It's not a recovery plan – it's a management action tool kit

What U.S. life insurers can learn from the best practices of European insurers' recovery plans, and how such planning can be used to support a broader enterprise risk management program

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Introduction

Recently proposed developments within the Solvency II regime, under the emerging harmonized recovery and resolution framework, mean that a significant proportion of European insurers will very soon need to submit a *preemptive recovery plan* to their local regulators.

Such a plan will detail a range of actions that could be taken by the insurer to restore its financial position where that position has signficantly deteriorated, and hence ensure that the company can continue as an ongoing viable concern in the event of financial stress. The plan is prepared by the insurer but needs to be approved by the company's regulator.

In some juridictions in Europe—specifically with reference to France, Ireland, and the Netherlands—the local regulator is already requiring a recovery plan to be submitted. While still in its early days, emerging experience in these jurisdictions can offer a glimpse into the future to understand just how effective the recovery plans may be for giving regulators comfort that, in stressed financial conditions, the insurer will be able to act to ensure policyholder obligations can continue to be met.

In addition, and most interestingly, some companies are starting to look beyond merely meeting a regulatory requirement, and considering how a recovery plan can help support the company's internal enterprise risk management (ERM) program, insomuch as it gives focus to how the company will respond in the most adverse of tail risk situations.

Moreover, while the requirement to prepare a recovery plan has not seen much interest by regulatory regimes outside of Solvency II,[1] the potential usefulness of such a plan as an internal management tool merits consideration for non-European insurers. For example, to the extent stress testing is a major focus of a recovery plan, it clearly aligns with one of the key aspects of an insurer's Own Risk and Solvency Assessment (ORSA), and there may be synergies worth exploring specific to that area.

This more strategic aspect of recovery planning is the focus of this paper, with a particular emphasis on the opportunities for U.S. life insurers. Specifically, we will explore the recovery planning landscape across the globe, propose some ways in which recovery plans could contribute to broader ERM programs with a particular focus on the management action aspects, and close with some thoughts on implications for enterprise risk monitoring and reporting.

[1] The Bermuda Monetary Authority (BMA) has issued a consultation paper, "Proposed Introduction of Recovery Planning Regime for the Insurance Sector," articulating the BMA's proposed approach to the regulation of "recovery planning" for the local insurance sector. See https://www.bma.bm/viewPDF/documents/2022-06-06-09-46-55-Consultation-Paper---Recovery-Planning-Regulations-Insurance-Sector.pdf. Additionally, the updated Isle of Man Corporate Governance Code for Insurers (effective June 30, 2022) requires firms to consider how they would recover from severely adverse circumstances (including hypothetical insolvency). See https://www.iomfsa.im/media/2922/corporategovernancecodeofpracticeforinsurers2021.pdf.

Recovery planning landscape across the globe

Activity around recovery planning in the global life insurance industry has been motivated almost entirely by emerging regulatory requirements, particularly in Europe, where for some years now the European Insurance and Occupational Pensions Authority (EIOPA) has been strongly advocating such planning. On September 22, 2021, the European Commission (the Commission) adopted a comprehensive review package of Solvency II rules in the European Union, including a legislative proposal for a new Insurance Recovery and Resolution Directive.[2] While the package has yet to be discussed by the European Parliament, and any amendments to the Solvency II Directive will need to be supplemented by Delegated Acts at a later stage, the Commission's intentions are clear. Soon enough, a significant proportion of insurers covered by Solvency II will be required to prepare and submit preemptive recovery plans. As stated in the press release issued by the European Commission:

"The aim of the Insurance Recovery and Resolution Directive is to ensure that insurers and relevant authorities in the European Union are better prepared in cases of significant financial distress.

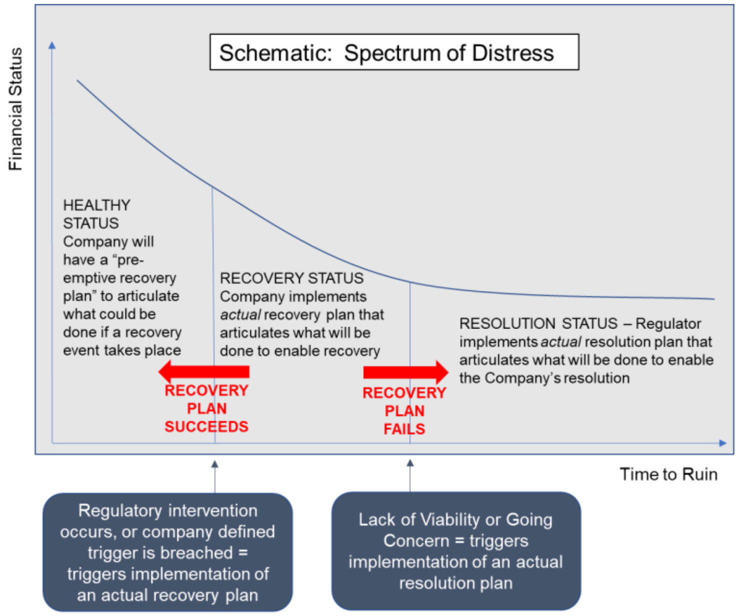
It will introduce a new orderly resolution process, which will better protect policyholders as well as the real economy, the financial system and ultimately tax payers. National authorities will be better equipped in the event of an insurance company becoming insolvent."

From the Solvency II perspective, the definition of what constitutes a *recovery plan* versus a *resolution plan* is clear. "Recovery" and "resolution" are on the same spectrum of financial distress.

- A recovery plan will articulate remedial actions to be taken where a company is in financial distress. The plan is thus focused on company actions to enable the company to continue to operate as a viable going concern. The plan will be developed, owned, and approved by the company, and subject to regulatory scrutiny.
- A resolution plan, on the other hand, will lay out the steps that will be followed when a company has run into such a state of financial distress that it can no longer operate as a going concern. Hence it will articulate the actions to be taken when a recovery plan has failed, detailing how policyholder obligations will be met in such a circumstance, e.g., transfer to another carrier. The resolution plan is drafted, owned, and approved by the regulator, with input provided by the insurer.

[2] European Commission (September 22, 2021). Reviewing EU insurance rules: Encouraging insurers to invest in Europe's future. Press release. Retrieved July 27, 2022, from https://ec.europa.eu/commission/presscorner/detail/en/ip_21_4783.

FIGURE 1: SPECTRUM OF DISTRESS



The distinctions between preemptive (or anticipated) recovery plans, actual recovery plans, and resolution plans are important (and somewhat nuanced). A preemptive recovery plan (prepared by the company in a state of financial health) articulates what the company could do following a financial health trigger, warning, or intervention, whereas an actual recovery plan states what the company will do given that such an event has now actually occured. A similar train of thought applies to resolution plans. The schematic in Figure 1 illustrates these concepts.

For clarity, it should be noted that a recovery plan is prepared by the company, whereas a resolution plan is prepared by the regulator. A company would not articulate a potential resolution plan as part of its preemptive recovery plan (as it is not at the discretion of the company as to how resolution would be effected if it is no longer a viable going concern).

For the purposes of this paper, the focus is the preemptive recovery plan (i.e., the plan that considers actions that could be taken if a recovery event were to occur). This type of plan can yield some invaluable insights to the operations of the business as an ongoing viable concern, which of course is the focus of the executive senior management and the board of directors, and hence can potentially contribute to strategic management decisions.

As referenced in the introductory section of this paper, France, Ireland, and the Netherlands have each already moved ahead of the proposed Solvency II requirements with regard to recovery plans. The spirit of what is in place is the same across all of the countries and in line with what is coming under Solvency II, although there are differences in the details. For example, Ireland and the Netherlands require the majority of companies to submit a plan, whereas France only requires firms of systemic importance (and hence of a certain size) to submit a plan. Another example is that the Dutch requirements focus on solvency and liquidity, whereas the Irish requirements get into wider aspects such as operational impacts. Additonally, Ireland requires a detailed strategic analysis of the business to be performed and documented in the plan whereas other countries do not. More on that below.

In addition to the regulatory developments in Europe, the guidance of the International Association of Insurance Supervisors (IAIS) regarding recovery planning[3] and resolution planning[4] is also of note. With its recovery planning application paper, the IAIS adopted a set of Insurance Core Principles as well as a common framework for internationally active insurance groups (IAIGs), which include AIG, Berkshire Hathaway, Chubb, CNA, Liberty Mutual, MetLife, and Prudential. This framework details standards for preemptive recovery planning and, under the purview of the Financial Stability Board (FSB), Globally Systemically Important Insurers (G-SIIs), which include AIG, MetLife, and Prudential. G-SIIs were required to produce recovery plans. While U.S. regulators have not adopted the concept of IAIGs as part of their oversight framework, and the identification of G-SIIs was suspended at the beginning of 2020 in light of the FSB's new "Holistic Framework" (the need to identify G-SIIs will be reassessed in November 2022), the point remains that credit should be given to the IAIS for its excellent work in the area of recovery and resolution planning.

Ireland's requirements: A reference point for recovery planning best practice

Ireland and the Netherlands both have many elements of what may be viewed as recovery planning best practice. In the remainder of this paper we focus on the Irish requirements as a possible useful reference point for U.S. insurers in gauging whether elements of a recovery plan could help in managing the business and supporting strategic decision making.

On April 19, 2021, the Central Bank of Ireland (CBI) published its preemptive recovery plan regulations for insurers, specifying March 31, 2022, as the date by which the majority of regulated firms needed to have plans in place.[5] In those regulations, the CBI clearly states its objectives in introducing regulations requiring a preemptive recovery plan. The following is taken verbatim from the CBI's press release publishing the regulations:

- Promote awareness and allow firms to prepare for a range of possible adverse situations.
- Enable firms to consider and evaluate the most appropriate and effective mitigation without the resulting pressures of actual severe stress.
- Enable firms to take more effective, comprehensive, and thoughtful measures to ensure their timely implementation if required.

The CBI regulations are very clear and detailed in terms of the format of the recovery plan, and indeed the document looks as though it will set the bar for supervisor requirements that may soon apply across the Solvency II jurisdiction.

It is instructive to look in more detail at what the CBI's requirements are. The CBI requires that an insurer's recovery plan includes 10 sections. The content of each section is summarized in the table in Figure 2, as shown on the following page.

[3] IAIS (November 18, 2019). Application Paper on Recovery Planning. Retrieved July 27, 2022, from https://www.iaisweb.org/uploads/2022/01/191125-Application-Paper-on-Recovery-Planning.pdf.

[4] IAIS (June 23, 2021). Application Paper on Resolution Powers and Planning. Retrieved July 27, 2022, from https://www.iaisweb.org/uploads/2022/01/210623-Application-Paper-on-Resolution-Powers-and-Planning.pdf.

[5] Irish Statutory Instruments S.I. No. 184 of 2021. Central Bank (Supervision and Enforcement) Act 2013 (Section 48[1]), Recovery Plan Requirements for Insurers, Regulation 2021.

FIGURE 2: CBI REQUIREMENTS REGARDING CONTENTS OF A RECOVERY PLAN

PART	CONTENT
A – Summary	Gives an overview of the information outlined in the recovery plan under each of the main headings of the plan.
B – Changes since the last recovery plan	Identifies any material changes to the insurer, the group of which the insurer is part, or the recovery plan itself, which are relevant to the insurer's recovery capacity since the recovery plan was last approved by the board.
C – Approval of the recovery plan	Confirms that the recovery plan has been approved by the board, and states on what date it was approved.
D – Governance	Starts to get into the details of the plan, with a focus on governance aspects of recovery planning, including: ▪ The insurer's policies and procedures governing review, update, approval, and invoking of the recovery plan by the insurer ▪ A description of how the recovery plan is integrated into the broader system of governance and the risk management framework of the insurer ▪ The insurer's policies and procedures for timely implementation of any recovery options.
E – Strategic analysis	Provides detailed information about the insurer's business, including product lines, geographical markets, the types of services, and information about areas of interconnectedness and reliances (e.g., risk transfer arrangements, legally binding guarantees, etc.). This will in turn help give a reader an understanding of the nature of the underlying risks to which the insurer may be exposed, and hence give comfort that any recovery planning has been established in the light of these underlying risks.
F – Recovery indicators	Describes key risk indicators and associated limits and thresholds that, if breached, have the potential to threaten the insurer's financial viability and would increase monitoring of the risk and possibly trigger a recovery action. The indicators should be relevant to the business model and strategy of the insurer and integrated into the insurer's governance framework.
G – Recovery options	Details specific actions that could be taken in the event of a scenario that threatens the ongoing viability of the insurer's core business lines and/or key services, as referred to in the Strategic Analysis section, and links back to relevant recovery indicators and their limits. Potential actions should consider the following: ▪ Conserve or restore the insurer's capital and surplus through recapitalization of the insurer (which could be a capital injection but would also include actions take to reduce the risk, and hence required capital, for the business) ▪ Ensure the insurer has adequate access to liquidity to enable the insurer to be able to carry on its operations and meet its obligations as they fall due ▪ Reducing the insurer's risk profile and related solvency capital requirement under the statutory regulations or restructure of business lines and possible divestment of assets. This latter category is the part where actuaries and risk managers will be most involved, and examples include cost reduction, hedging, sale of business, reinsurance, etc. Although short-term mitigating activities may not support the long-term objectives of the company, and could lead to a reduction in potential future profits, they will at least have the desired effect of restoring the viability of the company in a stress situation. More on what types of management action are seen in practice follows later in this paper. The CBI requirements present some particularly insightful perspectives on what constitutes a sufficient level of detail that the insurer should document for each recovery option, and we return to this aspect in more detail later in the paper when considering aspects of recovery planning as part of a broader ERM program.
H – Scenario analysis	Details a range of scenarios against which recovery options have been assessed. The plan should include at least one scenario in respect to each of the following: ▪ A "system-wide scenario," which means an event that has serious negative consequences for the financial system or the real economy. ▪ An "insurer-specific scenario," which means an event that has serious negative consequences specific to the insurer. ▪ A scenario that involves a system-wide scenario and an insurer-specific scenario occurring simultaneously.
I – Communication plan	Details a communication plan that provides for internal stakeholder and external stakeholder communication of the invoked recovery plan.
J – Information on preparatory measures	Specifies any preparatory measures that the insurer considers necessary for the insurer to take to facilitate the implementation of recovery options or to improve effectiveness, and the timeline for implementing such.

Regarding the Scenario Analysis (item H), it is noted that in practice there are many examples of U.S. companies doing testing under each of the three headings specified in the CBI's requirements:

- System-wide scenarios
  - Interest rates: "Japan Scenario" (persistently low); "Early 1980s Scenario" (rapidly rising); current curve forever; reverse yield curve
  - Equities: 30% to 40% drop in equity markets
  - Repeat of 2008-2009 global financial crisis
  - Pandemic plus recession
- Insurer-specific scenarios
  - Insurance: Mortality/morbidity/lapse deterioration
  - Operational and strategic: Financial outcome of a significant data breach; bad administrative error; significant drying up of distribution channels
  - Analysis of impact of new management strategy, e.g., new product launch
- Simultaneous system-wide and insurer-specific scenarios
  - Rapid increase in credit spreads with increased policyholder lapses; call on liquidity coupled with failure of key counterparties
  - Simply moving everything the wrong way at the same time (and don't necessarily worry about ensuring consistency across risks and maintaining economic theory integrity)

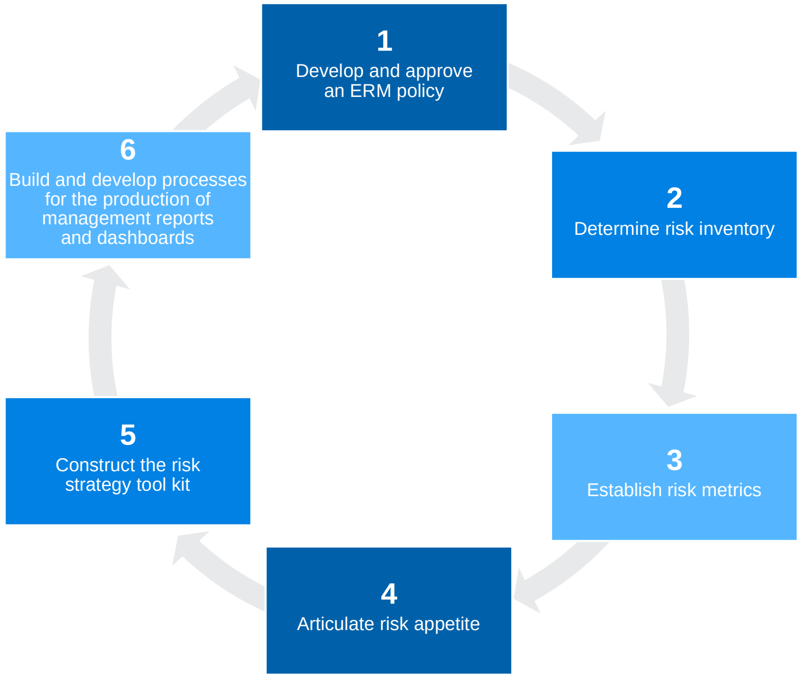
It is important to note that the above scenarios are generally used by U.S. companies to consider their resilience to such shocks, whereas for recovery planning the object of these scenarios is to ensure the company faces a recovery event and can then evaluate possible recovery options in that specific situation.

The CBI format captures a number of elements of what we would view as a best practice template for the recovery plan and provides a foundation for yielding potentially useful information that can be input to support a best practice ERM program. The remainder of this paper examines this in more detail.

Essentials of an ERM framework

Before exploring how the elements of a recovery plan could be used to support an ERM program, it is instructive to consider what would be viewed as core components of an ERM program in the first place. In summary, the key building blocks, in the order in which they would be addressed, are depicted in Figure 3. It is noted that this should be viewed as a continual and dynamic process over time, as the business develops and changes.

FIGURE 3: CORE COMPONENTS OF A CONTINUAL AND DYNAMIC ERM FRAMEWORK



Each of the six focus areas depicted in Figure 3 are discussed below.

1. **DEVELOP AND APPROVE AN ERM POLICY**

   A precursor to any ERM activity is the development of an ERM policy. It articulates the mandate for ERM, including:

   - Communication requirements, e.g., reports that should be provided to senior management and the board
   - Description of ERM resources and responsibilities
   - Specification of ERM governance aspects such as relevant committees and working groups, controls that need to be adhered to around ERM processes, and details of sign-off protocols

   The policy may also include details of the timing and responsibilities for overseeing the implementation of the policy, or any changes to the policy.

   The ERM policy should be reviewed and approved by both the executive management team and the board and revisited periodically to ensure its continued relevance.

2. **DETERMINE RISK INVENTORY**

   It is essential for the insurer's management team to understand the full spectrum of risks to which the business is exposed. The process of identifying risks will lead to the establishment of a "risk inventory" or "risk register." Flowing from that will be the classification or organization of risks leading to a "risk taxonomy."

There will be financial risks associated with the types of products being written by the company, and the underlying investments held, which are common to all writers of such business, but then also risks that are very specific to the company that are related to the insurer's operations. Thus, there will be asset, liability, operational, and emerging risks to consider.

In the United States, the newly reformed ERM Committee of the American Academy of Actuaries' Actuarial Standards Board is in the process of reviewing and consolidating Actuarial Standards of Practice (ASOPs) No. 46 and No. 47, which are specific to ERM practices, and the identification and prioritization of risk exposures has been an important topic of discussion for that committee.

After the establishment of an ERM policy, as a precursor to any other work to implement and maintain an ERM framework, the establishment of a risk inventory is a core foundational step.

3. ESTABLISH RISK METRICS

Having identified and clearly articulated the risks to which the insurer is exposed, the natural next step is to establish the risk metrics that should be measured and monitored for each risk, as well as establishing what resources are needed for monitoring the same. What are the key financial and nonfinancial lenses through which senior management wants to view and hence manage the business? Moreover, as well as looking at metrics for each risk separately, what are metrics that should be looked at to take an enterprise-wide view of risk exposure, possibly including economic capital and certainly including metrics associated with enterprise stress testing?

The establishment of relevant risk metrics is a critical part of the ERM process and some complex considerations come into play, for example:

- Some risks have key metrics that are only relevant to those risks, e.g., duration and convexity are only applicable to interest rate risk
- Some metrics are equally relevant across all risks, e.g., economic capital can be broken down and monitored at an individual risk level
- Some metrics only make sense at an overall aggregated risk level, e.g., GAAP earnings
- Some metrics are more qualitative than quantitative, e.g., operational risks are often gauged in terms of impact on reputation rather than a financial measure per se

In the United States, risk management best practices have seen increasing emphasis on tail measures of risk such as economic capital based on either a conditional tail expectation approach (along the lines of how U.S. regulators are now looking at statutory reserves and capital under a "real-world" projections approach) or a value-at-risk approach along the lines of Solvency II using a market-consistent valuation of the balance sheet under shocked conditions. Another tail metric that has gotten some attention among U.S. life insurers has been that of earnings-at-risk, which may be used as a proxy for value-at-risk in the case of fee-based business.

4. ARTICULATE RISK APPETITE

At the heart of an effective ERM program is a risk appetite statement that aligns risk with strategy and helps foster a risk culture that flows throughout the organization. The risk appetite statement will link the risk inventory and what has been established as associated metrics, by specifying limits for each key metric around which the business will be managed. The risk appetite statement may be relatively high-level, focusing on the most important risk exposures and broader corporate objectives, or it can be quite detailed. It may also state what specific processes and procedures are in place to ensure these limits are adhered to, and what actions will take place if limits are breached.

Specific to economic capital, in the United States we have seen some life companies specify a target level for actual-to-target economic capital, and in some cases actually specify this target as a "hard limit" in that breaches can lead to a specific management action being taken.

5. **CONSTRUCT THE RISK STRATEGY TOOL KIT**

   A critical part of having plans in place to address risk limit breaches, and associated management actions, is having a "risk strategy tool kit" in place to help protect the business. What are the specific approaches currently being used that could potentially be used to manage risks? How widely are insurance and reinsurance used? What strategies are used around investments? What are the other tools and techniques that might be considered as part of a full risk strategy tool kit? And, in particular, *what are the specific actions that management will take in the event of an adverse scenario?* This gets to the heart of what a recovery plan is all about.

6. **BUILD AND DEVELOP PROCESSES FOR THE PRODUCTION OF MANAGEMENT REPORTS AND DASHBOARDS**

   Risk reports are, in essence, primarily concerned with reporting to senior management on how the company is faring relative to its risk appetite, and thus should link back directly to the risk appetite statement. How is the company doing relative to its risk limits? Has the company breached any limits or is close to breach, and in such cases, what is the company doing, or planning to do, to remedy it? Best practice insurers will have in place effective risk reports and dashboards, providing information to senior management and the board that is genuinely actionable and enables strategic decisions to be made.

Clearly, many aspects of a recovery plan, as described in earlier sections of this paper, are very relevant to the various pillars of an ERM program as just described. In the next section we elaborate on how the various aspects of a recovery plan can be leveraged to support a broader ERM program, with a focus on management actions.

Linking recovery planning to broader ERM: The concept of a management action tool kit

In discussing the development of a risk strategy tool kit in the previous section, we highlighted how part of it would be to consider what management actions could be taken in the event of an adverse event and/or risk limit breach. The content of a recovery plan can be viewed as in essence the articulation of exactly this—what management will do in an adverse situation. In many ways, it could be labeled "a management action tool kit" as much as a "recovery plan," but the former implies a more strategic and internal focus.

Many insurers in the United States certainly do have expectations around what management actions may be taken in the event of an adverse event. Furthermore, for stress testing they may model the impact on the business allowing for such actions (and include the results of such in the ORSA summary report). However, from our survey of the market, it is not common for companies to have a distinct document that specifically addresses management actions and hence articulates the management action tool kit.

We would advocate that having a dedicated document that describes the management action tool kit—what actions could be taken in the event of adverse outcomes—is a best practice and should be incorporated as a core component of an ERM framework. There are a number of reasons for this perspective:

- It focuses senior management attention on the risks that the business is exposed to and how they can best be managed.
- Internal dialogue and healthy challenge around the viability of certain management actions may lead to alternative risk management strategies being put in place, e.g., additional reinsurance.
- Having such a document in place may be viewed favorably by external stakeholders, such as regulators (reference to the document could be made in the ORSA) and rating agencies.
- It gives actuaries and risk managers responsible for cash-flow testing, and other applications involving projections, something objective to back up their assumptions over management actions and thus gives more weight to those assumptions (which can sometimes be quite contentious).

The detail of a recovery plan as specified by the CBI looks to provide an excellent blueprint for what the content of a management action tool kit document may look like. A sample format for such, referencing back to the CBI requirements, is shown in the template in Figure 4. Subsequent to that, we elaborate on each topic area and possible content, and under each also indicate how the activity for that topic has linkage to the company's wider ERM program.

FIGURE 4: SAMPLE TEMPLATE FOR A MANAGEMENT ACTION TOOL KIT DOCUMENT

SECTION NUMBER	TOPIC	CORRESPONDING CBI TOPIC	CONTENT
1	**Governance**	Part D: Governance	▪ Policies and procedures around the review, update, and approval of the management action tool kit ▪ Integration into the broader governance and risk management framework ▪ Policies and procedures for timely implementation of management actions
2	**Strategic Analysis**	Part E: Strategic Analysis	▪ Insurers' products, markets, and services ▪ Operational functions and activities ▪ Financial, operational, strategic, and emerging risk exposures
3	**Management Action Triggers**	Part F: Recovery Indicators	▪ Key risk indicators and associated risk limits
4	**Management Action Options**	Part G: Recovery Options	▪ Management actions available to the insurer, with level of detail as follows: - Detailed description of the management action - An impact assessment of the management action - A feasibility assessment of the management action - Timeline for implementation of the management action and for impacts to be realized
5	**Scenario Analysis**	Part H: Scenario Analysis	▪ Assessment of the effectiveness of management actions under a variety of adverse scenarios
6	**Other**	Part I: Communication Plan and Part J: Information on Preparatory Measures	▪ Procedures for communicating information on management action plans both internally and externally ▪ Areas for improvement and specific plans to achieve such

Elaboration of what might be included in a management action tool kit document now follows, referencing each of the main headings in the above template.

TOPIC #1: GOVERNANCE

The topic area will detail the governance around management actions and references directly back to Part D of the CBI's requirements (Governance). The governance around management actions should also be linked to the broader ERM policy (and may be specifically referenced in that policy document), hence highlighting how policies around management actions are best viewed in the context of broader ERM policies.

Content:

- The insurer's policies and procedures governing the review, update, and approval of the proposed management action tool kit, including details of the circumstances under which a management action would be taken.
- A description of how the management action tool kit is integrated into the broader governance and risk management framework of the insurer, such as the ORSA, risk appetite, or business planning exercise.
- The policies and procedures in place for timely implementation of any management action, including details of the insurer's internal escalation and decision-making procedures when a limit gets breached or an event triggers a particular management action, and the roles involved in such.

TOPIC #2: RISK ASSESSMENT

The topic area would reference directly back to Part E of the CBI's requirements (Strategic Analysis). This exercise of performing a detailed strategic analysis of the insurer's business with a view to making a risk assessment would be a core part of the insurer's ERM and therefore it would be expected the content for this section of the management action tool kit document could borrow from other work already being done within the company.

Content:

- Details of product lines, geographical markets, the types of services, and information about areas of interconnectedness and reliances (e.g., risk transfer arrangements, legally binding guarantees, etc.).
- Details of the insurer's internal operations needed to provide its services.
- Flowing from the above, details of the insurer's risk exposures, including financial, operational, strategic, and emerging risks.

TOPIC #3: MANAGEMENT ACTION TRIGGER POINTS

The topic area would reference directly back to Part F of the CBI's requirements (Recovery Indicators). Similar to topic #2, the work involved under this heading—focused on establishing risk appetite and identifying risk limits where a breach could lead to a management action—will be a core part of the insurer's ERM and therefore it would be expected that the content for this section of the management action tool kit document could borrow from that work.

Content:

This topic area will detail the insurer's key risk indicators (e.g., duration for interest rate risk) and associated limits (e.g., duration gap between assets and liabilities to be kept in a band of between -0.5 and 1.5), which if breached have the potential to threaten the insurer's financial viability and would increase monitoring of the risk and possibly trigger a management action.

TOPIC #4: MANAGEMENT ACTION OPTIONS

The topic area would reference directly back to Part G of the CBI's requirements (Recovery Options) and gets to the heart of what the management action tool kit is all about: specifying the range of actions that could be taken in the event of a scenario that threatens the ongoing viability of the insurer's core business lines and key services.

A wide range of management actions may be available to the company in any given situation. Strategies may be categorized by investment-focused, product-focused, and risk mitigation-focused. Techniques commonly used by U.S. life insurers under each of these categories are highlighted in the table in Figure 5.

FIGURE 5: SAMPLE MANAGEMENT ACTION TOOL KIT

BROAD CATEGORY	MANAGEMENT STRATEGIES IN THE TOOL KIT
Investment-Focused Strategies	▪ Movement into higher-quality securities. ▪ Tightening of asset-liability duration spread. ▪ Liquidity management strategies, e.g., sale of assets to meet short-term liability needs, or tapping into a line of credit.
Product-Focused Strategies	▪ Less generous product features and in particular less guarantees. ▪ More sharing of risk between insurer and insured, e.g., registered index-linked annuities (RILAs). ▪ Incorporation of risk management into product and fund design. ▪ Payment of lower dividends to participating policyholders.
Risk Mitigation Strategies	▪ Wider use of reinsurance. ▪ Divestment of noncore businesses. ▪ The flip side of the previous point: purchase of blocks of business to achieve wider diversification. ▪ Purchase of derivatives to manage interest rate risk.
Other Strategies	▪ Capital injection from parent. ▪ Close down certain distribution channels or operations. ▪ Cost reductions more broadly.

Content:

This topic area will detail the management actions available to the insurer.

The CBI requirements present some particularly insightful perspectives on what constitutes a sufficient level of detail that the insurer should document for each management action (recovery option), and *we believe this is an area that U.S. insurers could benefit greatly from careful consideration of*. In particular, the requirements around performing detailed impact and feasibility assessments of each management action are not something we see in place currently as a common best practice among U.S. life insurers.

Specifically, each management action should include the level of detail as follows:

- A detailed description of the management action, sufficient to enable the insurer to perform an impact and feasibility assessment.
- An impact assessment of the management action, covering an assessment of the impact on the business from various perspectives including (but not limited to):
  - The statutory and GAAP balance sheets
  - The capital position of the company from various viewpoints (statutory, economic, and rating agency)
  - Liquidity
  - Profitability
  - The insurer's operations, including any impact on key services provided by the insurer
  - All key stakeholders, including policyholders, shareholders, and counterparties

  All valuation assumptions used in performing the impact assessment should be carefully documented and justified accordingly.
- A feasibility assessment of the management action, including details of the following:
  - Any risks and costs associated with implementing the management action
  - The company's prior experience of implementing the management action
  - Potential impediments to implementing the management actions and how the insurer might be able to overcome them
  - Where the management action depends on the financial support of another part of the group of which it is part, what are the plans in the event such support is not forthcoming?
- The timeline for implementation of the management action and for impacts to be realized.

In addition to looking at each management action in isolation, a holistic perspective of the tool kit should be taken, including:

- Certain management actions may be prioritized over others. Is there an order in which actions should be taken, considering areas such as ease of implementation, effectiveness in any given circumstance, and risks and costs?
- An assessment of the tool kit overall, and how some management actions may be used in tandem to address a particular issue.

TOPIC #5: SCENARIO ANALYSIS

This topic area would reference directly back to Part H of the CBI's requirements (Scenario Analysis). The intention here is to show that, under a variety of adverse scenarios, the management action tool kit can be brought to bear and ensure that financial stability can be assured and achieved within a reasonable timeframe.

Detailed and sophisticated scenario testing is already a mainstay of U.S. life insurers, and an important part of the ORSA work, so again this may be an area where other work being performed by the ERM team can be leveraged. However, it may be that scenario testing specifically with an emphasis on assessing the effectiveness of management actions is not currently performed, in which case additional testing may be needed. Furthermore, existing scenario testing may not result in sufficiently adverse scenarios to test the management actions, in which case further recalibrations may be required to ensure a management action event. In addition, coming out of the work involved under topic #5, this may identify new or amended management strategies that will need to be tested fresh against adverse scenarios.

Content:

This topic area will detail the results of the assessment of management actions under a variety of adverse scenarios. The assessment should include an analysis of the impact on the business from various perspectives similar to those described under topic #4 above (balance sheet, capital, liquidity). This section of the management action tool kit should also include the company's overall assessment of the effectiveness of its tool kit in light of the scenario analysis.

TOPIC #6: OTHER

The topic area would reference directly back to Parts I (Communication Plan) and J (Information on Preparatory Measures) of the CBI's requirements. The section of the tool kit would cover any procedural and process aspects not covered elsewhere in the tool kit document.

Content:

This topic area will include detail on the following:

- How information about management actions will be communicated to internal and external stakeholders
- Areas for improvement and specific plans to achieve such

Linking recovery planning to risk reporting

While the management action tool kit can be viewed as a strategic document that articulates and verifies actions that could be taken, there is also a link to ongoing risk reporting. A best practice ERM program should include an ongoing risk monitoring program in place, which will include the assessment of individual risks relative to their target limits and also for each indicate what management action (or recovery option) has been triggered in the event that there has been a breach.

Based on our work with U.S. life insurers around the market, and what we would view as best practices for reporting and analytics, we have developed the risk dashboard template shown in Figure 6. Something along these lines should be an invaluable tool in giving senior management a snapshot view of the state of the firm from a risk management perspective and how effective the management action tool kit is proving to be. Following the exhibit, we elaborate on the sample content shown in the template.[6]

[6] For more detail on best practices around risk reporting, see Berezovskaya A., Chen C., & Dardis A. (March 22, 2018). Enterprise Risk Reporting to Drive Management Decisions: Survey of U.S. Life and Annuity Industry Practice. Milliman Insight. Retrieved July 27, 2022, from https://us.milliman.com/en/insight/enterprise-risk-reporting-to-drive-management-decisions-survey-of-us-life-and-annuity-i.

FIGURE 6: SAMPLE FORMAT FOR AN ENTERPRISE RISK DASHBOARD

Risk Category	Risk Embracing, Avoiding and Neutral	Risk Exposure Assessment					Remedial Action (if applicable)	
		Metric	Limit or Target	Actual	Exposure	Exposure Trend	Action to be Taken	Owner
INSURANCE RISK								
Mortality / Longevity	✓	Actual to Expected Mortality	100%	96%	🟢	→	None	AD
		Required Economic Capital Attributable to Mortality	10%	9%	🟢	→	None	AD
		Growth in Embedded Value Attributable to Mortality	5%	2%	⚠️	↑	None	AD
		etc…	…	…	…	…	…	…
Morbidity	✓	Metric 1	…	…	…	…	…	…
		etc…	…	…	…	…	…	…
Lapse	✓	Metric 1	…	…	…	…	…	…
		etc…	…	…	…	…	…	…
Policyholder behavior	✓	Metric 1	…	…	…	…	…	…
		etc…	…	…	…	…	…	…
MARKET RISK								
Interest Rates	✓	Liability - Asset Duration Gap	1.2	1.9	🟡	↑	Agenda item at next ALCO meeting	AK
		Liability - Asset Convexity Gap	5	4.7	🟢	→	None	AK
		Required Economic Capital Attributable to Interest Rates	10%	14%	⚠️	↓	None	AK
		etc…	…	…	…	…	…	…
Equity	Neutral	Metric 1	…	…	…	…	…	…
		etc…	…	…	…	…	…	…
Volatility	✗	Metric 1	…	…	…	…	…	…
		etc…	…	…	…	…	…	…
FX	✗	Metric 1	…	…	…	…	…	…
		etc…	…	…	…	…	…	…
Spreads	✓	Metric 1	…	…	…	…	…	…
		etc…	…	…	…	…	…	…
CREDIT RISK								
Asset default/credit migration	✓	% assets in Below Investment Grade	5%	6%	🟢	↑	None	AB
		% assets that can be converted to cash within 30 days	10%	7%	⚠️	↑	No action for now but monitoring carefully	AB
		Required Economic Capital Attributable to Defaults/Credit Migration	15%	14%	🟢	↓	None	AB
		etc…	…	…	…	…	…	…
Derivative counterparty	✗	Metric 1	…	…	…	…	…	…
		etc…	…	…	…	…	…	…
Reinsurance counterparty	✗	Metric 1	…	…	…	…	…	…
		etc…	…	…	…	…	…	…
OPERATIONAL & STRATEGIC RISK								
Cyber Security	✗	% growth in reported incidents in past quarter	0%	4%	🔴	↑	Staff security training has been upgraded	CC
		% of employees >30 days late on security training	0%	7%	⚠️	↑	Confirmation of timely security training incorporated into staff performance reviews	CC
		Required Economic Capital Attributable to Cyber Risk	5%	3%	🟢	↓	None	CC
		etc…	…	…	…	…	…	…
Regulatory	✗	Metric 1	…	…	…	…	…	…
		etc…	…	…	…	…	…	…
Model Risk	✗	Metric 1	…	…	…	…	…	…
		etc…	…	…	…	…	…	…
TOTAL COMPANY								
All Risks Aggregated		% Growth in GAAP earnings	5%	12%	🟢	↑	None	
		Economic Capital Ratio	120%	145%	🟢	↑	None	
		Actual Statutory Capital as % RBC	450%	600%	🟢	↓	None	
		etc…	…	…	…	…	…	…

Date of most recent dashboard refresh: June 30, 2022

The risk dashboard starts with the list of identified risk exposures and their associated risk metrics, and then essentially monitors experience relative to metric targets. There may be a variety of metrics highlighted in the dashboard, either for individual risks or for all risks in aggregate, highlighting the need to manage risk through multiple financial lenses. Much of the work underlying the management action tool kit that supports risk identification and prioritization and the setting of limits will clearly be directly relevant here and can support the development of a risk dashboard.

Exposure to each key risk would typically be shown net of any risk mitigation strategies already in place, so that the color indicator genuinely alerts management at a glance to areas where remedial action is required. Including a trend indicator can also be very useful as it can help alert management to a potential adverse risk event in advance of its materializing.

Management's focus is usually directed to areas where risk status is yellow or red, or where a trend is increasing.

Best practice companies will indicate in the dashboard whether they are risk-embracing, risk-avoiding, or risk-neutral for any given category risk. As an example, for the vast majority of insurance companies taking on insurance risk is a core competency for which they are compensated and are risk-embracing, while operational risk is a clear risk-avoiding category. This helps put the dashboard into the right context, avoiding the misconception that all risk is to be avoided, which often inhibits sound business decisions.

In addition to presenting the dashboard by main categories of risk, some companies also communicate the results by the main lines of business.

The dashboard typically will include a summary of action plans and responsibility for each out-of-tolerance risk. The information in the dashboard regarding management actions will, of course, be directly supported by the management action options section of the management action tool kit (linking in turn to the recovery options section of a recovery plan).

In the sample dashboard in Figure 6, harder limits are indicated by circular traffic lights with a solid color infill, and the softer limits by triangular traffic warning signs with an exclamation mark. Articulation of hard versus soft limits is useful as not all breaches will require an immediate management action. Hard limits or tolerances are those intended to always be adhered to and should have clearly defined management actions in the event of a breach. Soft limits can serve a useful monitoring purpose but offer some leeway in the event of breach. Quite often, those companies that have clearly defined breach protocols still aim to ensure there is always an avenue for management discussion in the event of a breach. For example, a company may note a situation where there is a breach of the economic capital limit, yet all other capital metrics are within tolerance. In such a case, management may decide not to take remedial action.

The dashboard may also include the results of stress testing on certain risks, which may also be done through a variety of financial lenses and involve stresses on a variety of individual risks. For example, the impact of interest rate and/or mortality shocks on statutory and/or economic capital may be tested. This further complicates the layout of the dashboard and the stress testing results may indeed be presented by way of a separate supplementary document.

To supplement the picture shown by the summary traffic light system, companies may include a more detailed narrative that highlights limit breaches, how they have occurred, what the remedial action will be, and who has responsibility.

On first occurrence, there may be a fairly lengthy discussion of the breach, with a proposed plan of action and more frequent monitoring of the risk. In subsequent reporting periods, assuming the remedial action is working successfully, that narrative would become increasingly shorter.

The narrative would typically focus on the big changes and risk highlights during the last quarter, such as, for example, a discussion on a change in hedging strategy or a change in a particular product's risk profile.

Operational risk positions also tend to be reported more on a narrative basis rather than quantitatively, as is typical for the majority of market and insurance risks. There may also be additional qualitative lenses important to a company, such as market reputation, and again these insights are usually reported in a narrative, although some objective assessment can be made in certain areas (e.g., no adverse press/publicity, good staff retention levels). Additionally, it is increasingly common for companies to include a standing commentary specifically on the cybersecurity position in the narrative report.

Closing thoughts

In this paper, we have explored how the elements of a best practice recovery plan could be used to support an integrated ERM program. We believe that there is much useful information from a recovery plan, or at least from what would be the content of a recovery plan, that is relevant to an ERM program. In particular, redefining the recovery plan in terms of it being a management action tool kit can hint at its wider applications as a strategic document. Thus, even for U.S. life insurers, where there is no regulatory requirement to prepare a recovery plan, the practices associated with such could be a valuable component of a truly world class ERM program.

Additional references

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