

ASSET GOVERNANCE:

Guidance for Irish Pension Schemes



IAPF Investment Committee
May 2003

Important Note

This publication is designed to provide guidelines to members of the IAPF. It does not attempt to be comprehensive or to render legal advice. No responsibility can be accepted for loss occasioned to any person acting or refraining from acting as a result of any statement in this publication

Table of Contents

1	FOREWORD	2
2	ASSET GOVERNANCE – WHAT IS IT ALL ABOUT?	3
2.1	TABLE 1 – ASSET GOVERNANCE RISK FRAMEWORK	4
3	EXTERNAL RISKS	6
3.1	MARKETS FAIL TO ACHIEVE EXPECTED RETURNS	6
3.2	LEGISLATED ACTIONS	7
3.2.1	Taxation	8
3.2.2	Regulation	8
3.3	EXTERNAL GOVERNANCE	8
3.3.1	Costs	8
3.3.2	Policy of Investment Managers	9
3.3.2.1	Corporate Governance	9
3.3.2.2	Voting Policy	10
3.3.2.3	Conflicts of Interest	11
3.3.2.4	Retention of Key Staff	12
3.3.2.5	Management of Operational Risk	12
3.3.3	Policy of Consultants	13
3.4	INHERENT RISKS	14
3.4.1	Asset Allocation and Diversification	14
4	INTERNAL RISKS	16
4.1	STRATEGIC RISKS	16
4.1.1	Active versus Passive management	17
4.1.2	Style Over/Under-weights	18
4.1.3	Sector Over/Under-weights	18
4.1.4	Additional Asset Types	18
4.1.5	Peer Group versus Index Based Benchmarks	18
4.1.6	Selecting Indices	19
4.2	POOR GOVERNANCE	19
4.2.1	Compliance with the Trust Deed	20
4.2.2	Understanding / Managing Stakeholder Interests	20
4.2.3	Integrity and Ethical Values	20
4.2.4	Competence of Trustees	21
4.2.5	Trustee Board Structure	22
4.2.6	Assignment of Authority and Responsibility	22
4.2.7	Communications Strategy	24
4.3	IMPLEMENTATION RISKS	24
4.3.1	Tactical Failure	24
4.3.1.1	Portfolio Drift	24
4.3.1.2	Under Performance	25
4.3.2	Operational Failure	28
4.3.2.1	Investment Managers	29
4.3.2.2	Custodians	30
4.3.2.3	Administrators	31
4.3.2.4	Internal Operations	31



1 FOREWORD

The management and governance of pension schemes hinges on two key areas:

- Benefits (Liabilities)
- Assets

The primary risk to a defined benefit scheme is that the assets will not support the liabilities. After all, the underlying purpose of any defined benefit pension scheme is to pay current and future benefits to its members. These benefit obligations cannot be met without the appropriate level of available assets. All other investment risks associated with a scheme are ultimately just a sub-category of this primary risk. Similarly, in defined contribution schemes, the key risk, from an asset perspective, is that the assets accumulated at retirement are not sufficient in scale to purchase the expected or required level of retirement income.

The IAPF Benefits Committee has set out in the publication “Trustee Governance: Guidance for Irish Pension Schemes” a number of the principal governance issues that relate to the management of schemes. Here the intention is to develop a more detailed framework to assist Trustees in the task of asset governance. In this booklet our objective is to provide a reference point for Trustees of funds (of differing shapes and sizes) to allow them to discharge their duties in an effective manner. We recognise that every scheme is different and that Trustees themselves need to decide the issues that are important to them and how they deal with them.

As with any publication of this nature we have attempted to make it as widely applicable as possible and would appreciate any feedback that you may have in relation to either the breadth of content or the manner in which individual topics have been addressed.

Our intention is to maintain this document on the IAPF website www.iapf.ie as a living document in order that any additional questions or issues identified to us by IAPF members can be incorporated on an ongoing basis. In this regard your input or experiences will be invaluable and we invite you to email any comments to the IAPF secretariat at info@iapf.ie.

Finally, I would like to express my appreciation to the members of the IAPF’s Investment Committee for the time and effort they put into the publication of this document.

Pat Lardner
Chairman
IAPF Investment Committee



2 ASSET GOVERNANCE – WHAT IS IT ALL ABOUT?

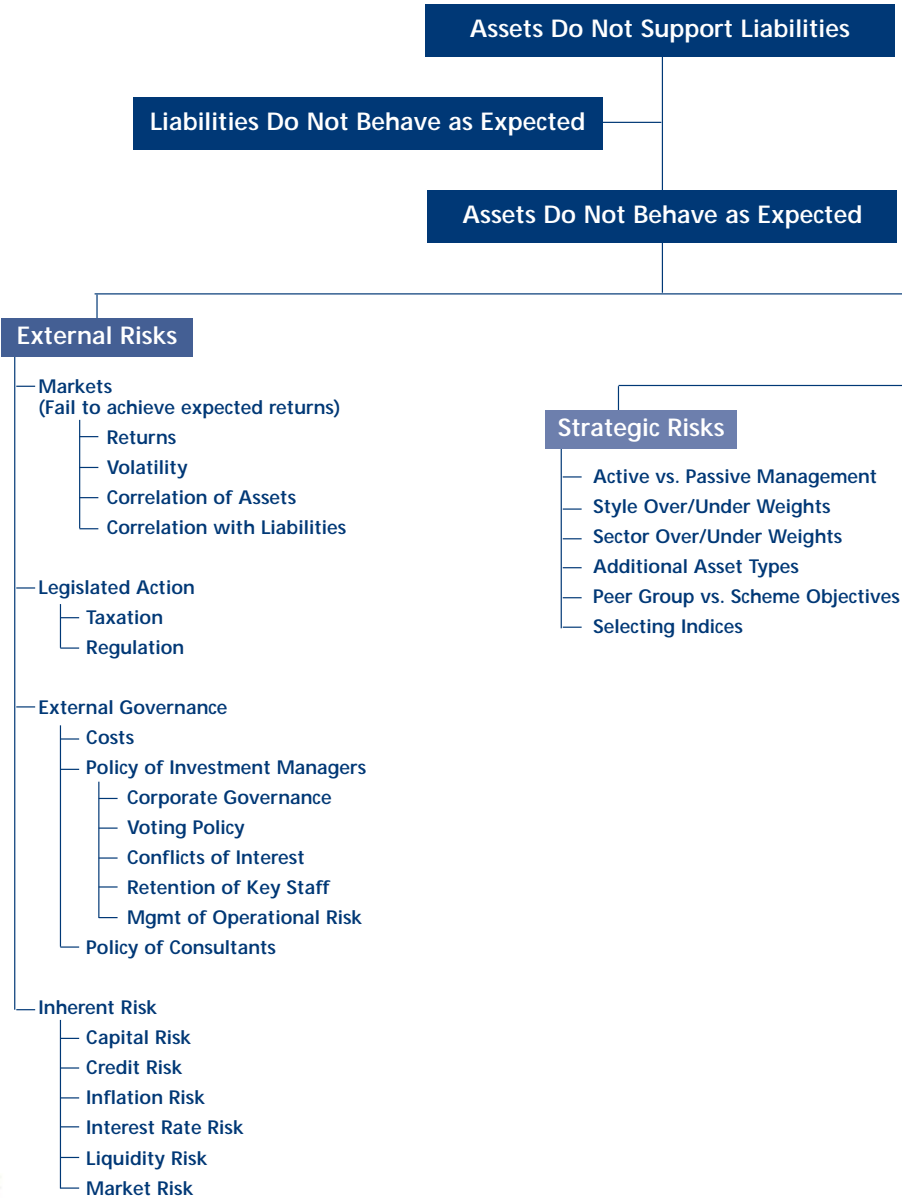
As stated in the foreword, the key risk, from an asset perspective is that the return needed to meet the liabilities is not produced due to unexpected behaviour of the investments chosen. This unexpected behaviour could result from a wide variety of factors, ranging from internal operational issues to external market forces. The “owners” of this risk vary between defined benefit schemes (sponsoring employers) and defined contribution schemes (employees). In either case, the Trustees of the scheme should have a systematic way of identifying and monitoring these risks over time.

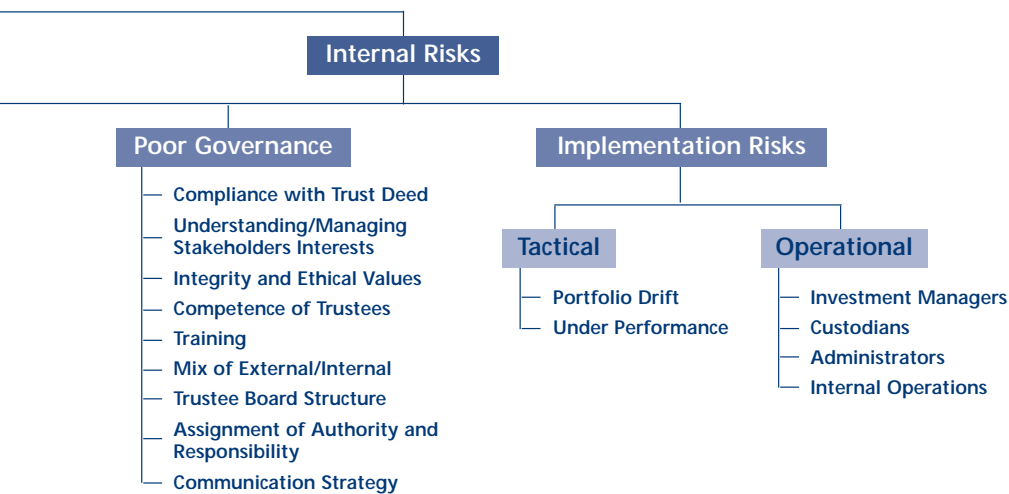
In fact, all the investment risks that could have a material effect on a scheme stem from assets not behaving as expected or planned. Therefore, all the governance items identified in this document focus on those risks that can cause assets not to behave as expected. The specific risk that may ultimately cause assets not to behave as expected can be placed into two general categories: external and internal influences.

Table 1 provides a diagrammatic representation of the various risks that good asset governance policies need to address. Throughout the rest of the document we will continually refer back to this framework. This framework is very much “top-down” in approach and the primary question is whether the actions taken by the Trustees in relation to their own fund effectively mitigate the risk and not whether they follow the examples cited in this document.



TABLE 1 ASSET GOVERNANCE - RISK FRAMEWORK





3 EXTERNAL RISKS

3.1 MARKETS FAIL TO ACHIEVE EXPECTED RETURNS

With the assumption that pension schemes are long-term investors and employ some sort of asset allocation mechanism to diversify assets, this risk is not that the actual annual returns of any given asset class will not meet the expected annual returns. In fact, it is assumed that all classes of assets will perform significantly differently than expectations over particular periods of time. Instead, this is the risk that the **long-term behaviour** of one or more of the asset types turns out to be significantly different to that expected due to unforeseen market, economic, or political factors.

These deviations from expectations may result from any or all of the following:

- The long term returns of the asset type.
- The long term volatility of the asset type.
- The asset type's correlation or behaviour in relation to other asset types.
- The behaviour of the entire asset allocation in relation to the liabilities of the plan.

Failures in base assumptions could, over time, result in a significant under funding of the scheme or mean that the amount of assets accumulated by individual members fails to achieve their retirement income objectives.

The mechanism used to effect a diversification of assets can vary from the use of broadly diversified unit fund(s) to more sophisticated modeling tools. This particular risk is intrinsic to the assets themselves and mitigated by using such factors as expected volatility¹ and correlation² in diversifying the portfolio.

Defined Benefit pension schemes use three primary vehicles to address these risks.

- **Asset Allocation Reviews**³: Periodic asset allocation reviews take a prospective approach to managing market risk by examining the appropriateness of the set of assumptions that are being used in the allocation model.
- **Long-term Performance Measurement**: This is conducted for each asset type and the portfolio as a whole. Performance measurement can be referred to as a retrospective approach to managing the risk because it evaluates the historical returns and volatility of each asset type, as well as the historical correlation among the asset types. By evaluating the historical performance numbers, market trends may be identified which could help the plan sponsor avoid long-term unexpected market behaviour.
- **Periodic Actuarial Reviews**⁴: These studies track the actual behaviour of the assets as matched against the actual behaviour of the liabilities and quantify the ongoing difference of the impact of any unexpected behaviour. If unfavourable trends develop, then the asset allocation or other factors affecting the future behaviour of the scheme (e.g., contribution rates) can be adjusted.

1 Volatility is a characteristic of a security, commodity or market to rise or fall sharply in price within a short time period.

2 Correlation is the degree to which the movements of assets or asset classes are related.

3 Asset Allocation Reviews are forward looking in that they consider assumptions about market growth and volatility in the context of the current allocation. See footnote to Actuarial Reviews to contrast.

4 Actuarial Reviews look at the actual historical experience of the assets relative to the ongoing changes in the liabilities of the scheme. There are statutory requirements (under the Pensions Act 1990) that Trustees of Defined Benefit Schemes must adhere to – refer to IAPF Benefits Committee document on Trustee Governance for more details.



In the case of *Defined Contribution Schemes*, the primary mechanism to address this risk is based on the use of projection tools, which link assumptions about retirement age and expected income to contribution rates and expected levels of return.

Further discussion of a number of these topics is contained in the recent IAPF investment publications “*The Purposeful Investor*” and “*The Pension Fund Investor*”.

3.2 LEGISLATED ACTIONS

A pension scheme is predicated on assumptions regarding long-term rates of return and the application of present value concepts to promised future benefits. Any change to the realisation or fulfillment of these assumptions by virtue of legislated action may substantially impact the financial health and economic viability of the scheme. Examples include laws that limit what asset types pension schemes may own and changes in statutory minimum benefits without considering available assets.

Another example that could seriously affect the assets of a scheme is legislation that artificially increases the interest rate assumption, with the intended effect of a reduced contribution from the employer. A shortage in the expected contributions can obviously upset the balance between assets and liabilities and ultimately cause a scheme to be under funded. The added risk of this type of legislation is that it would most likely require a higher level of investment risk be taken in order to support the new assumptions.

The key risk in any of these examples is that a radical change is made without understanding the effects on the scheme, with the attendant risks of trend chasing, confusion, and lack of long-term focus.

ACTION POINTS

- **Education:** Educating all stakeholders about the scheme is an effective mechanism for managing this risk. The more knowledgeable these groups are about the key investment concepts employed by a pension scheme the less likely they are to pursue adverse changes that may negatively affect the investment plan. This education is often accomplished through regular communications from the Scheme. In addition, other educational materials, such as the investment policy and strategy of the scheme, are often made available.
- **Legislative Liaison:** The IAPF fulfills the role of legislative liaison between members and the government (Department of Finance / Department of Social and Family Affairs) and its agencies (Revenue Commissioners / The Pensions Board). IAPF maintains both monitoring and communication processes to keep in touch with proposed legislation or other actions that may affect the assets of pension schemes. Early awareness and effective communication enables the Scheme to educate trustees, plan sponsors and members on the potential effects of the legislation before its passage.

3.2.1 Taxation

Changes in the applicable tax laws, both in Ireland and in the overseas markets in which investments are held can have an impact on the relative attractiveness of assets held within the scheme. Trustees should ensure that they (through their advisors) are availing of all available reliefs at source and additionally that they are clear on the extent to which taxes are recoverable. Changes in the Irish budget can have an impact on pension fund investment, for example the recently announced increase in stamp duty on commercial property from 6% to 9%.

3.2.2 Regulation

Prior to the lifting of exchange controls in the late 1980's, Irish pension schemes were restricted in the amount of geographic and sectoral diversification they could employ in managing the assets. Thankfully, there is little regulation on what schemes can and cannot do, provided the Trustees fulfill their responsibilities in accordance with Trust law and pensions legislation.

3.3 EXTERNAL GOVERNANCE

Given that there are many things happening concurrently within a pension scheme, it is important that Trustees are both aware of the risks associated with poor governance of external matters in the context of assets performing differently than expected.

ACTION POINTS

Trustees should give consideration to external events and issues, deciding firstly, if they are of importance/relevance to them and secondly, whether they need to take action or decide on a specific policy stance.

3.3.1 Costs

A variety of costs arise in the management of a scheme and Trustees should have a clear understanding of the costs of managing the scheme and the extent to which these impact on the available assets. Advisors should regularly disclose the basis of remuneration they receive and Trustees should review these periodically to ensure that they are consistent with the members' best interests. This applies to all types of advisors, including:

- Investment Managers
- Custodians
- Consultants
- Administrators
- Auditors



ACTION POINTS

In the context of investment management fees, the Irish Association of Investment Managers (IAIM) Cost Disclosure Code is relevant as it becomes operative in July of 2003. Refer to www.iaim.ie for details.

3.3.2 Policy of Investment Managers

Each of the advisors to the scheme, and in particular the investment manager(s), should have clear policies in relation to issues that may have an impact on the value of the assets of the scheme. While many of these may be encompassed within a formal management agreement, it is important that Trustees do not make assumptions. Below we highlight a number of areas where Trustees should familiarise themselves with the operating policies of their manager(s).

3.3.2.1 Corporate Governance

While there are many definitions of Corporate Governance, two of the better ones are:

“Corporate governance is the system by which business corporations are directed and controlled. The corporate governance structure specifies the distribution of rights and responsibilities among different participants in the corporation, such as, the board, managers, shareholders and other stakeholders, and spells out the rules and procedures for making decisions on corporate affairs. By doing this, it also provides the structure through which the company objectives are set, and the means of attaining those objectives and monitoring performance”. OECD

“Corporate governance is about promoting corporate fairness, transparency and accountability” J. Wolfensohn, former president of the World Bank

The incidence of scandals in a number of high profile corporations in recent times (where there was cause for concern as to whether the best interests of shareholders were being protected) highlights this as an area of relevance to Trustees. If poor corporate governance impacts on the value of assets within the scheme then this is a potential risk for the provision of benefits to members.

ACTION POINTS

The area of Corporate Governance is one of increasing focus and Trustees should be clear in their own minds as to what definition and scope they wish to use in discharging their own responsibilities.

Some questions for Trustees:

- Do the Trustees understand their responsibility with respect to Governance issues?
- Has the Trustee Board or a Sub-committee of the Board been assigned responsibility for monitoring Governance risks?
- Is the mix of acumen & training of Trustees adequate to deal with these issues?
- What expectations are set in the Guidelines (Statement of Investment Principles and Objectives) for Investment Managers with respect to Corporate Governance?

As regards advisors, a high level question is whether the advisors themselves have internal policies for dealing with:

- Governance issues within their own firms
- Governance issues within the underlying investments held within the portfolio(s) they manage on the Trustees behalf.

Can they prove / provide records of compliance with their stated principles? In the sections below we expand on a number of specific areas for attention.

3.3.2.2 Voting Policy

When investing in publicly quoted equities, the Trustees effectively buy a share in an individual company. As such it is in their interests to ensure that the companies held operate to the highest standards in a way that produces a satisfactory financial return. An important mechanism for registering approval or otherwise of what companies propose by way of resolutions at either Annual General Meetings (AGMs) or Extraordinary General Meetings (EGMs) is through the exercise of the voting rights that attach to share ownership.

The power to vote is typically delegated to the investment manager(s) of the scheme's assets and therefore Trustees should familiarise themselves with the policy of the managers they employ and whether this is consistent with their own objectives or priorities. It should be noted that in some cases, Trustees might not be able to vote to their own specific wishes – this is predominantly the case where they hold units in a fund rather than direct assets.



ACTION POINTS

To assist Trustees in this area, we list below a number of relevant questions that can be directed to fund managers on the area of voting.

- What expectations are set in the Guidelines (Statement of Investment Principles and Objectives) for Investment Managers with respect to Corporate Governance?
- What internal policy or guidelines do the Managers have for monitoring Corporate Governance?
- What is the process for exercising voting rights?
- What is the nature and focus of the Manager's Research Capabilities? For example:
 - What information does the Manager gather on Companies?
 - What "Governance" information is tracked from other sources?
 - Is the Regulatory environment of the Company understood and tracked?
 - What disclosures are required and tracked?
 - Does the reward system within the manager reflect expectations with respect to monitoring Corporate Governance?
 - What processes are in place for capturing and communicating Governance concerns/issues to internal control functions, investee companies and to Trustees?
 - What sources of intelligence are used?
 - What systems are in place for tracking?
 - What evidence is there that the Manager has acted on Governance concerns in the past?
 - What is the Manager's track record with respect to investee companies?
 - When was Corporate Governance process and practice last reviewed?

3.3.2.3 Conflicts of Interest

The assets of the scheme (and the underlying performance) should not be compromised by potential conflicts of interest that arise within the operations of service providers to the Scheme. Usually conflicts of interest are dealt with as a specific provision within service contracts. Particular areas where Trustees should ensure they are satisfied with the control of conflicts include:

- Situations where service providers utilise the products/services of other companies within the same overall group or those with whom they have other joint venture/commercial relationships. This includes:
 - Stock-broking dealings
 - Corporate Finance dealings - e.g. where an investment management subsidiary holds assets on the Trustees' behalf and a corporate finance department within

- the overall company is advising on a transaction that could impact the value of the investment.
- Placing of Foreign Exchange trades
 - Placing deposits or other money market instruments

3.3.2.4 Retention of Key Staff

Service providers to schemes work within knowledge-based industries and the maintenance and retention of key staff is an important element of their respective abilities to give advice and provide services that ensure that the overall objective of having sufficient assets to meet the liabilities are met.

Asset managers are employed by a scheme to produce returns against a specific objective, in furtherance of the overall goal of meeting the future liabilities of the plan. As people are an important part of the process of managing assets (to a greater or lesser extent, depending on the style) then a key external governance risk is that the managers employed retain sufficient skill and expertise to complete the task assigned to them. This extends to succession planning as well as retention.

ACTION POINTS

Trustees should be aware of the key individuals within the companies providing services and ensure that they are appraised of changes. In addition, Trustees should be aware of the mechanisms that service providers use to retain key staff as well as details of succession plans for key staff.

3.3.2.5 Management of Operational Risk

Given the sums of money involved and the time critical nature of correct processing Trustees should also be aware of the approach taken by their various services providers in relation to matters of operational risk.

Managing such risk is becoming an important feature of sound risk management practice in modern financial markets. The most important types of operational risk involve breakdowns in internal controls and corporate governance. Such breakdowns can lead to financial losses through error, fraud, or failure to perform in a timely manner. This may cause the interests of the Trustees to be compromised in some way, for example, by staff within suppliers exceeding their authority or conducting business in an unethical or risky manner. Other aspects of operational risk include major failure of information technology systems or events such as major fires or other disasters.

ACTION POINTS

Questions for Trustees to put to service providers are:

- What are the areas in which operational risks exist and how are these risks managed and monitored?
- Who is responsible for operational risk management?
- What exists in terms of contingency/disaster recovery facilities?

These matters can be raised at meetings with service providers but it may also be useful for Trustees to conduct site-visits to meet with the personnel involved in managing these risks.

3.3.3 Policy of Consultants

Given the role that pension consultants play in advising trustees regarding pension assets, it is important that Trustees are clear as to the way in which the consultant operates. Many of the areas highlighted here are consistent with those mentioned in the previous section in relation to investment managers. Below we summarise a series of questions that Trustees can pose to their consultants:

ACTION POINTS

- Who are the key people responsible for and what are the key methodologies used in advising on investment strategy? What are their credentials for doing so and what tools do they use to formulate advice-based strategies? How are key individuals retained within the firm?
- What resources are brought to bear in researching and recommending particular investment solutions or providers? How often is research updated? By whom?
- Where mathematical models are used that rely on assumptions, how have these been tested/validated?
- What is the firm's competitive advantage?
- How does the firm judge the success of its advice to clients?
- Within the firm, what are the principles / policies that cover:
 - Corporate Governance
 - Management of Operational Risk / Contingency
 - Integrity of Advice
 - Cost Disclosure
 - Conflicts of Interest
- How does the remuneration policy reinforce the provision of impartial/best advice to the client?



3.4 INHERENT RISKS

All investments are subject to one or more types of inherent risk. It is expected and necessary to assume some level of risk in order to achieve needed returns. For example, some of the inherent risks are as follows:

- **Capital Risk** - The risk of losing the original investment.
- **Credit Risk** - The risk that the issuer will not make scheduled payments.
- **Inflation Risk** - The risk that the investment will return below the rate of inflation.
- **Interest Rate Risk** - The risk that changes in interest rates will decrease values.
- **Liquidity Risk** - The risk that the investment cannot be readily converted to cash at prevailing or assumed prices.
- **Market Risk** - The risk that adverse market shifts will cause losses.

ACTION POINTS

As indicated, these risks are inherently present and are usually knowingly assumed when investing. Usually, they cannot be avoided; however, one way to mitigate these risks is by utilising the principle of diversification. This way, for example, if one company or industry falters, the threat to the overall fund will be minimised.

3.4.1 Asset Allocation and Diversification

An asset allocation policy sets targets and ranges for asset classes, thereby diversifying the portfolio among unrelated investments. The asset allocation process considers three major factors: expected return, expected risk, and correlation. From there, a fund may require diversification within those asset classes for management styles (e.g., active v. passive) and sectors or industries. Within sectors or styles, a fund may further diversify and set limits by company, issuer, manager, or counter-party.

Action Points – Defined Contribution Schemes

For defined contribution plans that invest through pre-existing unitised funds, the Trustees should be aware of the scope and latitude allowed to the investment manager within each of the funds used. This should include but not be confined to marketing documentation. Investment managers should clearly lay out the permissible investments and any “house” ranges or constraints they work within. This will help ensure that there is appropriate diversification both within and across the fund choices available to members.



It is important to examine diversification from a total portfolio perspective. The total portfolio must be diversified but each component part or individual portfolio may exhibit different levels of diversification. This is relevant in situations where the Trustees employ multiple investment managers with specific investment briefs. In fact, some types of diversification within parts of the portfolio may be counterproductive in the context of the entire portfolio. For example, diversification into corporate bonds may be desirable, but not if it leads to large exposures to particular issuers when both equity and bond positions are maintained simultaneously.

Further discussion of inherent risks and diversification is included in the forthcoming IAPF publication "*Pension Fund Investment Management*" (June 2003)



4 INTERNAL RISKS

In order to satisfactorily deal with external risks that exist, Trustees must ensure that they have consciously managed the risks that are internal to the Pension Scheme and operation of the Trustee Board.

4.1 Strategic Risks

In section 3.4 we highlighted that diversification is important in managing the inherent risks of being invested in financial markets. Here, where we refer to strategic risks, we focus on layers of Trustee decision-making and oversight that have an ultimate bearing on the performance of the assets of the scheme.

Trustees have a variety of decisions to make. In many cases the levels of sophistication required are linked to the type of the scheme (Defined Benefit or Defined Contribution), the size of the scheme assets and the extent to which the nature of the liabilities change or alter over time.

For *Defined Benefit Schemes*, strategic decisions, as they pertain to pension plans, can be defined as decisions, usually made by the board, to adopt particular objectives and policy benchmarks. For example, assume a pension fund employs a simplified asset allocation model of 60% equities, 40% fixed income and adopts the FTSE World Index and Merrill Lynch Euro Govt. > 5 year Index, respectively, as the policy benchmarks for this base allocation. This fund could meet its asset allocation objective and policy benchmarks by simply indexing the appropriate percentage of all its funds into the FTSE World Index and Merrill Lynch Euro Govt. > 5 year Index.

Using this strategy, the risk of not achieving the policy benchmark returns less transaction costs, would be minimal, almost non-existent. However, any decision to move away from this strategy increases the risk that returns will not meet the returns of the policy benchmark, which may ultimately result in assets not meeting the expected long-term performance assumptions. Examples include decisions to overweight or underweight particular styles (e.g., a bias toward a value or growth style in equities), and sectors or regions (e.g., underweight a particular country in an international equity portfolio). Despite the risk involved in moving away from policy benchmarks, most schemes take actions to deviate from the policy for the simple reason that they believe the rewards of achieving incremental return exceed the incremental risk of performing below benchmark returns.

Another issue is a potential flaw in the underlying benchmarks themselves. No benchmark is a perfect reflection of the underlying general market. Even the S&P 500, often used as a reflection of large U.S. stocks, has substantial international exposure. Potential problems in this area are magnified as the indices being used to replicate markets which are less liquid and more inefficient (such as international emerging markets) are utilised. While over longer periods of time these differences in performance may become less significant; they are an area of potential concern over shorter time periods.



For *Defined Contribution plans*, the Trustees' objective is to make available a range of investment choices that allow members the flexibility to adopt differing levels of risk, in exchange for an expectation of returns over the longer term. A key trade-off relates to the breadth of investment alternatives available to members, as against less effective decision-making due to complexity or lack of knowledge. Trustees should assess, over time, the extent to which the investment alternatives available to members are meeting their communal retirement needs.

ACTION POINTS

Manage the Risk:

- *Defined Benefit Schemes*: Ultimately, most Schemes do not choose to avoid the risk associated with strategic decisions. Instead, they elect to manage the risk. Managing the risk begins with clearly defining the policy benchmarks established for the fund and the acceptable level of deviation from these established benchmarks. Some Schemes establish benchmarks at the strategic level as well as the policy level. Benchmarks may be further defined at the specific manager level. Regardless of the number of benchmarks established on different levels, normally they are clearly defined and should, when combined, deliver the overall policy benchmarks.
- *Defined Contribution Schemes*: as the membership of the scheme changes/matures, Trustees should ensure that they have an appropriate choice of investment options for members, while maintaining appropriate communication.

4.1.1 Active versus Passive management

While there are inherent risks involved with investing in securities markets (whether active or passive), the Trustees should consider the extent to which they wish to utilise either approach. This is also relevant to Trustees of DC Schemes who may wish to include both active and passive options for members.

ACTION POINTS

Please refer to the IAPF Publication "*Pension Fund Investment Management*" for a greater explanation of the characteristics of active and passive management.

4.1.2 Style Over/Under-weights

A number of investment styles (active management) have been identified by both asset managers and benefit consultants - Trustees should be aware of the style(s) they are implicitly utilising in hiring manager(s).

4.1.3 Sector Over/Under-weights

Where Trustees set benchmarks that incorporate specific weightings to sectors (historically this related to geographic regions), they need to be cognisant of any consequential risks these may bring. For example, certain geographic market regions have natural biases towards specific industrial sectors. This could result in the portfolio having potentially unintended emphases. In addition, allocations to "non-domestic" regions naturally include currency exposures and Trustees should be clear on the risks these entail, as well as the action(s) they expect the appointed manager(s) to take to mitigate these risks.

4.1.4 Additional Asset Types

In order to match the liabilities of the Scheme, a number of asset types are available to them. Most of this document refers to the "traditional" asset classes (equities, bonds, property and cash). There are benefits (in terms of additional diversification) to be derived from using other asset types or vehicles (Venture Capital, Hedge Funds etc.). Trustees should consider the potential benefits and risks associated with these investments on a stand-alone basis as well as how they might/should integrate within the overall scheme's structure.

4.1.5 Peer Group versus Index Based Benchmarks

While achieving the objective of supporting the liabilities ultimately depends on producing an absolute level of return from the assets, typically the performance of the manager(s) retained by the Trustees are measured relative to a benchmark.

Historically, in Ireland, performance benchmarks that referred to a universe of competing managers (peer group) have been the norm for many schemes. There is clear evidence in recent years that there is a greater emphasis on benchmarks that consist of comparisons to one or more market indices. Trustees need to decide which they believe is most appropriate.

For defined contribution schemes, Trustees should identify whether the unit fund(s) being used are managed versus a peer group or versus one or more indices. This will allow clearer comparison of the results achieved and help to identify if the objective of the unit fund (over which individual schemes have no control) is consistent with the objectives of the members.



ACTION POINTS

Trustee boards should be clear as to the benchmark being used (peer group or index). They should also consider the appropriateness of the chosen benchmark for their needs and review it on a periodic basis.

4.1.6 Selecting Indices

Every benchmark has risk, but it should not be assumed that every index contains the same risks. As mentioned earlier, the S&P 500 is a well-recognised index of large US companies. Until recently, the S&P 500 constituents also included a number of large non-US companies (Royal Dutch Shell and Unilever are examples). If the portfolio structure also contained a separate segment to be measured against a broadly based index of European shares then the potential for “double-counting” exists.

At a higher level, many people are familiar with the fact that in the late 1980's Japan accounted for over 50% of many of the well-known world equity indices. While this accurately reflected Japan's share in terms of market capitalisation at that time, it can be seen that the index of choice can result in large exposures to particular regions, industry sectors or indeed stocks.

ACTION POINTS

Where Trustees are selecting the indices that will make up a benchmark (for either active or passive management), they should devote time to understanding the nature of the index and the implicit risks within it.

4.2 POOR GOVERNANCE

Governance risk, in this context, refers to the risk that the Trustees, staff, or agents of a pension scheme will, either intentionally or unintentionally through their management actions or lack thereof, cause the assets of the Scheme to under perform expectations. Agents of a pension scheme include external consultants, money managers, auditors, actuaries and legal counsel. Characteristics of poor governance may include incompetence, poorly or improperly defined roles, poor communications, failure to meet fiduciary responsibilities, lack of ethical standards and inconsistency.

ACTION POINTS

The focus here is the control environment, which is the foundation for the entire internal control scheme within the organisation. The control environment defines the character of the organisation and affects the attitudes of all individuals towards governance and control. It consists of several elements including: integrity and ethical values, competence, a qualified board of Trustees and pensions staff, a rational organisational structure and proper assignment of authority and responsibility. Without this foundation, other components of the control scheme often fail.

4.2.1 Compliance with the Trust Deed

The Trust Deed of the Scheme sets out the basis of the fiduciary responsibility of the Board and empowers them to make decisions regarding the investment of the assets. As such, Trustees should ensure that they are aware of the powers conferred upon them within the deed, the extent to which this power can be delegated and any limitations they must take into account.

4.2.2 Understanding / Managing Stakeholder Interests

While the Trustees must primarily be concerned with protecting the interests of members they also need to be aware of the other stakeholders and ensure there is appropriate time and consideration given to their possible concerns. These stakeholders include the local sponsoring employer, regulators and trade union or labour representation groups.

4.2.3 Integrity and Ethical Values

ACTION POINTS

- **Code of Ethics:** pension schemes sometimes develop and adopt their own code of ethics to address the need for ethical standards within the organisation. Others may recognize a more general set of ethics from other sources. Some schemes may not officially “adopt” a code of ethics but may address many of the ethical issues in personnel manuals, Trustee handbooks and other internal policies and documents.
- **Fiduciary Responsibility:** Good governance of pension schemes also includes the understanding of fiduciary responsibilities by Trustee boards, staff and agents of the scheme. For most boards, fiduciary responsibilities are defined and imposed through law and regulations pertaining to the scheme.



- Mission statements, plan documents and other internal documents may further define the fiduciary responsibility of the board. In the case of agents to the scheme, their fiduciary responsibilities are normally defined and acknowledged in writing. This is usually accomplished through legal contracts and written agreements between the scheme and its agents.
- The future retirement benefits provided by the scheme are important to members but there can be a low level of either interest or understanding amongst the scheme population in respect of pension matters. Therefore, any steps that the Trustees can take to ensure there is open and full disclosure of pension matters to the membership will increase the recognition of the scheme and ultimately the governance of it.

4.2.4 Competence of Trustees

The responsibilities of Trustees are both important and onerous. This requires the members of the board to be competent in the discharge of their duties. This is complicated by the fact that many Trustees have “day jobs” and in many cases may be new to the large number of concepts and terms that are part of the management of a pension scheme.

ACTION POINTS

- **Training:** A core method to help ensure the competence of staff and Trustees is to provide an appropriate induction for new board members and pensions staff and continuing education for all board members and staff. New board members are often initially educated through an induction process and receive on-going education by attending appropriate conferences and seminars. IAPF run a number of conferences and evening meetings to address issues of concern to Trustees. In addition, portions of Trustee meetings can be used to further educate the board on investment related issues.
- **Outside Experts:** Another method of managing the risk of poor governance is by hiring outside experts. Most schemes rely on outside experts such as actuaries, solicitors, auditors and consultants. A structured and methodical evaluation process, often involving the advice of consultants, is often used to ensure the competence of agents hired by pension schemes. In addition, other agents of the same profession may be hired to periodically review the work of the agent retained by the pension scheme.

Every pension scheme is different and therefore, the structure and composition of the board (in terms of skills/knowledge) should reflect the complexity of the liabilities and asset structure. Often there are periods of significant change within a scheme and it is during these periods, in particular, when the Trustees should ensure they are equipped to make the necessary decisions.

In some cases, an external Trustee (someone who has no link to the plan via membership) can be used:

- as a source of knowledge or experience or
- to perform a specific role (e.g. Chairman of the Board or sub-committee)

Such expertise can be accessed directly through individuals of suitable qualification or firms offering Trusteeship as a commercial activity.

4.2.5 Trustee Board Structure

The larger the number and complexity of the issues faced by the Trustees, the greater the potential benefit of segmenting responsibility amongst smaller (possibly expert) groups who have defined terms of reference from the overall board. A typical example is where an investment sub-committee is established to select or oversee managers, reporting back to the full board or where research or consideration needs to be given to a policy or tactical switch. It is important to note that in many cases, where sub-committees are established, they need not be comprised solely of Trustees.

ACTION POINTS

- Good governance of a pension scheme usually begins with a competent governing board. Organisational structures will vary among pension schemes, depending upon their approach. Regardless of the approach, the structure should be clearly defined and key positions identified. When dealing with large-scale or complex issues, the board should assess the best support structures to achieve their objectives
- For more details please refer to "Trustee Governance: Guidelines for Irish Pension Schemes", published by the IAPF Benefits Committee.

4.2.6 Assignment of Authority and Responsibility

It is essential that the Trustees are clear about the nature and level of discretion they have given to advisors. Any lack of clarity in this area can lead to assumptions being made in relation to who is carrying out a particular function or activity.



Another practice used to reduce the risk of poor governance is the development and adoption of written policy statements. The extent to which these are required may be a function of the scheme type and structure. For example, a defined contribution scheme employing a single manager and a specific unitised fund vehicle will have different requirements to a defined benefit scheme employing multiple managers to manage segregated portfolios of assets against very specialist benchmarks.

ACTION POINTS

Irrespective of scheme size and structure, a statement of investment policy is a central tenet of good asset governance.

Investment policy statements can address some or all of the following issues:

- **Legal and Statutory Framework:** Sole Interest of Beneficiaries, Prudence Standards, Fiduciary Duty
- **Investment Goals:** General Return Goals, Specific Risk and Return Objectives, Risk Tolerance, Identification of Liabilities, Asset Allocation Procedures and Principles, Allocations, Limits and Rebalancing
- **Investment Structure:** Overall Standards, Direct Board Responsibilities, Delegated Board Functions, Employees, Consultants, Advisors, Asset Managers, Custodians and other Support Groups, Standards for Selection, Fees, Procedure for Selection, Monitoring and Review Procedures, Risk Controls, Policies and Procedures
- **Asset Class Policies:** Objectives, Allowable Investments, Prohibited Activities, Benchmarks, Derivatives
- **Other Policies:** Proxy Voting, Corporate Governance Policies, Ethics, Disclosures, Soft Commission⁵, Securities Lending⁶, Personnel, etc.

Written and approved policy statements serve as an educational tool for new board members and help ensure seamless transitions during board turnover. In addition, having written and approved policy statements in place helps prevent sudden inappropriate changes to the investment plan in reaction to temporary or transient events.

5 Soft Commissions : Soft Commission arrangements exist where an investment manager receives goods or services from a stock-brokerage in return for executing transactions with that broker. Under the provisions of the Central Bank of Ireland's "Handbook for Investment and Stockbroking firms", any such arrangements must be notified to clients annually.

6 Securities Lending : service that allows pension funds to temporarily lend stock that they hold within portfolios for payment.

4.2.7 Communications Strategy

Communication with the members, beneficiaries and other stakeholders is a core part of managing risk. This is particularly the case in Defined Contribution schemes where the members ultimately suffer the consequences if the assets accumulated at retirement are insufficient to secure an appropriate retirement income. In periods of volatility in the assets, it is important that the Trustees have a role to play in communicating with the membership, whether it is to quell concerns that people may have or to prompt action.

ACTION POINTS

Trustees should consider the communications strategy that is appropriate for their scheme. In addition, changes to the scheme, or the action required by members/beneficiaries should be well flagged.

4.3 IMPLEMENTATION RISKS

These are the risks that policies and procedures may not be implemented properly. Pension schemes may develop and adopt the ideal asset/liability mix, asset allocation model, and investment policies and strategies, but if staff or agents of the scheme do not effectively implement the mix and strategies, then assets may ultimately fail to support the liabilities generated by the scheme. Causes of ineffective implementation fall into two general categories: tactical failure and operational failure. Implementation risk and common practices to address the risk are discussed below in terms of these two general categories.

4.3.1 Tactical Failure

Two general sources of tactical failure may prevent a pension scheme from achieving the benefits that would accrue from following its long-term investment strategy. First is the risk that the actual allocation of assets does not conform to the asset allocation strategy. Second is the risk that the actual return experienced through investment in specific assets does not meet the returns of the asset classes of which they are a part.

4.3.1.1 Portfolio Drift

For various reasons, a defined benefit scheme utilising specific benchmarks may not follow the underlying asset allocation defined in its investment plan. Due to market movements the assets may shift. Particularly after a significant change in the market, a fund may remain in this position for a prolonged period of time and, as a result, realise returns far below that expected from the policy asset allocation. As discussed below, the primary discipline used to address this concern is the process of rebalancing. This is also relevant where the overall



structure is achieved via allocations to multiple unit funds. The combination of market movements and the way in which contributions are allocated between the underlying unit funds may result in funds moving away from their “ideal” positioning.

ACTION POINTS

The primary discipline used here is an expressed rebalancing procedure. For example, many schemes incorporate ranges around an expressed policy asset allocation that, when violated, will trigger either a direct reallocation of assets to more closely align with the policy asset allocation or trigger a review of conditions to determine whether a rebalancing of assets should occur. As part of this process, most schemes will include a direct comparison of the actual allocation with the policy allocation, with associated ranges, in the formal board reports.

4.3.1.2 Under Performance

Three types of tactical decisions may cause the actual returns of specific assets to under perform the asset class of which they are a part. First, as discussed above, strategic decisions may be undertaken; second, the actual allocation of assets to managers or accounts may not reflect the strategic allocations, which creates a misfit between the individual account benchmarks and the overall strategic objective, and third, the managers may under perform the asset class.

Strategic Decisions: The risks associated with strategic decisions discussed above may be the result of decisions to:

- Add asset types not included in the underlying asset classes (e.g., private equity, private debt or emerging markets).
- Tilt the characteristics of an asset class (e.g., more or less small capitalization stocks).
- Take actions to try to reduce risk (e.g., hedging international currency risk).

Manager Misfit: The scheme may hire the wrong manager or type of manager to fulfill a particular segment of the asset allocation strategy. For example, a manager is hired to implement a strategic decision of overweighting value stocks and the manager turns out to be a growth manager. Another example would be where a manager is given a particular benchmark and that benchmark does not reflect the segment of the asset allocation strategy for which it was intended (Benchmark Misfit).

Manager Under Performance: The manager(s) hired by a pension scheme to actively attempt to gain returns higher than those available by passively investing in the markets themselves may under perform the asset class. The actual returns could be significantly different, and lower, than those in the general market due to the manager's investment decisions.

A pension scheme may hire three general types of managers to manage funds: managers of publicly traded securities, managers of private equity and debt and managers of derivative securities.

- **Managers of Publicly Traded Securities:** pension schemes often hire active managers to manage publicly quoted and private investments. These managers are hired to outperform the alternative passive investment. This adds another level of potential disparity, and risk, in achieving the desired long-term returns: the difference in performance and results of the active managers from that achieved by the passive alternative investment in that asset type. In particular, it could lead to substantial under performance over a period of time from that contemplated by the underlying investment strategy.

This risk could arise in four ways: First, the active managers could be true to their style or discipline, but the results of that style or discipline could have unintended consequences (such as performance significantly different to the benchmark used for that manager). Second, the actual benchmark used, when combined with other similar managers or accounts, does not fit the profile of the overall strategic objective or benchmark for that portion of the fund. Third, managers could drift from their particular style when making individual investment decisions and thereby, achieve returns that are different, and lower, than that of the benchmark they were assigned. A fourth way is through operational failure and is discussed later.

Unlike the long-term nature of the asset allocation and strategic policy risks, the impact on the value of the portfolio as a result of adverse events due to an individual manager's investment activities can occur relatively quickly, sometimes in a matter of days or weeks. Unusual market conditions could invalidate a manager's underlying assumptions by which they choose stocks, bonds, or other individual investments. This "quicker" pace of adverse valuation consequences usually affects only those managers who deal in the public markets, with its liquidity and daily pricing. Private investment portfolios usually have a more leisurely time frame for recognising changes in valuation, as discussed in the next section.

- **Managers of Private Equity and Debt:** Investments in private equities, private real estate, and private commercial mortgages will most likely go awry at a slower pace. This usually happens over periods of months, not days, since the underlying investments in companies or properties are not valued as frequently.
- **Managers of Derivative Securities:** Typically, pension schemes do not have significant exposure to derivative instruments that could swiftly change the risk profile of the fund. Many derivative exposures are simple and direct substitutes for the underlying instrument. For example, the use of certain futures and forwards markets, such as the S&P 500 Futures Market, is practically interchangeable for holdings in the underlying security or securities. As a result, the risk management procedures for managers with publicly traded portfolios would suffice for tracking those positions if they could materially impact the portfolio.



The concern is with exotic instruments that have express or hidden leverage features or significant elements of optionality. These features could make the standard characteristic measurements (such as duration, beta, etc.) inapplicable for large market moves or, through express or implied leverage, result in a cascading effect from relatively small or marginal market moves. The task for a pension scheme is to determine if those types of instruments are in the portfolio and, if they are, whether the aggregate exposure to the overall portfolio is such that additional and more detailed tracking mechanisms and other risk control measures are required.

Manager Selection:

ACTION POINTS

Concentrate on hiring quality managers and then monitoring three factors: people, process, and performance. Monitoring should occur on an ongoing basis or through separate periodic evaluations (see below for more details on each).

- **Due Diligence in Hiring:** As it relates to fund managers, risk management begins with the good hiring practices. Internationally, many large pension schemes have a formalized due diligence process in place to determine external manager candidates that will incorporate the desired investment styles and disciplines to meet the objectives of the scheme's strategies. This process often includes the use of an independent investment consultant to assist in the search for managers that meet the criteria established by the scheme. The hiring process also usually includes the development of a contract that includes guidelines for the management of the specific portfolio. The guidelines usually include language that addresses:
 - The objective of the portfolio;
 - The benchmark the portfolio will be measured against;
 - The desired characteristics of the portfolio; and
 - The allowable, and possibly prohibited investments for the portfolio.

Guidelines help to further ensure that the managers adhere to the strategy and discipline for which they were hired.

ACTION POINTS

The IAPF has previously published guidelines on Investment Management Agreements and these should be referred to for more in-depth discussion of these issues.

- **People:** Many schemes also meet face-to-face on a periodic basis with the investment manager(s). These meetings are generally conducted by the Trustees, internal pensions staff or the external asset consultant (or some combination). These meetings provide the scheme with a better understanding of the day-to-day operations of the manager and the manager's business continuity, including resources and staff turnover.

- **Monitor the Process:** Once the hiring process is complete, a key risk management practice is to ensure that a manager is performing in accordance with a desired style or discipline (the reason they were hired in the first place). Also, schemes will normally put monitoring arrangements in place to assure that the style or discipline is having the expected result (performance in relation to a benchmark or passive investment alternative). A pension scheme's investment consultant or staff, independent of the portfolio management function, usually tracks a manager's adherence to the guidelines on a periodic basis. Further, they may provide the board with a formal report identifying discrepancies in the portfolios and reasons for, or actions relating to, those discrepancies.

- **Monitor Performance:** Monitoring the long-term performance of the strategic decisions is another way schemes manage the risk that the strategies will not provide the anticipated returns for the scheme. The impact of strategic decisions usually only becomes apparent over a period of years. Individual annual returns for strategies may be volatile when compared to the returns of the underlying asset class or policy benchmarks. For example, a decision to overweight smaller companies may lead to an underperformance compared with the general equity market for several years in a row. A long-term performance measurement scheme can monitor these return variances or risks by simply tracking the impact of these particular strategies over time and comparing them to the alternative of investing in the broad asset class or policy benchmark.

In the case of DC schemes where unitised vehicles are typically used, there are additional important considerations relating to the structure and breadth of products available from a manager. Some considerations in this area are:

- Legal Structure of Vehicle
- Dealing Frequency
- Pricing Methods
- Exit Penalties

4.3.2 Operational Failure

The risk of operational failure is not primarily concerned with investment strategy or tactics, but management and operational issues in the implementation process. Operational failures often result from a breakdown in schemes, procedures, personnel, or processes. One common approach to avoiding potential operational failure is for the management of pension schemes to implement procedures that ensure achievement of the following control objectives:



- 1) The reliability and integrity of information.
- 2) Compliance with established policies, procedures, laws, and regulations.
- 3) The safeguarding of assets.
- 4) The economical and efficient use of resources.
- 5) The accomplishment of established objectives and goals for operations and programs.

Operational failure can occur in four major areas within a pension scheme: investment managers (internal or external), custodial banks, administrators and internal operations. Pension scheme management usually takes a consistent approach to managing and monitoring each of these relationships. They do not assume, for example, that internal managers generate less risk simply because they are part of the organisation. On the other hand, they do not assume that external managers and custodians pose less risk because they are reputable industry experts. Things can go wrong in any environment, and, as a result, schemes should address risk through a systematic and steady approach.

4.3.2.1 Investment Managers

The management of operational risk associated with investment managers focuses on activities by the manager that change the assets held in their account, primarily buying or selling securities. Assuming the controls of the custodial bank are functioning properly (an assumption addressed later), then the operational failure of the external manager can basically only be the result of three actions:

- A security is inappropriately sold;
- A security is inappropriately purchased; or
- An intended sale or purchase of a security is not accomplished.

These actions are all the result of the manager not complying with the guidelines and strategies set forth by the pension scheme. The possibility always exists that an external manager, either intentionally or unintentionally, will not adhere to the guidelines or strategy for which they were hired. As discussed above, an adequate monitoring process should mitigate the risk of noncompliance by the manager. Therefore, an operational risk associated with external managers is that timely and reliable information is not available or that the information is inaccurate. Generally, the longer a portfolio is allowed to be out of compliance with the established guidelines and strategies, the more likely the returns of the portfolio will not live up to expectations.

Many schemes hold their assets via unitised vehicles where a Trustee function exists to oversee the running of the asset portfolio, within the guidelines laid out within the specific product.



ACTION POINTS

- **Separation of Authority from Custody:** The legal custody of a pension scheme's assets is usually maintained through a custodial bank. Securities are held at the custodial bank on the pension scheme's behalf. Investment Managers do not have direct control over those assets and must perform their activities through the custodial accounts. When a security is purchased or sold, the custodian must receive instructions from the manager to receive or deliver the security (usually on a "delivery vs. payment" basis). Consequently, any manager employed should create only a limited amount of operational risk with regard to the overall pension scheme because they only have access to the funds assigned them by the scheme.
- **Understanding the Compliance and Control Culture within the Manager:** Trustees should understand the back-office processes that ensure that the assets are managed consistent with their objectives.
- **Due Diligence:** Pension schemes also manage the risk of external manager operational failure by incorporating good hiring practices and conducting periodic due diligence reviews as discussed above. During the hiring process the scheme should take steps to ensure the external manager has adequate resources and qualified personnel to enable them to disseminate timely and accurate information. The ongoing due diligence reviews help the Trustees identify significant changes in the manager's organisational structure, ownership, personnel, or available resources that may affect future operational performance.

4.3.2.2 Custodians

A system must be in place to ensure that the assets of a pension scheme are maintained safely, securely and with the appropriate legal protection. This task falls primarily to the custodian. Therefore, a key component of managing operational risk by pension schemes is the quality of the custodial system.

ACTION POINTS

The IAPF has previously published guidelines on Custodial Arrangements and these should be referred to for more in-depth discussion of custodial issues.



4.3.2.3 Administrators

The booklet on Trustee Governance produced by the IAPF Benefits Committee suggests that Service Agreements are put in place where administrators are employed.

4.3.2.4 Internal Operations

Thus far, we have addressed the operational risks associated with external agents, but the internal operations of the scheme are also exposed to operational risk. Such operational risk is present in areas of internal asset management, cash management and operating systems to protect data integrity.

- **Internal Asset Management:** In some pension schemes, internal staff serve as asset managers. Most of the operational risks of internal management are the same as if the assets were being managed externally. These risks include cash movements in and out of the portfolios and compliance with the portfolio's intended strategy. However, some additional concerns are brought about by the practice of internal management and these need to be addressed by implementing procedures to internally manage assets.
- **Cash Management:** Another internal operational risk involves cash management. Cash management involves the movement of cash between accounts, or into and out of the portfolio either for distribution to beneficiaries or to fund external asset managers at the appropriate level. The risk is that unauthorised movements of cash will be made or that inappropriate amounts of cash will be distributed.
- **Operating Systems:** Finally, there is the risk that the internal operating systems necessary to support the investment activity, for both internally and externally managed assets, will fail. Internal computer systems may go down or the building in which the pension scheme is located may suffer a catastrophe.

ACTION POINTS

- **Independent Oversight:** To address the potential lack of independent oversight, pension schemes often assign individuals who are independent of the portfolio management function to monitor the portfolio for compliance with established guidelines. An external investment consultant, an internal audit group, other staff (e.g., compliance officer), or a combination can perform the monitoring function.
- **Business Continuity Plan:** The risk associated with the internal operating systems of a pension scheme may be limited because the “official” holdings and books of records are usually maintained off site at custodial banks. Nonetheless, pension schemes usually take steps to minimise the chances of failed internal operating systems. Regular back-ups of important internal data are usually performed and stored off site to preserve the data. In addition, a back-up connection line to the custodial bank and other essential communication links are often installed to ensure reliable data is available at all times. Finally, most pension plans develop some sort of disaster recovery plan to ensure the operating systems can be up and running as soon as possible in the unlikely event of a total breakdown in computer systems, building malfunctions and other catastrophes.





Irish Association of Pension Funds,
Suite 2, Slane House, 25 Lower Mount Street, Dublin 2, Ireland
Tel +353 1 661 2427 Fax +353 1 662 1196 E-mail info@iapf.ie
www.iapf.ie