning of 2000, the European Commission initiated another review of insurance companies' solvency requirements. This resulted in 2002 in the Solvency I framework<sup>(2)</sup>, which had to be transposed into national law by 20 September 2003, but for which some member states have transition periods of up to seven years. Solvency I improves the quality of the policyholders' protection. It introduces an adjusted supervisory tool – the modified early warning mechanism<sup>(3)</sup> – and makes solvency requirements for European insurers more robust, pending the introduction of Solvency II.

In the current framework, the capital requirements comprise both the Minimum Guarantee Fund and the required solvency margin. These serve as a buffer, on top of the technical provisions, to protect policyholders and other beneficiaries against potential unexpected claims (e.g. in case of an unforeseen concentration of claims) and other unexpected losses (e.g. investment losses).

The minimum guarantee fund fulfils two important functions. Firstly, it imposes a minimum level of regulatory capital for launching insurance activities. This minimum equals three millions of euros for both life and non-life insurance, although in the latter case this amount may be reduced to two millions of euros, depending on the risks covered. Secondly, it expresses a level of capital below which an insurance company presents an unacceptable risk to policyholders. Therefore, the minimum guarantee fund may not be less than one third of the required solvency margin (see below). Once the capital of an undertaking drops below this level, the supervisor will be obliged to resort to the most severe measures, including withdrawing the company's licence.

The required solvency margin itself is calculated as a fixed percentage of certain balance sheet and income statement items. In the case of non-life insurance, the required solvency margin is equal to the higher of two amounts, calculated on the basis of either the claims or

the underwritten volume (the premiums). In the former case, the required solvency margin amounts to 26 p.c. of the claims up to 35 millions of euros and 23 p.c. above this level<sup>(1)</sup>. The required solvency margin calculated on the basis of the underwritten volume amounts to 18 p.c. of gross collected premiums below 50 millions of euros, and to 16 p.c. of the premiums above this threshold. In the case of life insurance, the required solvency margin is generally calculated as 4 p.c. of the mathematical provisions.

However, the current framework presents a number of weaknesses. First, the current capital requirement is calculated on the basis of the volume of liabilities, which does not fully reflect the risks inherent in the contracts. Such a method of calculation may even create perverse incentives, as – in life insurance – a company can lower its capital requirements by reducing its technical provisions, while sounder companies, having ample provisions, have to hold a higher amount of capital.

Second, other quantifiable risks, such as interest rate risk and other market risks, are not incorporated in the calculation of the capital requirement.

Third, the availability of sufficient capital is but one of the factors contributing to insurance companies' solvency position. Another important element is the adequacy of the technical provisions, which represent their liabilities towards the policyholders. These have to be estimated, as both the amount and the timing of the future claims are uncertain. The current solvency framework does not include adequately harmonised rules regarding the calculation of the technical provisions.

The technical provisions, in turn, have to be covered by sufficient investments, which constitute the bulk of insurance companies' assets. The adequacy and prudent management of these investments constitutes another cornerstone of the soundness of insurance companies. Again, the current framework only includes very general rules on investment policy and does not provide comprehensive principles requiring insurance companies to manage their investments prudently.

Fourth, the current solvency framework does not include a qualitative assessment, for instance of corporate governance, internal control and risk management practices, which allows to further align capital requirements with the specific profile of each company. It neither comprises market disclosure measures to promote market discipline.

(1) The required margin is increased by 50 p.c. for the insurance classes 11, 12 and 13 listed in point A of the Annex to Directive 2002/13/EC. It concerns in particular certain risky classes of business, such as general liability insurance in aviation.

## 2. The new solvency framework for insurance companies in Europe

### 2.1 A short description of Solvency II

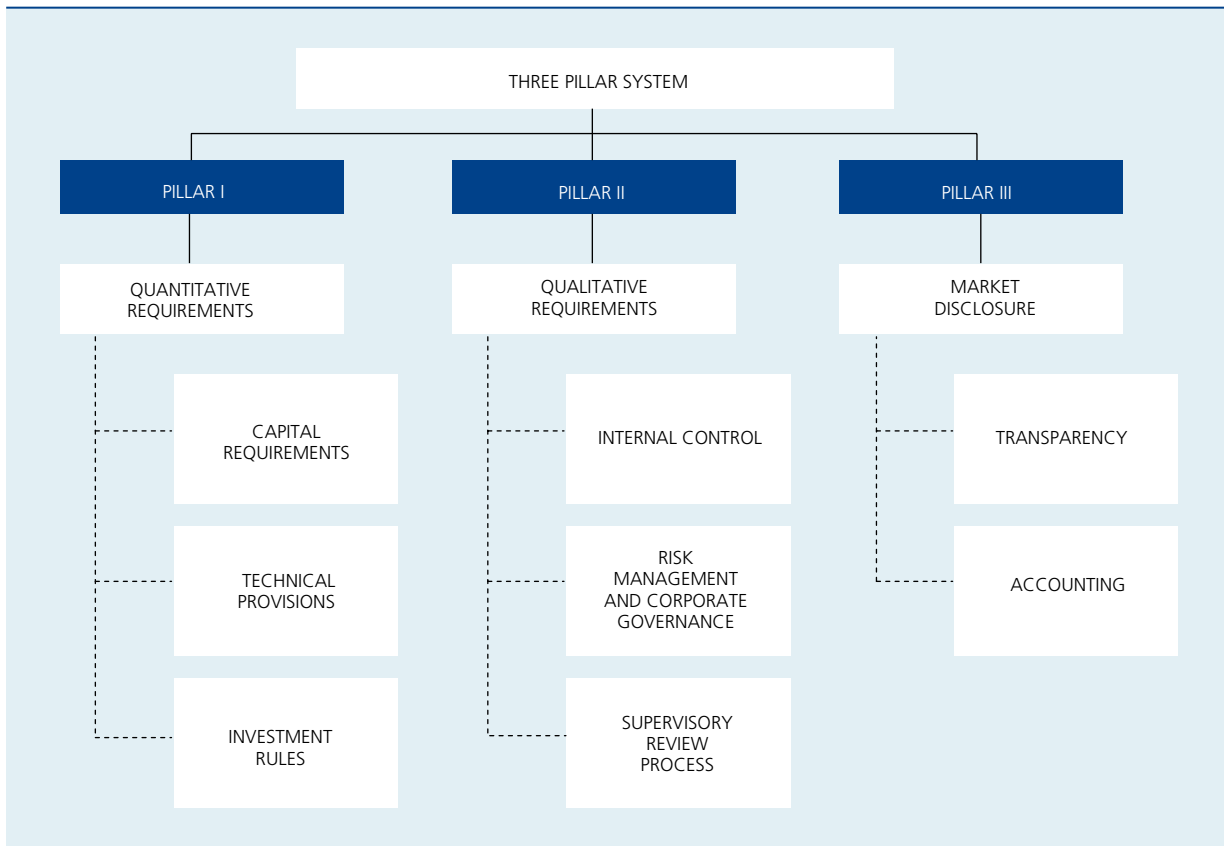
In order to resolve as far as possible the above-mentioned weaknesses, Solvency II aims at introducing risk-sensitive supervision for insurance companies, relying on a risk-based framework for their solvency assessment. The new framework does not only allow better alignment of the capital requirements with the risk profile of the company, but will also induce insurance undertakings to improve their internal risk management systems. This should lead to better protection for policyholders and greater financial stability, and improve the level playing field within and across sectors. It will also give insurance companies more flexibility in setting their risk profile, permitting a more efficient allocation of capital.

The major goal of Solvency II is thus similar to the one pursued by the new Basel II framework for banks, i.e. to put in place a risk-based capital framework, adapted to the current financial environment. The analogy between the two frameworks should not only limit the potential for regulatory arbitrage, but should also reduce the complexity for conglomerates which have to comply with both regulations. In this vein, both Basel II and Solvency II adopt a three pillar structure and allow the use of internal models (Chart 1).

Pillar I covers the so-called quantitative requirements, i.e. those calculated using available actuarial and mathematical methods. It includes a new approach for the calculation of the capital requirements, which will be split into a Minimum Capital Requirement (MCR) and a Solvency Capital Requirement (SCR). It also harmonises the calculation of the technical provisions and includes revised rules on insurance companies' investments.

Pillar II includes the non-quantitative (or qualitative) requirements, which cover the aspects of solvency that cannot (fully) be quantified or deserve additional attention. The supervisory review process deals with insurance companies' governance, risk management structures, internal control and ALM techniques. Supervisors will also assess the methodology applied by insurance companies for the calculation of their capital requirements. The supervisory authority evaluates these elements in the light of the nature of the business of the insurance company and its available financial resources, and will impose additional capital requirements if deemed necessary. Pillar II will also introduce a peer review procedure for supervisory authorities, in order to promote the harmonization of supervisory practices within the EU.

**CHART 1** THREE PILLAR STRUCTURE OF THE SOLVENCY II FRAMEWORK



Pillar III aims at enhancing market discipline by setting requirements regarding the transmission of information towards the public, and introducing the use of new international accounting standards.

## 2.2 Solvency II development process

Unlike Basel II, Solvency II applies only to the EU Member States and the other three members of the European Economic Area, i.e. Iceland, Lichtenstein and Norway.

The Solvency II project was divided into two phases. In the first phase, which started in May 2001 and was completed by the end of 2004, the structure of the EU insurance market was investigated and the main characteristics of the project were set out, along with the range of possible principles on which the future supervisory system could be based. In the second phase, the Framework Directive and its implementation measures are being developed.

Solvency II is the first insurance directive to be developed under the Lamfalussy procedure. This procedure, which was originally designed for the securities sector and aims at simplifying and speeding up the complex and lengthy

regular EU legislative process by means of a four-level approach, was extended to the entire EU financial sector in December 2002.

Under the Lamfalussy procedure, the legislative process has been split into the development of a Framework Directive by the European Commission (called level 1 measures), and the elaboration of implementation measures supporting the Framework Directive (called level 2 measures) by the European Insurance and Occupational Pensions Committee (EIOPC, the counterpart of the European Banking Committee in the banking field) and CEIOPS. Given the complexity of the Solvency II project, CEIOPS will be involved in the entire development of the new prudential framework, by contributing to the preparation of the Framework Directive, by assisting the European Commission in the preparation of potential implementing measures, and later on, by issuing any consequent supervisory measures (level 3 measures).

As in the case of the banking Capital Requirements Directive, the publication of the Solvency II Framework Directive will be preceded by detailed quantitative impact studies (QIS). The goal of these QIS is to estimate possible economic consequences of the new regulation on

the insurance industry and to assist in the design and the calibration of the new solvency requirements. At present, the results of the first QIS, on the technical provisions, are already available (see Section 3.1 for the Belgian results), while the second QIS, which studies the impact of possible changes in the valuation of both assets and liabilities as well as a number of options for setting the capital requirements, is underway. To supplement the inputs from the QIS, the European Commission will also perform an Impact Assessment. This is a wider analysis on the consequences of Solvency II for the EU financial markets.

The European Commission is planning to issue the Framework Directive in the second half of 2007 and the framework is expected to enter into force by 2010 or 2011.

### 3. Quantitative requirements under the first pillar of Solvency II

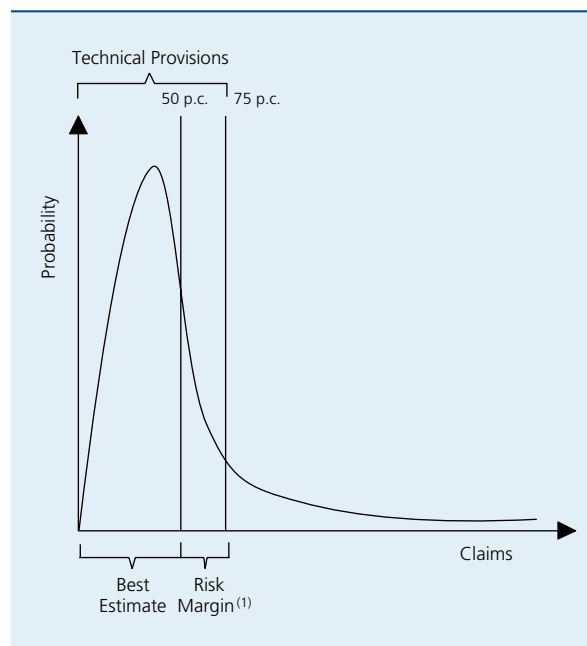
The first pillar of Solvency II replaces the current solvency margin system by risk-based quantitative requirements. It modifies the approach for the valuation and estimation of the technical provisions, introduces a MCR and a SCR and changes the rules regarding insurance companies' investment policy.

#### 3.1 Technical provisions

As already mentioned, insurance companies agree to cover potential future claims related to specified insured events in exchange for a fixed premium paid in advance. The ensuing liabilities of insurance undertakings towards the policyholders are thus uncertain and are reflected in the technical provisions. Solvency II will introduce fair value techniques to bring the valuation of these provisions more in line with their fair value. These techniques are consistent with the market oriented approach of Solvency II and the future version of the international accounting standard for insurance contracts (IFRS 4 phase II).

The fair value method developed by the International Accounting Standards Board (IASB) aims at a realistic valuation of assets and liabilities as the amount for which the assets could be exchanged, or the liabilities settled, between knowledgeable, willing parties in an arm's length transaction. The application of this fair value technique for valuing life insurance liabilities will, however, create difficulties as there is in general no market for exchanging such policies once they are issued by insurers. In these cases, their fair value will have to be estimated.

CHART 2 TECHNICAL PROVISIONS: BEST ESTIMATE AND RISK MARGIN



(1) The first quantitative impact study tested confidence levels for the technical provisions of 60 p.c., 75 p.c. and 90 p.c.

The main component of this fair value is the best estimate of the present value of the future cash flows from the contracts concluded. However, in order to obtain the fair value, the best estimate will have to be increased by a certain margin, as a knowledgeable independent buyer is expected to require a premium for risk and uncertainty above the best estimate in order to be willing to accept the relevant liabilities. This premium is called the market value margin. One of the key discussions in Solvency II is on an appropriate approach for introducing such a margin, which, at the same time, provides sufficient security for policyholders and is market-consistent. A number of solutions are currently being investigated.

One solution is to introduce a margin for risk and uncertainty which makes use of a predefined confidence level to indicate the probability with which an insurance company has to be able to fulfil its obligation towards policyholders in the period up to the expiration of the last contract (Chart 2). The required confidence level will ultimately have to be chosen on the basis of the results of the QIS, in which levels of 60 p.c., 75 p.c. and 90 p.c. have already been tested.

However, according to some market participants and supervisors, this approach is not market-consistent and might unnecessarily incorporate an additional layer of prudence in the valuation of the liabilities (as all risks should

be identified and incorporated in the capital requirement). They also argue that, if it is decided that prudence should be introduced in the valuation of insurance liabilities, to take into account uncertainty in the determination of the market value margin, this would be better dealt with by the capital requirements (see below).

A method that accommodates these concerns is the cost of capital approach, proposed in the Swiss Solvency Test. According to this approach, the additional risk margin would equal the hypothetical cost of capital necessary to run off all the insurance liabilities, following financial distress in a company. The argument is that a knowledgeable, willing party will only agree to take over an insurance portfolio if the cost of capital associated with this portfolio is included in its value.

A rough idea of the impact of the introduction of these new valuation methods for insurance companies' liabilities is provided by the results of the first quantitative impact study. This study, of which the detailed results are published by the Commission Bancaire, Financière et des Assurances (CBFA) for Belgium and by CEIOPS for the entire EU, has tested the level of prudence in technical provisions under several hypotheses. The tests were based on individual firm data as at the end of 2004, representing, in the case of Belgium, about 60 p.c. of the total market in life insurance and 50 p.c. in non-life insurance. However, the methods applied by individual companies were not necessarily fully comparable and not all companies provided all information, as a result of which the aggregates provided below are not always internally consistent. They should be interpreted with caution and can only serve to provide a rough estimate<sup>(1)</sup>.

The exercise revealed that in most cases the best estimate of the technical provisions is lower than the current level (Table 1). Adding a risk margin does not seem to have a large impact on the level of the provisions. For life insurance, the best estimate of the liabilities, including the provisions for future bonuses, amounts to 90.2 p.c. of the current level of the provisions, which do not include these bonuses. This lower level is mainly attributable to the fact that future cash flows of long term liabilities would be discounted at higher rates compared to the technical interest rates currently used in the calculation of the technical provisions. Adding a risk margin to obtain a confidence level of 90 p.c. would only increase the provisions to 93.5 p.c. of their current level.

**TABLE 1** IMPACT OF THE INTRODUCTION OF MARKET BASED VALUATION ON THE LEVEL OF BELGIAN INSURANCE COMPANIES' TECHNICAL PROVISIONS<sup>(1)</sup>

(Percentages of the effective level of the technical provisions at the end of 2004)

	Best estimate	75 p.c. confidence level	90 p.c. confidence level
Life insurance <sup>(2)</sup> . . . . .	90.2	91.6	93.5
Non-life insurance <sup>(3)</sup> . . . . .			
Undiscounted . . . . .	82.0	84.7	n.
Discounted . . . . .	74.2	76.6	79.1

Source: CBFA.

(1) Data gross of reinsurance.

(2) Including provisions for future bonuses.

(3) Both premiums and claims provisions.

In non-life insurance, the best estimates of the liabilities are provided both on an undiscounted basis, as is currently the case in Belgium, and on a discounted basis, which is more market-consistent. The undiscounted best estimate amounts to 82.0 p.c. of the current level of the provisions, while the discounted value would equal 74.2 p.c. of the current level. The impact of discounting is thus significant. The addition of a margin in order to obtain a 90 p.c. confidence level would increase the discounted provisions to 79.1 p.c. of their current level.

Compared to the European average, the current level of provisions of Belgian insurance companies seems to be somewhat more conservative, in both life and non-life insurance. However, there are large differences between countries.

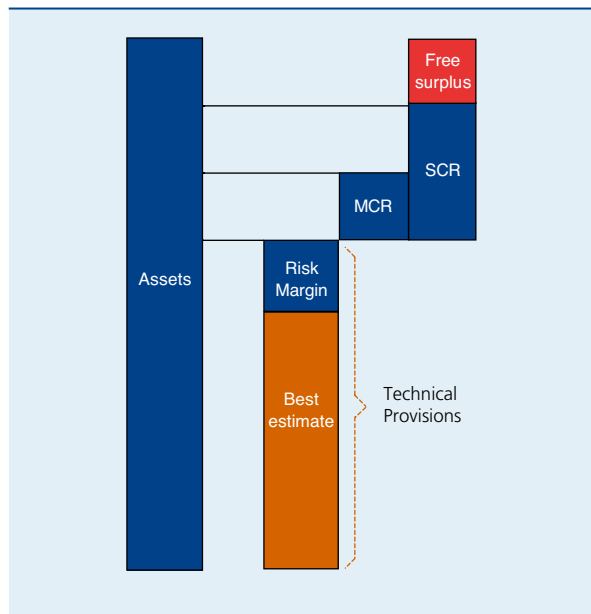
### 3.2 Minimum Capital Requirement and Solvency Capital Requirement

On top of the technical provisions, Solvency II introduces two capital layers, called the Minimum Capital Requirement (MCR) and the Solvency Capital Requirement (SCR) (Chart 3).

Note that the capital requirements differ from the provisions in terms of their scope and time horizon. While provisions serve to cover the expected liabilities towards policyholders, increased by a margin for risk and uncertainty, the capital requirements provide a buffer against unexpected losses (tail risks). These losses do not only include unexpected insurance losses, but also the losses resulting from the materialisation of other types of risks.

(1) For detailed information on the methods of calculation and the caveats of the exercise we refer to Commission Bancaire, Financière et des Assurances (2006).

**CHART 3** INSURANCE COMPANIES' CAPITAL BUFFERS AND TECHNICAL PROVISIONS



In addition, provisions and capital requirements differ in their time dimension: provisions cover the claims up to the expiration of all policies, while capital provides a buffer against losses within a period of one year.

The distinction between two capital levels is related to the characteristics of the insurance business, where solvency problems can be resolved over a longer period of time than in the banking sector. Given the long duration of their contracts, insurance companies face lower liquidity risk and have a longer time span in which to address solvency problems. This allows more gradual supervisory intervention. Such an approach is not possible in banking, where high liquidity risk and the risk of loss of confidence and bank runs in the event of solvency problems require immediate, decisive supervisory action.

The following discussion of the capital requirements is based on the most recent information available. It includes the options envisaged in the second quantitative impact study, which deals with the MCR and the SCR. However, it is clear that the results of this exercise and further discussions may still alter the design of the capital requirements.

### 3.2.1 Minimum Capital Requirement

The MCR is intended to provide a safety net. This means that, on an ongoing basis, the MCR does not necessarily reflect an adequate level of capital, but a level below which the capital of a company cannot fall without

causing an unacceptable risk to policyholders. Therefore, if an undertaking's capital drops below the MCR, the supervisory authority is obliged to react immediately using the most severe supervisory tools, including the withdrawal of the company's licence. The supervisory action in this case is immediate and rule-based. The MCR is the ultimate prudential level and will in general be lower than the SCR. It is, however, subject to an absolute minimum, expressed in euros, similar to the minimum guarantee fund in the present framework.

The MCR is an essential part of prudential supervision under the future Solvency II framework. It provides an EU-wide harmonised, standardised formula applying to all insurance undertakings. The MCR should not be calculated using internal models, since the capital requirements based on these models might differ considerably from one company to another according to the assumptions used, which is found undesirable for the bottom capital level. Moreover, the calculation of the MCR should be robust and transparent in order to minimise compliance costs.

The MCR could, according to CEIOPS' response to the Commission's Call for Advice number 9, be calculated on the basis of the SCR standard formula. Such a method would be fully integrated into the new risk-based framework and would be consistent with the overall prudential objectives of the new regime. However, the feasibility of this approach depends entirely on the robustness of the SCR standard formula. Therefore, if this approach is adopted, a transitional period between the introduction of the SCR and the adaptation of the MCR is suggested.

In this transitional phase, it is envisaged to use a formula based on the Solvency I requirements to calculate the MCR. The MCR could, for instance, equal half of the current solvency requirement. Such a method will, however, need to reflect the new methods of valuing assets and liabilities. Although this approach is simple and is expected to reduce compliance and transition costs for insurance companies, it is not fully consistent with the philosophy of Solvency II.

In the final stage, the calculation of the MCR on the basis of the SCR standard formula may take different forms. One possibility is to set the MCR to a certain fixed percentage of the SCR. Another option would be to use a simplified version of the standard SCR formula, concentrating on the most important risk categories, possibly applying a more straightforward aggregation technique, and calibrated to a lower level of prudence than the SCR.

### 3.2.2 Solvency Capital Requirement

The SCR reflects the capital level an insurance company needs to maintain in order to have a sufficiently low risk of failure. The SCR is therefore the level of capital deemed required for the insurance market to function safely. It corresponds to the level of capital that enables an insurance company to absorb significant unexpected losses over a one year time horizon and gives reasonable assurance to policyholders that payments will be made as they fall due. This “reasonable assurance” will be provided by the use of a certain confidence level. Currently, a level of 99.5 p.c. is envisaged. It means that the probability that a company will be able to absorb unforeseen losses without falling insolvent within a one-year time period is 99.5 p.c.

Compared to the MCR, the SCR is a more flexible control instrument. It means that once a company's available capital falls below the SCR, the supervisor can choose from a number of suitable tools to urge the company to increase its capital within a reasonable time horizon, for instance the request of additional information, the establishment of a financial recovery plan or possibly also a prohibition on underwriting new business.

Solvency II provides for two possible calculation methods for the SCR: one using a standardised formula and one based on insurance companies' internal models. Both methods allow for the calibration of the capital requirements in accordance with an undertaking's risk profile. Box 1 provides more information on both calculation methods.

#### Box 1 – Calculation of the Solvency Capital Requirement

Just as in Basel II for banks, the SCR can be calculated using either a standardised formula or the company's internal models. While the first method is less flexible and cannot fully capture the real risk profile of each individual company, it simplifies the calculations and entails lower compliance costs. Although such a method might remain appropriate for simple companies with an average risk profile, it does not capture the real risk profile of complex companies with very specific activities, for which the use of internal models should be the norm. To encourage effective risk management, the SCR will take account of reinsurance and other forms of risk mitigation techniques.

##### Standardised approach

The standardised approach will apply a relatively simple formula. It will relate capital requirements to each risk category, which will then be combined in an overall capital requirement. For these calculations, a factor-based approach, whereby capital requirements are obtained by applying fixed percentages to a range of balance sheet or income statement items, will be used.

It is clear that the standardised calculations will not be able to fully reflect each individual company's risk profile. For instance, they will not capture the links between assets and liabilities and non-linear effects such as non-proportionate reinsurance, options or guarantees. Therefore, it is proposed, especially in life insurance, to use scenario analyses to supplement the factor-based calculation.

The robustness and reliability of the standard formula will depend, to a great extent, on the methodology used in its construction. One method would be to set a capital requirement for each risk separately. In such a bottom up approach, the different capital components have to be combined into an overall requirement, whereby the diversification effects across risk factors will have to be taken into account. This requires a good understanding of risk dependencies. The results of the quantitative impact studies will be used to calibrate these calculations.





## Internal models

The alternative SCR calculation method uses insurance companies' internal models. These should better reflect the business profile of an undertaking, and thus, allow to better calibrate the regulatory capital according to the real capital needs. The implementation of such internal models requires a much more sophisticated actuarial approach as well as highly developed risk management structures. Therefore, these models will have to be validated by the regulator on an individual basis.

As in banking, the application of internal models requires that supervisors adopt a much more individualised approach to supervision, for instance for the validation of their internal models. This will require the availability of highly qualified staff.

Solvency II might permit more comprehensive use of internal models than Basel II, as it aims at allowing insurance companies to base the calculation of their capital requirements entirely on their internal models. Currently, Basel II only allows the capital required for market and operational risks to be calculated solely on the basis of internal models. For the most important risk factor, credit risk, this is not the case, as the internal ratings-based approach only allows banks to generate themselves the parameters needed in the calculation of the required capital, while the formula for the calculation itself is prescribed by regulation.

Supervisors may, under Pillar II, require insurance companies to hold an additional amount of capital. This decision will be taken at an individual level and be based on the supervisory review process. This increased capital requirement will be called the adjusted SCR.

Solvency II will also include new specifications regarding the categories of balance sheet items that will be eligible as capital to meet solvency requirements. These new rules will ensure compatibility with other financial sectors and take into account recent capital market developments. Insurance companies may, of course, choose to hold more capital than required by regulation for a number of reasons, e.g. to obtain a certain rating, to finance growth or to signal their shareholders' commitment. This additional capital corresponds to the free surplus in Chart 3.

### 3.3 Investment policies

One of the main weaknesses of the current solvency framework for European insurance companies is that the rules governing the assets used to cover technical provisions and regulatory own funds are not fully harmonised. This sometimes results in different local interpretations, potentially leading to unfair competition. In addition, due to recent developments in financial markets, it is not clear whether or not insurers may invest in a range of new financial instruments.

Solvency II will therefore introduce new rules on the investment policy adopted by insurance companies. It is proposed that the assets covering the technical provisions, the SCR and the MCR are subject to the same rules.

However, the form of those investment policy rules remains uncertain. A combination of three types of requirements is envisaged to deal with investment risk. First, investment risk will be incorporated in the SCR (see above). Second, Solvency II will most likely provide eligibility criteria for assets covering the technical provisions and the capital requirements, and impose quantitative limits on asset concentrations both to single asset classes and counterparties. The eligibility of assets may be determined either on the basis of a prescribed list of acceptable (or unacceptable) categories of instruments, or by outlining the characteristics that assets must (or must not) possess (i.e. principle based), or perhaps by using a combination of both methods. Third, Solvency II will, as part of its second pillar, provide qualitative requirements on the appropriate management of assets and liabilities and a prudent investment policy. This combination of qualitative and quantitative requirements would be referred to as the "Prudent Person Plus" approach.

Here too, in the context of the supervisory review process, supervisors will perform a qualitative evaluation of an undertaking's investment and ALM strategies, including the approach to diversification, and, if need be, could increase the capital requirements.

## Conclusions

The new Solvency II framework for insurance companies is clearly inspired by the Basel II framework for banks. Thus, it will adopt the same three pillar framework and introduce the use of internal models in the calculation of the required capital. The similarities essentially stem from the fact that both pursue the same goal: they aim at adapting the solvency system of banks and insurance companies to the new market environment and improving its alignment with the real risk profile of the individual companies.

There are, however, important differences between the two frameworks, which follow from the inherent differences between the two types of business. Solvency II includes detailed rules on the calculation of technical provisions, which represent by far the main category of liabilities for insurance companies. It also introduces specific rules governing the categories of assets in which insurance companies may invest. In addition, the capital requirements are mainly focused on underwriting risk in insurance and on credit risk in banking. Another striking difference is the presence of two capital layers in Solvency II

and only one in Basel II. This reflects the different time dimension of the two types of business: whereas banks' very liquid liabilities call for immediate intervention if their financial situation deteriorates, the long term nature of insurance companies' liabilities allows a more gradual approach.

One has to bear in mind that this presentation of Solvency II is still provisional. Although the main characteristics have already been decided, a lot of issues are still under discussion. In the coming months, the European Commission, the EU Member States and market participants will continue their discussions on the Framework Directive. In this connection, the European Commission has requested additional advice from CEIOPS on pillar I issues, such as the valuation of technical provisions, the shape of the SCR and the MCR formulas, and the recognition of reinsurance and other risk mitigation techniques. In order to be able to incorporate the view of market participants in its advice to the Commission, CEIOPS will, in the second half of this year, issue new consultation papers on these and other issues. At the same time, CEIOPS will continue to work on the implementation measures and, subsequently on the supervisory measures.

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