Financial Services
Commission

Guidance Note

Basel II: Pillar 2 - The ICAAP & The SREP

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Table of Contents

Introduction 3
Group firms 4
The ICAAP 5
ICAAP – Recommended form and content 6
1. Executive Summary 6
2. Background 7
3. Summary of Current and Projected Financial and Capital Positions 7
4. Capital Adequacy 7
5. Capital Planning 17
6. Liquidity Planning 22
7. Aggregation and Diversification 22
8. Challenge and Adoption of the ICAAP 23
9. Use of The ICAAP within the Firm 23
Risks according to the nature of the activities of a firm - Examples 24
Credit institution 24
Asset management firm 25
Securities firm (broker/dealer) 26
Different Approaches 28
The SREP 29
Interaction of the ICAAP and the SREP 29

Introduction

The Pillar 1 capital requirements of the Capital Requirements Directive set the minimum own funds requirements. Pillar 1 does not, however, necessarily capture all risks affecting firms. Additional capital may be appropriately held in Pillar 2 for those risks not captured at all by Pillar 1. In addition, firms are expected to operate above the minimum capital requirements.

The underlying aim of the Pillar 2 process is to enhance the link between a firm's risk profile, its risk management systems and its capital. Firms are expected to develop sound risk management processes that properly identify, measure, aggregate and monitor their risks. Firms should therefore have an adequate assessment process that covers all the key elements of capital planning and management and generates an adequate amount of capital to set against those risks.

The Pillar 2 process is underpinned by 4 principles:

1. A firm's own assessment of capital adequacy in relation to its risk profile and capital strategy;
2. A review and evaluation of the firm's assessment and its ability to monitor and ensure compliance with its own funds requirement;
3. The expectation that firms will operate above the minimum own funds requirements and the ability of the FSC to require a firm to hold capital in excess of the minimum;
4. Supervisory intervention at an early stage (a) to prevent capital from falling below the minimum levels required to support the risk profile of a firm or (b) to require rapid remedial action if capital is not maintained or restored.

These principles are codified in Articles 123, 124 and 136, and Annex XI, of the Capital Requirements Directive. The Capital Requirements Directive has been implemented in Gibraltar via the Financial Services (Capital Adequacy of Investment Firms) Regulations 2007 and the Financial Services (Capital Adequacy of Credit Institutions) Regulations 2007.

The Pillar 2 process is therefore essentially the second phase of Basel II and involves an assessment of the additional capital that is required to mitigate those risks that are not adequately covered by Pillar 1. The process is itself a two-tier one that involves a firm carrying out an internal assessment and the regulator reviewing and evaluating this.

In effect, the adequacy of a firm's capital needs to be assessed both by the firm and the FSC. This therefore involves:

(1) an internal capital adequacy assessment process (ICAAP), which the firm will be required to carry out; and

(2) a supervisory review and evaluation process (SREP), which will be conducted by the FSC as part of its risk assessment of the firm.

Firms should note that although capital is an integral part of any firm's controls and risk management, techniques should be considered and evaluated as capital alone is not always the best mitigant against risk.

Firms shall have in place sound, effective and complete strategies and processes to assess and maintain on an ongoing basis the amounts, types and distribution of internal capital that they consider adequate to cover the nature and level of the risks to which they are or might be exposed.

These strategies and processes shall be subject to regular internal review to ensure that they remain comprehensive and proportionate to the nature, scale and complexity of the activities of the firm concerned.[1]

Firms should be mindful that capital is not the only mitigant available and that in many circumstances, risk can be addressed through adequate systems and controls. Indeed, the FSC acknowledges that for risks which are difficult or impossible to quantify the importance of qualitative provisions within the firm increases.

Some firms may choose to limit their losses using Professional Indemnity Insurance (PII) cover and, as such, PII cover can be regarded as an alternative to capital. Firms will often use PII to mitigate potentially large but low-probability losses, (e.g. certain operational failures). Where firms have used PII cover, we will focus on its limitations (e.g. limits of the indemnity, exemptions, excess, credit quality of the provider and the cash flow implications of the settlement period should a claim be made).

Firms should note that Pillar 2 is currently being strengthened as a result of the current economic climate. The ICAAP process is also evolving, both in international standards and for firms; firms should therefore ensure vigilance and compliance with any developments.

Group firms

Gibraltar groups or firms that are sub-groups or subsidiaries of global groups are still required to have an ICAAP for their Gibraltar business. This is the case for both EEA and non EEA groups.

Where a Gibraltar group or firm is a sub-group or subsidiary of a global group it may use the process and systems of the global group to meet its Gibraltar obligations to have an ICAAP. Where a Gibraltar group or firm uses global systems these must be capable of identifying the risks in the Gibraltar group or firm and determining an amount of capital for the Gibraltar firm.

Firms that are members of a sub-group or subsidiary of a Gibraltar group will be required to have an additional ICAAP at the level of that sub-group or subsidiary. The sub-group or subsidiary will be a subset of the Gibraltar firm's group, and so will also be covered within the Gibraltar group ICAAP. We will not perform a separate SREP of the sub-group or subsidiary but will consider the ICAAP for the sub-group or subsidiary as part of our review of the overall Gibraltar group's ICAAP.

Firms that are not members of a Gibraltar group are required to have an ICAAP that covers the business of the solo firm.

[1] As stipulated in Article 123 of Directive 2006/48/EC.

The ICAAP

An ICAAP is a firm's explanation of its internal capital adequacy assessment process. It should be imbedded in a firm's business and organisational process and management should not merely adopt a "tick-box" approach to it. The introduction of the ICAAP is not meant to replace a firm's existing methodologies for assessing risk exposure and setting capital against these.

The obligation to conduct an ICAAP, includes requirements on a firm to:

(1) carry out regular assessments of the amounts, types and distribution of financial resources, capital resources and internal capital that it considers adequate to cover the nature and level of the risks to which it is or might be exposed;

(2) identify the major sources of risk to its ability to meet its liabilities as they fall due;

(3) conduct stress and scenario tests;

(4) ensure that the processes, strategies and systems used in its ICAAP, are both comprehensive and proportionate to the nature, scale and complexity of that firm's activities; and

(5) document its ICAAP.

A firm should ensure that its ICAAP:

(1) is the responsibility of the firm's governing body;

(2) is reported to the firm's governing body;

(3) forms an integral part of the firm's management process and decision-making culture;

(4) is forward looking and used as a working document; and

(5) produces a reasonable outcome.

Firms will be expected to review the ICAAP at least on an annual basis.

A copy of the ICAAP document will be requested as part of the risk assessment process carried out by the FSC.

The ICAAP document will need to be proportionate to the size, nature and complexity of a firm's business and therefore will vary in length and scope between firms.

The document will also need to be dependant on the firm's stage of development e.g. a start up firm could have a shorter ICAAP though it is expected that this should be reviewed regularly to ensure that it is up to date with the firm's development.

For the ICAAP the firm is required to:

- ensure that the historical context of the business has been set out;
- ensure that the firm's business strategy have been documented;
- document the firm's risk appetite;
- explain what the firm has in place in terms of governance and risk management framework;
- identify the risks and assess the quality of controls;

- consider and quantify material risks and management actions;
- develop and evaluate stress-testing scenarios and conditions;
- determine capital requirement in respect of key risks;
- conclude on the firm's capital adequacy.

Firms whose activities are moderately complex, should in addition:

(1) prepare a comprehensive list of the major risks to which each major business line is exposed;

(2) estimate, with the aid of historical data, where available, the range and distribution of possible losses which might arise from each of those risks and consider using shock stress tests to provide risk estimates;

(3) consider the extent to which that firm's capital resources requirements adequately captures the risks identified in (1) and (2);

(4) for areas in which the CRR is either inadequate or does not address a risk, estimate the additional capital needed (if any) to protect that firm and its customers, in addition to any other risk mitigation action that firm plans to take;

(5) consider the risk that the firm's own analyses of capital adequacy may be inaccurate and that it may suffer from management weaknesses, which affect the effectiveness of its risk management and mitigation;

(6) project that firm's business activities forward in detail for one year and in less detail for the next 3 to 5 years and estimate how that firm's capital and CRR would alter, assuming that business develops as expected;

(7) assume that business does not develop as expected and consider how that firm's capital and CRR would alter and what that firm's reaction to a range of adverse economic scenarios might be;

(8) document the results obtained from the analyses in (2), (4), (6) and (7) in a detailed report for that firm's senior management, and, where relevant, its governing body; and

(9) ensure that systems and processes are in place to review against performance the accuracy of the estimates made in (2), (4), (6) and (7).

Public companies should ensure that any element of credit rating is included within the ICAAP.

ICAAP – Recommended form and content

The ICAAP document needs to cover the following areas:

1. Executive Summary

The purpose of the Executive Summary should be to present an overview of the ICAAP methodology and results. This overview should typically include:

- which regulated entities are covered by the ICAAP;
- the main findings of the ICAAP analysis:
    - how much and what composition of internal capital the firm considers it should hold as compared with the capital resource requirement (CRR) 'pillar 1' calculation, and

- details of the adequacy of the firm's risk management processes;

- a summary of the financial position of the business, including the strategic position of the firm, its balance sheet strength, and future profitability;
- a brief description of the capital and dividend plan, including how the firm intends to manage capital going forward and for what purposes;
- a commentary on the most material risks, why the level of risk is acceptable or, if it is not, what mitigating actions are planned;
- a commentary of major issues where further analysis and decisions are required;
- details of the risk appetite of the firm; and
- it should set out who has carried out the assessment, how it has been challenged, and who has approved it.

2. Background

The firm should consider its relevant organisational and historical financial data.

For example, this would normally include an analysis of the group structure (legal and operational), operating profit, profit before tax, profit after tax, dividends, shareholders funds, capital resources held and as compared with regulatory requirements, customer accounts, deposits at banks, total assets, and any conclusions that can be drawn from trends in the firm's returns.

3. Summary of Current and Projected Financial and Capital Positions

Firms should review their financial position and expected changes to the current business profile, the environment in which it expects to operate, its projected business plan (by appropriate lines of business), projected financial position, and future planned sources of capital.

The starting balance sheet and date as at which the assessment is carried out should also be considered.

4. Capital Adequacy

This section should include a detailed review of the capital adequacy of the firm, including –

Timing

- The effective date of the ICAAP calculations and consideration of any event between that date and the date of submission that would materially impact the calculations;
- Details of, and rationale for, the time period over which capital has been assessed.

Risks analysed

An identification of the major risks faced in each of the following categories, where relevant to the business and activities of the firm. Firm may choose to map these risks as a matrix and, if this approach is chosen, should provide details of any controls/mitigants in place, a brief justification of the potential impact and likelihood of each risk.

i) credit risk;

This could include an assessment of whether the firm's credit risk is fully captured in the capital assessed by Pillar 1.

Firms should ensure that they effectively identify, measure, monitor and control credit risk as well as understand how credit risk interacts with other types of risk (e.g. market, liquidity and reputational risk).

For example, firms should ensure that as a minimum the capital assessment allocates internal capital for the weaker exposure classes where accounting standards do not require (or allow) that provisions are made and where the Pillar 1 approach used does not sufficiently reflect the risk of a particular portfolio.

A firm which uses IRB must ensure that it meets its capital resource requirements for credit risk at all times throughout an economic cycle. This includes the capital resources requirements for credit risk indicated by any stress test carried out as being likely to apply in the scenario tested. For the purpose of deciding what capital resources are or will be available to meet those credit risk requirements from time to time a firm must exclude capital resources that are likely to be required to meet its other capital requirements at the relevant time. A firm must also be able to demonstrate to the FSC at any time that it is complying with this requirement.

ii) market risk;

This could include an assessment of the effect of direct market risk exposure if, for example, the firm engages in proprietary trading book activities.

Should a firm's fee income and all cash be denominated in the same currency as the firm's audited accounts, the firm will be likely to have a nil requirement under Pillar 1 and the same would be anticipated for Pillar 2.

Should amounts due to a firm be denominated in currencies other than the core currency of the firm or should this same firm hold bank accounts in these other currencies, unless the currencies involved are particularly volatile, the figure calculated under the Pillar 1 method should be acceptable for use for Pillar 2 purposes.

Investment firms dealing on own account are exposed to market risk. If they engage in proprietary trading book activities, they have a direct market risk exposure. However, if they act as agent to fulfil a customer order they are usually only exposed to market risk if the transaction does not clear or settle properly.

Firms may use models which may be linked so as to generate an overall estimate of the amount of capital that the firm considers appropriate to hold for its business needs, though this would not be required of firms. For example, the firm is likely to use 'value at risk' (VaR) models for market risk (advance modelling approaches for credit risk and, possibly, advanced measurement approaches for operational risk). The firm might also use economic scenario generators to model its business forecasts and risks. The firm may also link such models to generate information on the economic capital desirable for that firm. Economic capital is the target amount of capital which maximises the return for a firm's stakeholders for a desired level of risk.

The more a firm integrates into its business economic capital modelling (ECM), the more it is likely to focus on managing risks for the benefit of its stakeholders. Consequently, ECMs may produce capital estimates that differ from the amount of capital needed for regulatory purposes. For the FSC to rely on the results of a firm's models, including ECMs, a firm should be able to explain the basis and results of its models and how the amount of capital produced by its models reflects the amount of capital needed for regulatory purposes. It may be that those amounts are not equal. Where they are not equal, the FSC will expect a firm to discuss any differences with the FSC. However, it may prove difficult to reconcile the outcome of a firm's modelling with the FSC's own assessment of the adequacy of that firm's capital. This may be the case when, for instance, matters of judgement are involved in arriving at a firm's capital assessment, or the FSC relies on information which cannot be fully disclosed to the firm (for example, comparisons with the firm's peers). Nevertheless, a firm whose ECM produces a different amount of capital to that required for regulatory purposes is still obliged to comply with the relevant requirements. A firm should therefore be able to explain to the FSC how the outcome of its ECM is adjusted so that it complies with the relevant requirements.

Furthermore, if a complex firm uses an ECM it should validate the assumptions of the model through a comprehensive stress testing programme. In particular this validation should:

(a) test correlation assumptions (where risks are aggregated in this way) using combined stresses and scenario analyses;

(b) use stress tests to identify the extent to which the firm's risk models omit non-linear effects, for instance the behaviour of derivatives in market risk models; and

(c) consider not just the effect of parallel shifts in interest rate curves, but also the effect of curves becoming steeper or flatter.

iii) operational risk;

Whilst operational risk is largely covered by Pillar 1 there may be additional factors that need to be taken into account e.g. impact of loss of key individuals on ability to operate normally and on revenues, consequences of not complying with conduct of business requirements etc.

Just as banks, all investment firms should consider the consequences of operational risk events occurring. For smaller investment firms particular risks may be, for example, the consequences of not abiding by conduct of business rules or the legal framework they are operating in. Firms will need to bear in mind the systems and controls, including compliance requirements, they have put in place to mitigate the risks, such as failing to comply fully with customer mandates, or the cost resulting from fraud or theft.

Tolerance for errors and losses in connection to e.g. people, processes, systems or external events, should be incorporated in this section. As part of their risk assessment process firms should consider their historical operational costs arising due to matters, such as trading errors or other unexpected costs. Depending on their level of complexity, larger firms may require more complex assessment methodologies based on intrinsic impact and probability of occurrence. Firms may choose to mitigate such risks and costs, in whole or in part, by putting in place appropriate systems and controls and also by professional indemnity insurance. Reference to these mitigants should be made here.

Similarly, the firm should ensure that it has adequately tested its business continuity procedures to ensure that it functions adequately and are suitable as a mitigant to the disruption to the business.

It would be very unlikely that a firm could claim that it has no operational risk within its business. When a firm has robust controls, it may be able to demonstrate that its operational risk is low after the consideration of existing controls. However, if firms wish to evidence that adequate capital has been ear-marked to ensure the continued existence of said firm, senior management should be able to demonstrate that the possibility of severe operational risk losses (i.e. less frequent than an average annual loss) has been considered.

In some circumstances lower amounts of capital may be needed if, for instance, a firm has very little loss history or when a loss has occurred and a firm can demonstrate that controls have been adequately tightened. Firms will also need to consider other firms and how the circumstances surrounding these other firms could have a knock-on effect e.g. the fact that a firm has not had a market abuse incident previously does not preclude the possibility of a future incident. How the business is likely to change over the next year should also be considered.

Although qualifying operational risk can be very subjective it can also prove to add useful insight into the firm's assessment of risk provided that the firm is able to demonstrate that a robust process has been followed; available data has been considered and that appropriate internal discussions have been undertaken. These discussions may also aid the firm in identifying areas where potential losses may exceed the firm's documented risk appetite and could, therefore, assist the firm in the focus and prioritisation to control improvements.

Control/management deficiencies should normally be addressed by using risk mitigants other than capital. In fact, the correct response must be to take action to resolve the problems.

Control/management risk due to control/management limitations could be a significant factor for smaller firms. The concept of proportionality means that supervisors would not expect the same degree of sophistication of governance arrangements and controls that could be found in a large firm. However, other things being equal, the overall risk profile may be higher in smaller firms after taking into account the proportionate management and control environment (whether in relation to specific risks, or in general). Smaller firms will also be expected to consider the risk resulting from control/management limitations in their internal capital assessment, if the application of other measures is deemed to be inadequate to address such limitations within an appropriate timeframe.

The supervisory authorities agree that depending on the individual firm's circumstances, in a majority of cases the fixed overhead requirement (FOR) may be a good approximation for the result if the ICAAP for investment firms in the sense of Article 20(2) of the CRD. However, given the FOR's dependence on the fixed overheads costs of the firm, the FOR will not always be a good approximation for the result of the ICAAP for investment firms in the sense of Article 20(2) of the CRD. For example, an investment firm with very high fixed overheads costs and very low risks may find that the FOR is higher than the ICAAP results. Conversely, an investment firm with very low overhead costs and high risks may find that the ICAAP result is higher than the FOR. Therefore, when building their ICAAP, these investment firms should focus on whether the FOR is appropriate as the ICAAP figure for the particular circumstances of their business.

iv) liquidity risk;

This could include an assessment of the extent to which there is a mismatch between assets and liabilities and could occur as a result of the firm's assets having being pledged, inability to sell assets quickly or costs and timing constraints of reducing asset positions at different levels of market liquidation.

Should a firm have, for example, a low appetite for Liquidity Risk, it may wish to explain the reasoning behind a possible scenario such as holding the equivalent of 3 months' expenditure in AAA rated bank accounts or if the firm is a start up firm, it may make the decision to hold sufficient cash reserves to cover expenses over a period of several months until the income stream is stabilised.

If a firm's capital is held in collective investment schemes or other investments there may be some liquidity issues that need to be considered under Pillar 2. Each investment should be looked at closely as it is possible that even if a capital charge has been calculated in accordance to Pillar 1 rules, an additional amount may need to be included within the firm's Pillar 2 calculation. For example, an investment may be subject to a Pillar 1 charge of 12% but in order to meet its liabilities a firm may be forced to

sell this investment and may only receive 80% of the investment's value. This shortfall should be considered and should be incorporated into a firm's Pillar 2 calculation.

Firms dealing on own account are also exposed to liquidity risk as large losses can potentially arise from trades in illiquid securities or assets, which are difficult to sell.

A bank should also consider the sensitivity of its funding, in particular its ability to raise additional funding in times of economic stress. It should therefore consider whether its funding pool is sufficiently diversified. The possibility of raising new capital normally depends on whether the firm has a financially strong parent company and whether the firm is quoted or not. Smaller firms which are unquoted and not listed on a stock exchange have a lower possibility of raising new capital and the cost of new funding will be relatively high. Subsidiaries with financially strong parent companies will normally have easier access to raise additional funding. But if the subsidiary is reliant solely on its parent to provide funding, the firm should take into consideration that its access to funds may be suddenly restricted if the parent's creditworthiness is downgraded.

v) insurance risk;

Firms using insurance to mitigate risk should ensure that the cover is adequate and actually covers the risks being considered. In this instance, the firm should also consider the impact of delays in payment after a claim and how this will affect the firm's cash flow. Firms should also establish if payment on any excess on the policy could have an impact on the firm.

vi) concentration risk;

This could include a firm's exposure to sectoral, geographical, liability and asset concentrations or to a particular client.

A firm should aggregate all similar direct and indirect exposures regardless of where the exposures have been booked. A risk concentration is any single exposure or group of similar exposures (e.g. to the same borrower or counterparty, including protection providers, geographic area, industry or other risk factors) with the potential to produce losses large enough (relative to a firm's earnings, capital, total assets or overall risk level) to threaten a firm's creditworthiness or ability to maintain its core operations or a material change in a firm's risk profile.

Risk concentrations should be analysed at both a local legal entity level and a consolidated basis, as an unmanaged concentration at a subsidiary may appear immaterial at the consolidated level, but can nonetheless threaten the viability of the subsidiary organisation.

Most investment firms are likely to undertake the investment services and activities listed in Schedule 1, Section A (1) to (5) of Financial Services (Markets in Financial Instruments) Act 2006 and as such concentration risk resulting from large exposures to a limited number of counterparties, a large transaction, or to a single product type, is significant. For example, an investment

firm relying on the income generated by a large, one-off corporate finance transaction may wish to consider the possibility of legal action arising from that transaction which could prevent the payment of that income.

Equally, an investment firm relying on a small number of advisory mandates should consider the possibility of losing these mandates which could force the firm out of business..

Additionally, a firm should consider the extent to which it is exposed to counterparty loss. For a fund manager this would entail the non-payment of investment management fees due from a fund. In most cases it is unlikely that this risk would be significant given the nature of the relationship between the firm and the funds it manages. For Pillar 2 purposes, if a firm does not anticipate suffering any credit risk, due to the nature of its relationship with the funds managed, it should set out the nature of the relationship in order to justify the capital charge which should be included within the Pillar 2 calculation. This figure is unlikely to be higher than the Pillar 1 figure.

If a firm manages a number of segregated mandates in addition to hedge funds with which it has a close relationship the Pillar 2 figure should be calculated as above, given that it is generally the case that there has been no significant history of firms suffering from client failures or bad debts being encountered.

vii) residual risk;

This could occur as a result of the partial performance of failure of credit risk mitigation techniques for unrelated reasons e.g. ineffective documentation, a delay or inability to realise payment from a guarantor in a timely manner, etc.

viii) securitisation risk;

This could include an assessment of the effect on a firm’s financial position of a securitisation arrangement failing or of the values and risks transferred not emerging as expected.

When assessing securitisation exposures, a firm should ensure that it fully understands the credit quality and risk characteristics of the underlying exposures in structured credit transactions, including any risk concentrations.

ix) business risk;

Because capital is risk sensitive and may vary as business cycles and conditions fluctuate over time, this could include an assessment of the effects of a deterioration in business or economic conditions that could require additional capital to be raised when market conditions are unfavourable for this.

To assess its expected capital requirements over economic and business cycles, a firm may wish to project forward its financial position taking account of its business strategy and expected growth according to a range of assumptions as to the state of the economic or business environment which it faces. For example, an ICAAP should include an analysis of the impact that the actions of a firm's competitors might have on its performance, in order to see what changes in its environment the firm could sustain. Projections over a three to five year period

would be appropriate in most circumstances. A firm may then calculate its projected capital resources requirement and assess whether it could be met from expected financial resources.

As part of the risk assessment process, a firm may wish to consider in more detail the types of business risks it has identified.

Firms should also consider the possibility of its managed funds being at risk from suffering poor performance. In this respect, a firm may wish to discuss how poor performance is guarded against or how the firm manages investor relationships during a period of poor performance.

Firms are also exposed to performance risk as poor investment returns can affect their ability to generate income, both in short term (for example, because they may not receive performance bonuses) and in the long term (for example, because they find it more difficult to retain or attract new business).

The breakeven level of assets under management which the firm needs to achieve in order to remain profitable should also be considered.

x) interest rate risk;

This could occur as a result of interest rate changes and the effect of this on the balance sheet. For instance, a firm should assess its sensitivity to interest rate risk arising from interest rate mismatches and maturity mismatches between assets and liabilities.

xi) pension obligation risk;

xii) IT risk;

This could occur as a result of inadequate information technology and processing, or arise from an inadequate IT strategy and policy or inadequate use of the firm's information technology.

xiii) Legal and compliance risk;

This could arise as a result of breaches or non-compliance with legislation, regulations, practices or ethical standards. Firms giving investment advice should consider the legal risk of breaching their customer obligations, for example, by giving unsuitable advice. Firms providing execution only services should also consider the risk of not executing clients' orders appropriately.

xiv) reputational risk;

This could arise from an adverse perception of the image of the firm on the part of customers, counterparties, investors or regulators. It may also arise from providing poor customer service.

xv) settlement risk;

This could occur if a firm delivers an asset or cash to a counterparty and does not receive the corresponding funds or asset expected.

This is particularly important for firm transferring funds for clients.

xvi) strategic risk;

This could occur as a result of adverse business decisions, improper implantation of decision or lack of responsiveness to changes in the business environment.

A firm should assess the impact of its business plans on its capital over the time horizon which it uses in its business plan. It should assess the impact on its capital of diversifying its activities and the risk it runs of failing to manage that new business successfully.

xvii) any other risks identified.

Firms should also be aware of any impact from external factors. The FSC expects, however, that the impacts from external factors are normally covered by credit risk, market risk, concentration risk and strategic risk.

All smaller investment firms should consider the impact of external factors when assessing the adequacy of their capital.

Material risks arising from the ICAAP review itself should be detailed in the report including the nature of the risk and its possible impact. The effectiveness of any mitigating controls to be put in place should be considered and, for Pillar 2 purposes, an adequate capital amount should be held.

The firm should:

- For each risk identified, provide an explanation of how the risk has been assessed and the quantitative results of that assessment;

- A clear articulation of the firm's risk appetite by risk category, if this varies from the overall assessment; and

- Where relevant, an explanation of any other methods, other than capital, which is used to mitigate the risks e.g. risk management or control structures.

It is the responsibility of the board of directors and senior management to define the firm's risk appetite and to ensure that the firm's risk management framework includes detailed policies that set specific firm-wide prudential limits on the firm's activities, which are consistent with its risk taking appetite and capacity. Senior management should establish a risk management process that is not limited to credit, market, liquidity and operational risks, but incorporates all material risks.

The board of directors and senior management should possess sufficient knowledge of all major business lines including new or complex products and the associate risks to ensure that appropriate policies, controls and risk monitoring systems are effective.

When analysing Risk, an introduction and summary should be included in order to set the information therein into context. The summary should provide an explanation of the material risks and how each risk category translates into additional capital requirements in respect of Pillar 2. The introduction should, in general, afford an overview of the general controls in place in that firm. The directors will need to capture the necessary information to support their risk evaluation.

The 'risk appetite' of the firm should reflect the firm's tolerance for the amount of risk it is willing to take with capital invested in the firm, rather than within the fund(s) it manages/controls. The 'risk appetite' should be quantified so that should an error arise the cause can be considered and remedied but the firm should also specify the amount of loss/cost that it would be prepared to tolerate.

In terms of aggregation of risks the firm should consider if it has an infrastructure and management information systems. Management information systems should be capable of providing regular, accurate and timely information. The management information system should be capable of capturing limit breaches and there should be procedures in place to promptly report such breaches to senior management and appropriate follow-up actions taken.

Risk measurement begins with a robust, comprehensive and rigorous risk identification process as all risk measures observed in use have advantages and disadvantages which need to be understood within the context of their intended application. Firms should pay particular attention to how risk components are measured and what measurement implies for the interaction between them.

In determining the above, firms should, as a bare minimum,:

(a) identify and consider that firm's largest losses over the last 3 to 5 years and whether those losses are likely to recur;

(b) prepare a short list of the most significant risks to which that firm is exposed (this should be forward looking) (it is likely that those risks identified in the list of all material risks will be conclusive for a smaller firm);

(c) consider how that firm would act, and the amount of capital that would be absorbed, in the event that each of the risks identified were to materialise;

(d) consider how that firm's capital resources requirements might alter under certain scenarios and how this might alter in line with its business plans for the next 3 to 5 years and how it might respond to these changes (small firms may want to perform a sensitivity analysis to understand how sensitive its capital is to changes in internal and external factors such as business risks and changes in business cycles);

(e) consider whether any other risks are applicable to the firm;

(f) document the ranges of capital required in the scenarios identified and form an overall view on the amount and quality of capital which that firm should hold, ensuring that its senior management is involved in arriving at that view; and

(g) in order to determine the amount of capital that would be absorbed in the circumstances detailed in (c) carry out simple sensitivity tests where the firm analyses the impact of a shift in the key risk parameters identified in (b) on the earnings of the firm.

A firm should also form a view on the consolidated amount of capital it should hold as well as the capital required to be held in respect of each of the individual risks identified. For that purpose, it may conservatively sum up the results of the individual tests performed in (c) above. If the firm chooses however to reduce that sum on the understanding that not all risks will materialise at the same time, then the firm should perform scenario tests that demonstrate that a reduction in capital is legitimate.

A firm should consider the impact of an economic or industry downturn on its future earnings taking into account its business plan.

5. Capital Planning

This section should include an analysis of the sensitivity tests undertaken, key assumptions and factors that could have a significant impact on the broader financial condition of the firm. Material changes in the financial risks to which the business is exposed would be explained and quantified as far as possible in this section. The analysis would include financial projections for three to five years based on business plans and capital adequacy calculations. These would take account of expected capital requirements over economic and business cycles.

Scenario analysis and stress testing

The FSC will normally expect to see three to five year financial forecasts as part of the ICAAP. Any firm not including a forecast in its ICAAP statement will be expected to explain the reasons for not doing so and may be challenged on this.

A firm will have to establish its "base case" scenario prior to preparing a detailed budget in order to identify the material risks to it which may need to be factored into the process. The "base case" should include any strategic plans in place e.g. if the firm's business strategy is to double its assets under management or to expand and open new firms, this should be included in the firm's "base case" scenario. This "base case" will need to be tested in order to ascertain what the impact of some stress events would be and what would happen if specific adverse scenarios were to come about. It is important for the firm to identify potential issues so that it can evidence that suitable action plans have been put in place in order to mitigate losses should the event occur.

As part of the stress testing that firms will be required to conduct, firms should report the result of a 200 basis point shock to interest rates on firms' economic value i.e. does the result of above stress test exceed 20% of the firm's economic value; this figure should be compared against the firm's capital resources figure.

Typical scenarios could include:-

- how an economic downturn would affect the firm's capital resources, capital requirements and its future earnings taking into account its business plan;
- how changes in the credit quality of the firm's credit risk counterparties affect the firm's capital and its credit risk capital requirement;
- an assessment by the firm of how it would continue to meet its regulatory capital requirements;
- projections of cash inflows and outflows under stressed conditions.

In conducting an analysis, a firm should evaluate what threats in market conditions would have the biggest impact on the firm's profitability. Once these have been identified, the firm should subject this scenario to stress-testing and evaluate how its liquidity and capital resources would react under such stress test scenarios. A 1 in 25 year event should be considered in this context and may include drops in performance which may impact on performance fees etc. As a result of this the firm should consider what actions could be taken including reducing bonuses or headcount. However, firms should ensure that scenarios remain plausible so that, for instance, a firm's bonus line should not be reduced to nil when doing so will result in the loss of key management staff.

In addition to considering a 1 to 25 year event, the FSC also expects larger or more sophisticated asset managers to consider the impact of a 1 in 200 year event as part of a robust assessment of the capital required to withstand adverse conditions.

Most firms may also wish to consider the plausibility of an orderly wind down as a possible scenario. This should include realistic cost of winding down the company such as redundancy costs and should incorporate other factors such as notice periods for staff. The firm should also make clear at what point the decision to wind down would be activated. In terms of larger firms, winding down may not be a viable option due to e.g. brand value, in these cases the firms will need to ensure that sufficient capital is set aside to allow firms to pass through stress periods.

In some instances, firms may find it useful to show the impact of varying degrees of reduction in assets under management through sensitivity analysis in order to ascertain and mitigate any potential impact.

Whilst income volatility may not appear to be as much of a threat as fund failure or redemptions, firms should consider how income volatility could potentially put a stain on its business. Income volatility could come about as a result of a decrease in assets under management when a single fund is managed or by the loss of one or more significant clients by a multi-manager. A possible mitigant in this case could be having multiple income streams so that loss of part of the business would not necessarily result in failure of the firm.

Investment firms should develop scenarios which relate to their strategic and business plans. These scenarios might consider, for example, the effect of a market downturn affecting transaction volumes, or the impact on the current level of capital should the firm restructure, enter a new market or launch a new product.

Stress and scenario tests applied

Where stress tests or scenario analyses have been used to validate, supplement, or probe the results of other modelling approaches, details of these should be included. In addition scenario analysis should be forward-looking.

While more complex scenarios (such as twists and turns in the yield curve) might tease out certain underlying characteristics in detecting firms with significant levels of interest rate risk, a simple parallel shock is adequate.

Stress testing should provide senior management with a consolidated view of the amount of risk the firm is or might be exposed to under the chosen stress events. Senior management should therefore be presented with information that considers the possibility of the risks materialising simultaneously in various proportions. For instance, it would be misrepresentative to simulate market risk stressed events without considering that, in those circumstances, market counterparties may be more likely to default.

Accordingly, a firm should:

(a) carry out combined stress tests where assets and liabilities are individually subjected to simultaneous changes in two or more risk drivers; for instance, the change in value of each loan made by a firm may be estimated using simultaneous changes to both interest rates and stock market or property values;

(b) integrate the results of market and credit risk models rather than aggregating the results of each model separately; and

(c) consider scenarios which include systemic effects on the firm of wider failures in the firm's market or systems upon which the firm depends and also any possible systemic effects caused by the firm itself suffering losses which affect other market participants which, in turn, exacerbate the firm's position.

Economic capital

Economic capital (EC) can be defined as the method or practice that allows firms to attribute capital to cover economic effects or risk-taking activities. (Please note that the ICAAP does not fully encompass economic capital, however, firms may use economic capital models to assist in determining their capital under Pillar 2). Firms should note that not having EC does not automatically prevent a firm from assessing the adequacy of capital.

Firms should consider:

- Using economic capital measures in conducting the firm's business and capital planning.
- Having measures in place to ensure the meaningfulness and integrity of economic capital measures
- Having adequate resources to ensue a strong, credible infrastructure to support the economic capital process.

Economic capital modelling is a very important aspect of large and complex financial firms[2]. Firms using economic capital models should ensure that the models validation is conducted rigorously and comprehensively.

Where economic capital models (ECMs) are used firms should include details of the assumptions behind the model e.g. the confidence level, time horizon, and description of the event to which the confidence level relates. Where scenario analyses or other means are used, then some description of how the severity of scenario has been chosen should be included.

A firm may approach its assessment of adequate capital by developing a model, including an ECM, for some or all of its business risks. The assumptions required to aggregate risks modelled and the confidence levels adopted should be considered by the firm's senior management. A firm should also consider whether any relevant risks, including systems and control risks, are not captured by the model.

A firm should not expect the FSC to accept as adequate any particular model that it develops or automatically to reflect the results from the model in any individual capital guidance.

There is no prescribed approach as to how a firm should develop its internal capital model. However, a firm should be able to demonstrate:

(1) the confidence levels set and whether these are linked to its corporate strategy;

(2) the time horizons set for the different types of business that it undertakes;

(3) the extent of historic data used and back-testing carried out;

(4) that it has in place a process to verify the correctness of the model's outputs; and

(5) that it has the skills and resources to operate, maintain and develop the model

In relation to the use of an ECM, the FSC is likely to place more reliance on a firm's ICAAP if the firm provides the following information:

(1) a comparison of the amount of capital that the ECM generates in respect of each of the risks captured in the Capital Resources Requirement CRR before aggregation with the corresponding components of the CRR calculation; and

(2) evidence that this guidance has been followed.

If a firm adopts a top-down approach to developing its internal model, it should be able to allocate the outcome of the internal model to risks it has previously identified in relation to each separate legal entity, business unit or business activity, as appropriate.

If a firm's internal model makes explicit or implicit assumptions in relation to correlations within or between risk types, or in relation to diversification

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[2] For guidance on Economic capital modelling, please refer to Basel Committee on Banking Supervision (BCBS) consultative document on "Range and practices and issues in economic capital modelling" published August 2008.

benefits between business types, the firm should be able to explain to the FSC, with the support of empirical evidence, the basis of those assumptions.

A firm's model should also reflect the past experience of both the firm and the sectors in which it operates.

The values assigned to inputs into a firm's model should be derived either stochastically, by assuming the value of an item can follow an appropriate probability distribution and by selecting appropriate values at the tail of the distribution, or deterministically, using appropriate prudent assumptions. For options or guarantees which change in value significantly in certain economic or demographic circumstances, a stochastic approach would normally be appropriate.

A firm may decide to hold additional capital to mitigate any weaknesses in its overall control environment. These weaknesses might be indicated by the following:

(1) a failure by a firm to complete an assessment of its systems and controls to establish whether they are compliant; or

(2) a failure by a firm's senior management to approve its financial results; or

(3) a failure by a firm to consider an analysis of relevant internal and external information on its business and control environment.

In considering if there are any systems and control weaknesses and their effect on the adequacy of the CRR, a firm should be able to demonstrate to the FSC that all the issues have been considered and that appropriate plans and procedures exist to deal adequately with adverse scenarios.

Methodology and assumptions

This should include a description of how assessments for each of the major risks have been approached and the assumptions made. The description should make clear which risks are covered by each approach.

Where the firm uses an internal model for the quantification of its risks, this section should explain for each of those methods:

- the key assumptions and parameters within the capital modelling work and background information on the derivation of any key assumptions;
- how parameters have been chosen, including the historical period used and the calibration process;
- the limitations of the model;
- the sensitivity of the model to changes in those key assumptions or parameters chosen; and
- the validation work undertaken to ensure the continuing adequacy of the model.

Capital transferability

This should include details of any restrictions on the management ability to transfer capital into or out of the business, due to, for example, contractual, commercial, regulatory or statutory or group restrictions that apply.

Management Actions

This section should expand on the management actions assumed in deriving the ICAAP, in particular:

- the quantitative impact of management actions – sensitivity testing of key management actions and revised ICAAP figures with management actions excluded;
- evidence of management actions implemented in the past during similar periods of economic stress.

Firms should ensure that transparency is integrated into the decision making of the firm.

6. Liquidity Planning

This section should summarise how liquidity risk is managed (as distinct from any capital set aside to cover losses incurred in liquidity stress). In particular, it should set out the key assumptions and conclusions from stress testing cash flows undertaken to manage the risk. The following, where relevant should be included as appendices:

- Asset-Liability Committee (ALCO) papers and samples of Management Information (MI) used day to day in Treasury departments; daily cash flow forecasts, weekly, monthly etc.
- Liquidity policy including Liquidity and funding policy documentation (solo and group) and Liquidity stress testing documentation.
- An explanation of intra-group liquidity arrangements, especially if operating in several countries.
- Analysis of liquidity demands and sources of liquidity (i.e. funding risk and market liquidity risk affecting assets) by name and considering strategic and tactical management of the risk.
- Quantified Contingency Funding Plans.
- Internal Audit reports.
- An organisation chart that covers liquidity and funding risk management delegated authorities and reporting lines within the firm.
- Limit breach policy documentation
- Securitisation documentation detailing how the programmes function.
- Number, scale and timeline of commitments whether formal or informal towards:
  - Off-balance financing vehicles,
  - Market counterparties (including margin or collateral obligations) or
  - Towards clients

7. Aggregation and Diversification

This section should describe how the results of the various separate risk assessments are brought together and an overall view taken on capital adequacy. This requires some sort of methodology to be used to quantify the

capital required to support individual risks so that they can be aggregated into a total figure.

As regards the overall assessment, this would describe how the firm has arrived at its overall assessment of the capital it needs taking into account such matters as:

- the inherent uncertainty in any modelling approach;
- weaknesses in the firm's risk management procedures, systems or controls;
- the differences between regulatory capital and internal capital; and
- the differing purposes that capital serves: shareholder returns, avoidance of regulatory intervention (e.g. on large exposure notifications), protection against uncertain events, consumer protection, customer perception, working capital, capital held for strategic acquisition etc.

8. Challenge and Adoption of the ICAAP

This section should describe the extent of challenge and testing of the ICAAP. It should include the testing and control processes applied to the ICAAP models or calculations, as well as the senior management or board review and sign off procedures. A copy of any relevant report to senior management or the board and their response should be attached.

Details of the reliance placed on any external suppliers should also be detailed here e.g. for generating economic scenarios.

The ICAAP should be challenged by senior management but some firms may find it useful to have external parties challenge the ICAAP prior to finalisation. A copy of any report obtained from an external reviewer or internal audit should also be included.

In order to demonstrate a function risk management framework firms will need to include whose responsibility it will be to identify, assess, monitor and manage key risks to the business. Firms will also need to evidence senior management involvement through minuting regular discussion pertaining to future and current perceived risk to the business based on management information which is both relevant and proportional to the task. Senior management should also consider how external changes could impact the firm's key risks and controls.

Improvements in risk management must evolve to keep pace with rapid financial innovation.

9. Use of The ICAAP within the Firm

This should demonstrate the extent to which capital management is embedded within the firm. This should include the extent and use of capital modelling or scenario analysis and level of stress testing within the firm's capital management policy, e.g. in setting pricing and charges and the level and nature of future business.

This should also include a statement of the firm's actual operating philosophy on capital management and how this links to the ICAAP submitted. Differences in risk appetite used in the ICAAP as compared to that used for business decisions could be referred to here.

Any anticipated future refinements within the ICAAP (highlighting those aspects which are work-in-progress) and any other information that the firm believes will assist the FSC in reviewing the ICAAP should also be included here.

Supporting documentation and working papers to support the significant assumptions and judgements made in the ICAAP should ideally be kept as part of the audit trail.

When the FSC reviews the firm's ICAAP, it will be looking at actions taken by management for evidence that the ICAAP is being used within the business.

All firms should state what internal capital amount they consider adequate for the nature, scale and complexity of their activities. This should be clearly expressed and documented in this section.

Risks according to the nature of the activities of a firm - Examples

This section provides examples of the sorts of risks which -

(a) a credit institution;

(b) an asset management firm; and

(c) a securities firm;

Examples of the type of the stress tests or scenario analyses which these firms might carry out as part of an ICAAP are also included.

Credit institution

Concentration risk resulting from concentrated portfolios may be significant for some banks.

If a bank chooses to use the CRR as a starting point for its capital assessment, it should remember that, when assessing its exposure to concentration risk, the calculation of the CRR is based on the assumption that a firm is well-diversified.

In assessing the degree of credit concentration, a bank should consider its degree of credit concentration in a particular economic or geographic area. Where the business of a bank is, by its nature, concentrated, a bank should consider the impact of adverse economic factors in which it has a concentration of exposures, and its impact on asset quality. A gradual change of cultural environment could affect a bank and it should consider whether this issue should be the subject of scenario analysis.

A bank should take into account factors such as future business growth and cyclicality when it assesses the amount of capital which it will need. A bank may also consider in its assessment whether any large exposures, that it has identified, are positively correlated.

Where a bank lends to a counterparty which it assesses as representing a high credit risk, it should assess whether it is able to manage that risk prudently.

The performance of specialised portfolios may, in some instances, depend on key individuals. This factor exacerbates concentration risk because the skill of those individuals, in part, limits the risk arising from a concentrated portfolio. The impact of those individuals is likely to be correspondingly greater in small firms. In developing its stress tests and scenario analyses, a bank should therefore consider the impact of losing key individuals on its ability to operate normally, as well as the direct impact on its revenues.

When assessing the adequacy of its capital, a bank should not only consider the vulnerability of its revenue, but also the sensitivity of its funding and, in

particular, its ability to raise additional funding in time of economic stress. A bank should therefore consider whether its funding pool is sufficiently diversified. For example, where a bank is reliant solely on its parent to provide funding, its access to funds may be suddenly restricted should the parent's creditworthiness be downgraded.

A bank should assess the impact of its business plans on its capital over the time horizon which it uses in its business plans. A bank should assess the impact on its capital of diversifying its activities and the risk it runs of failing to manage that new business successfully. For that purpose, it may consider the cost of a price war to enter a new competitive market or the risk of mis-pricing some products as a result of not having sufficient expertise in its new area of business.

A bank is also exposed to reputational risk, as its ability to underwrite new business is heavily reliant on the standing of the reputation of the firm. A bank may consider the impact on its financial position of legal disputes which damage its reputation.

When the FSC is the host supervisor we expect local bank management to be adequately informed and empowered. However, global banks will not be required to develop stand-alone economic capital models for each subsidiary.

In general, the FSC expects the Pillar 1 minimum capital requirements to be unlikely to be appropriate for small banks and building societies due to the direct risk posed to depositors and consumers in the event of their failure unless the risk has been mitigated in a way other than through additional capital buffers.

Asset management firm

An asset manager is primarily exposed to operational risk and reputational risk.

When assessing reputational risk an asset manager should consider issues such as:

(1) how poor performance can affect its ability to generate profits;

(2) how a decrease in assets under management will affect the firm;

(3) the effect on its financial position should one or more of its key fund managers leave that firm;

(4) the effect on its financial position should it lose some of its largest customers; and

(5) how poor customer services can affect its financial position; for example, a firm which has outsourced the management of customer accounts may want to consider the impact on its own reputation of the service provider failing to deliver the service.

In addition to the above matters to consider, firms should contemplate the following:

(1) what is the impact of making significant use of leverage;

(2) any illiquid assets that are held which are difficult to price;

(3) is there over reliance on certain individual(s) to provide advice; and/or

(4) the potential pitfalls of reliance on a principal third party for advice.

As an asset manager's mandates become more complex, the risk of it failing to comply fully with the terms of its contracts increases. In the event of such

failure, a firm can be exposed to substantial losses resulting from customers' claims and legal actions. Although the FSC would expect an asset manager to have in place adequate controls in order to mitigate that risk, it may also wish to consider the potential cost to it should customer's claim that it has not adhered to mandates. Past claims and compensation may provide a useful benchmark for an asset manager to assess its sensitivity to future legal action. In assessing the adequacy of its capital, an asset manager may therefore consider whether it could absorb the highest operational loss it has suffered over the last 3 to 5 years.

An asset manager should also consider, for example:

(1) the direct cost to it resulting from fraud or theft;

(2) the direct cost arising from customers' claims and legal action in the future; an asset manager could consider the impact on its financial position if a legal precedent were to encourage its customers to take legal action against that firm for failing to advise correctly on a certain type of product; the relevance of such scenarios is likely to depend on whether the asset manager is acting on a discretionary basis or solely as advisor; and

(3) in relation to professional indemnity insurance, the deductibles and individual or aggregate limits on the sums insured.

The FSC expects an asset manager to consider the impact of economic factors on its ability to meet its liabilities as they fall due. An asset manager should therefore develop scenarios which relate to its strategic and business plan. An asset manager might therefore consider:

(1) the effect of a market downturn affecting both transaction volumes and the market values of assets in its funds; in assessing the impact of such a scenario, an asset manager may consider the extent to which it can remain profitable (for example, by rapidly scaling down its activities and reducing its costs);

(2) the impact on current levels of capital if it plans to undertake a significant restructuring; and

(3) the impact on current levels of capital if it plans to enter a new market or launch a new product; it should assess the amount of capital it needs to hold, when operating for the firm time in a market in which it lacks expertise.

As part of the ICAAP, firms will be required to calculate (and include in the document) the ratio of dealing errors in relation to the total number of transactions undertaken in the past 12 months.

It is very important for senior management to take an integrated, firm wide perspective of a firm's risk exposure, in order to support its ability to identify and react to emerging and growing risks in a timely and effective manner.

Securities firm (broker/dealer)

A securities firm may consider the impact of the situations listed below on its capital levels when assessing its exposure to concentration risk:

(a) the potential loss that could arise from large exposures to a single counterparty;

(b) the potential loss that could arise from exposures to large transactions or to a product type; and

(c) the potential loss resulting from a combination of events such as a sudden increase in volatility leaving a client unable to meet the margin calls due to the large size of the underlying position and the subsequent difficulties involved in liquidating its position.

An example of the analysis in (b) relates to a securities firm which relies on the income generated by a large, one-off corporate finance transaction. It may want to consider the possibility of legal action arising from that transaction which prevents the payment of its fees. Additionally, an underwriting firm may, as a matter of routine, commit to place a large amount of securities. It may therefore like to assess the impact of losses arising from a failure to place the securities successfully.

Where a securities firm deals in illiquid securities (for example, unlisted securities or securities listed on illiquid markets), or holds illiquid assets, potentially large losses can arise from trades that have failed to settle or because of large unrealised market losses. A securities firm may therefore consider the impact of liquidity risk on its exposure to:

(1) credit risk; and

(2) market risk.

Counterparty risk rules only partially capture the risk of settlement failure as the quantification of risk is only based on mark-to-market values and does not take account of the volatility of the securities over the settlement period. A securities firm's assessment of its exposure to counterparty risk should take into account:

(1) whether it acts as arranger only or whether it also executes trades;

(2) the types of execution venues which it uses; for example, the London Stock Exchange or a retail service provider have more depth than alternative trading systems; and

(3) whether it offers extended settlements and free delivery compared to delivery versus payment business.

A securities firm should also consider the impact of external factors on the levels of capital it needs to hold. Scenarios covering such external factors should relate to its strategy and business plan. This should include:

(1) whether it plans to participate in a one-off transaction that might strain temporarily or permanently its capital;

(2) whether the unevenness of its revenue suggests that it should hold a capital buffer. Such an assessment could be based, for instance, on an analysis of past revenue and the volatility of its capital;

(3) how its income might alter as interest rates fluctuate where it is obliged to pay interest to its clients in excess of interest it earns on client money deposits;

(4) how its capital would be affected by a market downturn. For instance, how sensitive that firm is to a sharp reduction of trading volumes;

(5) how political and economic factors will affect that firm's business. For instance, a commodity firm may wish to consider the impact of a sharp increase in prices on initial margins and, consequently, on its liquidity; and

(6) whether it anticipates expanding its activities (for example, by offering clearing services), and if so, the impact on its capital.

A securities firm may also want to assess the impact of its internal credit limits on its level of capital. For instance, a firm whose internal procedures authorise dealing without cash in the account or without pre-set dealing limits might consider more capital is required than if it operated stricter internal credit limits.

Different Approaches

This is not meant to be an exhaustive list of all the approaches but a sample of different approaches that can be used by firms in producing its ICAAP.

Pillar 1 minimum capital requirements approach

This is where a firm which chooses to use the Pillar 1 minimum capital requirement as the starting point to consider what additional capital may be required to take account of those risks which are not included or fully captured by the Pillar 1 minimum capital requirement. This requires at an initial stage an assessment of whether the Pillar 1 minimum capital requirement fully captures the Pillar 1 risks (credit risk, market risk and operational risk), and second, how much capital to allocate against the Pillar 2 risks and external factors.

Structured Approach

A firm which chooses to use a structured approach will need to set the internal capital requirement at a starting point of zero capital and then build on capital due to all Pillar 1 and Pillar 2 risks as well as external factors. This methodology could be seen as a simple model for calculating economic capital and is not based on the Pillar 1 minimum capital requirement.

All material risk areas, including credit risk, market risk and operational risk, should be assessed and taken into consideration when assessing the internal capital need.

A sensitivity analysis could form the starting point. The sensitivity analysis should be based on exceptional but plausible scenarios. Risks which are not included in the sensitivity analysis should also be considered in terms of the structured approach.

Allocation of risk-taking approach

A firm which chooses to use this method will start from its actual capital (risk-taking capacity) and compare this figure to its total risks. In doing so it would breaks the capital down to all its material risks. This step in the process requires quantification or at least an estimation method for various risks. The amount of capital provided for each risk category is determined by the current and envisaged amount of risk in each category, a risk buffer and the risk appetite of the firm. The firm will decide which type of risk quantification/estimation method is suitable and sufficient for its particular use. If the allocated capital seems insufficient, either the risk has to be reduced or the capital has to be raised. The allocated amounts of the capital will therefore work as a limit system, which assists and facilitates the firm in balancing its risk-taking capacity and its risks. The actual calculation and allocation of capital always needs to be supplemented by sufficiently robust qualitative procedures, measures and provisions to identify, manage, control and monitor all risks.

The SREP

The task of the FSC is to review and evaluate the ICAAP and the soundness of the internal governance processes within which it is used. The purpose of this process is to ensure that a firm has sufficient capital to support all material risks to which the business is exposed.

The SREP will effectively –

- review and evaluate:
  - the firm's risk profile
  - the adequacy and reliability of the firm's ICAAP
  - the adequacy of the firm's own funds and internal capital in relation to the assessment of its overall risk profile.
- monitor ongoing compliance with standards laid down in the Capital Requirements Directive, as implemented in Gibraltar.
- identify any weaknesses or inadequacies and the necessary prudential measures to address these.

The SREP will be integrated into the FSC's risk based approach to supervision and will form part of a firm's risk assessment and on-site process.

Interaction of the ICAAP and the SREP

The ICAAP and SREP form two integral, and mutually complementary, parts of the overall supervisory review process that Pillar 2 represents. The interaction of the ICAAP and the SREP is illustrated in figure 1 below.

A key element of the supervisory review process will be the dialogue between the FSC and firms. The dialogue should embrace the following four elements –

i. Element 1 – Pillar 1 risks (credit, market and operational)

ii. Element 2 – Risks not fully captured under Pillar 1 (for example, securitisations or residual risk)

iii. Element 3 – Risks covered by Pillar 2 (for example, interest rate, concentration liquidity, reputational or strategic risk)

iv. Element 4 – External factors, where not already considered under one of the above.

The FSC will use this dialogue process to test and challenge a firm's ICAAP, in order to reach a better understanding of the underlying assumptions and processes.

Where issues are identified either through the SREP or as part of on-going supervision the following are some of the prudential measures that the FSC may choose to apply -

- Requiring a firm to hold own funds above the minimum level required by Pillar 1 and/or imposing other limitations on own funds.
- Requiring a firm to improve its internal control and risk management framework.
- Requiring a firm to apply a specific provisioning policy or treatment of assets in terms of own funds requirements.

- Restricting or limiting a firm's business or operations.
- Requiring a firm to reduce the risk inherent in its activities, products and systems.

Some key questions that the FSC will consider:

- Is each material risk adequately monitored and controlled?
- Does the firm have a good risk-management culture?
- Is senior management closely involved in managing capital and designing the ICAAP?
- Is the firm generally good at keeping its losses under control and does it have a good track record in dealing with errors, customer claims, un-reconciled items etc.?

Following the SREP process the FSC will write to the firm's Board to feed back the results of the assessment. This letter will formally tell the firm the ICAAP figure the Commission considers to be appropriate and it will include reasons for any capital adjustments to the firm's ICAAP, should the figure be set higher, that will need to be made. It will also identify, where appropriate, what actions the firm can take to reduce the level of these capital adjustments.

Figure 1 –

The Supervisory Review Process: The interaction of the ICAAP and the SREP