

**Paper Title**

Managing risks to provide confidence of financial sustainability.

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**Context of problem**

Universities are critical to society – whether that’s developing the skills the economy needs, boosting regions, driving social mobility, or discovering the next scientific or innovation breakthrough.

However, universities are at a critical turning point. In 2021-22, one in four UK universities reported an operating deficit. PwC was commissioned by Universities UK (UUK) to consider the financial sustainability of the UK’s Higher Education sector<sup>1</sup>. Their report highlighted that over the past decade the sector has been facing increasing financial pressures.

In May 2024 the OfS published a paper that reported the results of analysis of the financial impact of scenarios on the Higher Education Market Place. It found that a large proportion of institutions would be in a position of weak liquidity under four different tuition fee income scenarios.

During times of operating deficit, the universities face a choice of whether to use their unrestricted reserves to fund the shortfall, or to access alternative finance.

There is varying, and in some cases limited, access to finance across the sector to mitigate the liquidity risk. Providers with scale, a strong financial standing, brand, and reputation have had the choice of issuing public bonds, raising private placements and / or accessing the main clearing banks. For other providers, accessing the capital markets has not been possible and they have been more reliant on shorter term debt from the main clearing banks. Future economic constraints and weaker financial performance could further limit the availability of affordable borrowing options.

This means that institutions unrestricted reserves may be required to fund shortfalls during times of financial crisis. The reserves (own funds) of the university may be held in assets of

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<sup>1</sup> UK Higher Education Financial Sustainability Report -Jan 2024 PWC



varying degrees of liquidity. If insufficient liquid assets are held in reserve, it may result in disposal of assets at suboptimal rates of return. If the overall quantity of assets is insufficient the university will become insolvent. Therefore, universities need to maintain sufficient quality and quantity of unrestricted reserves to provide confidence that they will continue to be financially viable despite unforeseen risks. Universities need to manage their capital according to their financial strength considering when capital contingency actions should be taken, when austerity measures should be implemented and when a spend culture should be adopted to take advantage of opportunities.

Financial pressures are particularly acute for certain institutions, due to their exposure to certain risks and shock events. Universities need to manage their exposure to risks within their means.

The question is, “How do you manage the exposure to financial pressures of an institution to provide confidence of ongoing financial viability despite limited access to finance and whilst in a time of considerable uncertainty.”

### **Proposed Solution Outline**

In this paper a six-point plan is outlined.

- “Expand” going concern assessment to cover unforeseen risks.
- Create an assurance map to scope “known and reasonably knowable risk events”.
- Model the financial uncertainties through quantitative risk assessment.
- Determine overall sufficiency of financial resources, on both a current and forward-looking basis.
- Develop and implement a capital management policy
- Operate ongoing intelligent risk management.

In summary, this paper recommends the implementation of a risk-based solvency regime that ensures the exposure to risk is managed within an organisation’s financial means.

### **“Expand” going concern assessment activity to cover unforeseen risks**

A going concern assessment is used to determine whether a company is likely to survive the next year. Essentially, it assesses whether the company has enough financial resources to continue its operations during the assessment period and, if not, whether the managements plans are sufficient to alleviate concerns. If a company is not considered a going concern, it may not have sufficient funds to survive, and this fact must be publicly disclosed in the financial statements.



A going concern assessment consists of three stages. Firstly, an assessment of conditions and events, that is an evaluation of whether there are conditions and events that raise doubt about an entity's ability to continue as a going concern within one year after the date the financial statements are issued. Secondly, an evaluation of the entity's ability to meet its obligations during the assessment period. Considerations include the entity's current financial condition, liquidity sources (e.g., available liquid funds, access to credit), and other relevant factors. Thirdly an evaluation of the effectiveness of management plans to address concerns. If management's plans are effective in alleviating substantial doubt, the entity is considered a going concern. Otherwise, substantial doubt remains.

Accounting Standard Codification 205-40 states that substantial doubt about an entity's ability to continue as a going concern may exist when current conditions and events, considered in the aggregate, raise substantial doubt about whether the entity will be unable to meet its obligations as they become due within the assessment period. The likelihood threshold of probable is defined as "the future event or events **are likely to occur**". That means that the event is **expected to occur** in the next 12-month period. This assumes that a reporting entity will continue to operate as a going concern until its liquidation becomes imminent. Where losses are expected it is necessary to make provisions for them in the accounts.

There is a second category of events, those that whilst not likely to occur within the next twelve-month period, may in fact materialise as shock events. These are unforeseen risks.

An institution holds unrestricted reserves to cover unforeseen risks and for other general purposes. Long term financial sustainability of an institution depends on it having sufficient quality and quantity of unrestricted reserves to cover unforeseen risks that may occur in the next 12-month period, in aggregate.

Currently there is no standard methodology for evaluating the level of unrestricted reserves required to cover unforeseen risks, nor is there a requirement for disclosing the sufficiency of the unrestricted reserves on this basis. This means that there is currently limited regulatory oversight of whether an institution can survive following any unforeseen risk event.

It is perhaps unsurprising then that several institutions will fail following unforeseen shocks.

The first recommendation is to expand assessment of sufficiency of financial resources to provide governing bodies with confidence that an institution will survive in the event of an unforeseen risk.



## **Create an assurance map to scope “known and reasonably knowable risk events”**

The going concern assessment should be based on the relevant conditions that are “known and reasonably knowable”. The term “reasonably knowable” was introduced to emphasize that a reporting entity should make a reasonable effort to identify conditions that it may not readily know, but that could be identified without undue cost and effort. The term “reasonably knowable” refers to something that is capable of being known or understood. It implies that the information or concept is within the realm of comprehension and can be reasonably grasped or comprehended by individuals.

There have been several recent examples that highlight gaps in the identification of reasonably knowable risks within going concern analysis. These include the recent post office scandal, creating an additional liability more than £100m, the Birmingham city council equal pay dispute, creating a liability of more than £1.2 billion, the infected blood scandal, creating a liability of more than £10bn, and the UCL breach of contract terms during strikes and covid litigation. Justification for omission in going concern analysis may be that inclusion may be considered a public admission of liability. However, institutions need to consider these reasonably knowable losses in consideration of sufficiency of financial resources. Failure to include in consideration can result in bankruptcy, for example Birmingham city council.

So, the question is how institutions can ensure that all knowable or reasonably knowable events are identified.

To systematically identify known or reasonably knowable events institutions can use assurance maps. The ICAEW’s guidance suggest that assurance maps are a vital tool for mapping the main sources and types of assurance in an organisation. This includes risk assessment. Assurance maps should therefore be used to scope and plan the quantitative assessment of risk events on an expected basis (which equates to going concern analysis) and unexpected events (unforeseen events). Assurance maps provide a hierarchical categorisation of risks that is aligned to an organisation’s strategy and operating model. By so doing they provide an articulation of the events that could be known, reasonably known, or are unforeseen.

To create an assurance map, we consider alignment with strategy. Assurance activity should cover all perspectives of an organisation’s strategy. Using the balance business scorecard as a model this means considering: -

- Financial risks: - Risks of fluctuations in financials that underpin the institution solvency.



- Conduct risks: - Risks of actions taken by the institution, or of an associated individual that result in damage to the reputation, good name and values of the organisation.
- Operational risks: - Risk of external events or failed internal systems that underpin the continuous provision of services.
- Capacity risks: - Risk of insufficient resources or surplus of resources to meet demand.

Within each of these four overarching categories there are subcategories of risks. For example, within conduct there are categories of risks relating to compliance with general regulation (such as data protection), there are categories relating to conduct in education (such as access and participation), research (such as research academic integrity) and other student and consumer services (such as student residency provision).

In addition to providing the scope of ongoing concern assessments, assurance maps have other benefits. Governing bodies are required to provide oversight that all risks are being managed and controlled. This means receiving and reviewing reports from assurance functions. Once an assurance map has been defined for an organisation, it is possible to scope the activities for each assurance function and to collate the outputs of each assurance function. Assurance activity is delivered by multiple functions. Without a common scope, there may be overlap in activity, gaps in activity and perhaps more importantly the reporting of these functions cannot be easily aligned making interpretation of assurance information by governing bodies more difficult. There is an opportunity here to standardise an assurance map for HE institutions allowing variation for non-core services.

The second recommendation, is therefore, to provide a standard scope of assurance activity, including going concern analysis, through the establishment of an assurance map.

### **Model the financial uncertainties through quantitative risk assessment**

There are areas of uncertainty that need to be considered when delivering financial forecasts. We need to model the quantitative impact of this uncertainty on the balance sheet of the institution.

This can be done by defining stress tests to evaluate the impact of unforeseen risks (shocks) to the institution. The size of stresses needs to consider the level of confidence of financial sustainability that a governing body requires- its appetite for risk. If it wants to have 95% confidence that the institution will remain financially sustainable it will apply larger stresses than if it only wants to have 50% confidence that the institution will remain financially sustainable.



There are uncertainties around financials (including assets value, credit liabilities, and funding and expenditure) and uncertainties regarding conduct risks, operational risks, and capacity risks.

Uncertainties around asset values: - Asset market values depend on investment market factors. Investment market fluctuations are well known meaning there is a degree of uncertainty in terms of both the income from investments and the value of the investments.

Uncertainties around liabilities value: - These include possible defaults of counterparties resulting in legal liability obligations, and exposure to defaults by debtors.

There are uncertainties for university funding. Universities are funded by multiple funding streams including tuition fees and contracts income, research grants and contracts income, central government grants, donations and endowments, investment income, other commercial income. There is a degree of uncertainty for all these income streams including consideration such as, volumes of students, fees caps, research funding allocation model, level of central research funding.

Universities have several streams of expenditure including operational expenditure (made up from staff expense, premises expense and other operating expenditure). Expenditure depends on the demand for services, the services provided, and the cost per unit of service. There is a degree of uncertainty regarding the cost per unit of service (due to inflation, national minimum wage, university pay scales, pension policy and actuarial valuation of pension schemes, operational losses, amount of waste, etc).

Uncertainty around conduct: - conduct risk liabilities include compensation payments to staff, consumers or members of the public and regulatory/ legislative fines and penalties. These liabilities may be mitigated in part by public liability insurance, employee liability insurance and product liability insurance. However, there is a residual liability depending upon whether terms & conditions of insurance policies are complied, level of excess, maximum insurance cover. Moreover, regulatory fines and penalties are not coverable by insurance. Many regulators have enforcement policies which articulate the maximum level of fine.

Uncertainty about operations: - operational loss expenditure includes the replacement and/or repair of operational assets and losses of income due to business disruption. The risk can be mitigated in part by buildings and contents insurance, IT insurance, cyber insurance, key person insurance and other insurances. The residual liability depends on the coverage of the risk by the insurer, insurance excess, compliance with terms and conditions of insurance.



Uncertainty about capacity: - losses may be incurred due to lost business from having insufficient capacity to meet demand or from wastage due to having a surplus of resources to meet demand. Costs may be incurred through redundancy programmes.

The drivers for risks, allowing for variance on the additional services, are common across the sector. This means that it should be possible to standardise stresses across the sector and model uncertainties in a standardised manner. Establishment of a standard model across the sector would enable one tool to be built and deployed across the sector...saving cost in quantitative assessment activities by individual institutions.

### **Determine overall capital requirement for unforeseen risks- the SCR**

To determine the overall sufficiency of financial resources we need to aggregate the impact of the individual shock events. This is not simply a summing of the individual impacts. We need to consider the shocks that can occur and the relationship, if any, between these shocks- that is the correlation between risks.

We can make a judgement of correlation between risks by analysing the correlation of past loss events and by considering the commonality of the drivers of the risk.

Once we have determined the correlation between the risks at various levels, we can apply a simple formula to determine the aggregate impact. We can call the aggregate impact the solvency capital requirement (SCR). This is the quantity of financial resources required to cover risks at a defined confidence level, say 95% or 1 in 20.

The third recommendation is to build a standardised model for quantitatively assessing the impact of risks and uncertainties on the balance sheet both individually and in aggregate. The model enables us to determine the overall solvency capital requirement to cover unforeseen risks.

### **Assess sufficiency of financial resources to cover unforeseen risks**

Currently there are two measures to assess the sufficiency of financial resources of an institution. These are (i) coverage of technical provisions; and (ii) coverage of 30 days of operational expenditure.

The first of these is assessed annually in the going concern assessment activity. The second measure has been established by the regulator and may be considered to be the regulators minimum capital requirement (MCR) of an institution. It is monitored throughout the year, Any breach of this is a regulatory reportable event.

In addition to these two measures, some institutions have defined an additional capital buffer for unforeseen risks. Whilst this provides a safeguard, it has frequently been set



without a formal methodology to ensure its sufficiency to cover unforeseen risks. Setting this additional capital buffer to be equal the solvency capital requirement should enable institutions to have confidence of sufficiency of coverage of unforeseen risks.

Ideally the governing body should be able to make statements such as:

“The governing body can confirm that the organisation has sufficient resources to cover its technical provisions”.

And

“The governing body confirm that there are sufficient unrestricted resources to cover the minimum capital requirement, that is to cover operational expenses for 30 days”.

And

“The governing body has reasonable confidence (95%) that there are sufficient unrestricted resources to cover unforeseen risks to the operating model”.

This would be enabled if financial resources were measured by (a) coverage of technical provisions; (b) percentage coverage of the minimum capital requirement; and (c) percentage coverage of the solvency capital requirement.

The fourth recommendation is to measure sufficiency of financial resources by coverage of the technical liabilities, minimum capital requirement, and the new solvency capital requirement.

### **Consider forward looking sufficiency**

Financial sustainability is not just about considering the current adequacy of financial resources. It requires a forward-looking analysis. By way of recap:

- ‘Illiquidity’ means a provider being unable to pay its debts as they fall due.
- ‘Financially viable’ means that the OfS judges that there is no reason to suppose the provider is at material risk of insolvency within a period of three years from the date on which the judgement is made.
- ‘Financially sustainable’ means the OfS judges that the provider’s plans and protections show that it has sufficient financial resources to fulfil conditions D(iii) and D(iv) for the period of five years from the date on which the judgement is made, and that it is likely to be able to operate in accordance with these plans and projections over this period.

Historically to oversee financial sustainability the regulator has reviewed financial statements, financial forecasts and performance against key financial indicators. Financial forecasts have recently been critiqued as being overly optimistic. There is therefore a need to deliver a degree of confidence in financial forecasts.





By considering the probability distributions of the random variables underpinning the balance sheet position, we can undertake Montecarlo simulations to create forecast positions for at defined confidence levels. This considers both the upside and downside position. That is, we can create expected, pessimistic and optimistic financial forecasts.

This Montecarlo modelling can produce results at different indicator levels. For example, it can be done for staff wage expenditure, total staff expense, total operating expense, surplus, and unrestricted reserves. It can also be used to forecast optimistic and pessimistic outlooks for performance against key financial indicators.

The fifth recommendation is to assess sufficiency of financial resources on a forward-looking basis by using Montecarlo modelling techniques to assess the upside and downside forecasts at different levels of confidence.

### **Develop a capital management policy**

Public sector organisations may have a short-term focus on profitability. This means that when there are unexpected bad years, with deficits in income over expenditure, an organisation can be at risk of illiquidity and bankruptcy. There is often a spend culture in years of surplus despite not being in a strong long term financial position.

Safeguarding financial sustainability requires the adoption of controls that restrict spending when it endangers financial strength of the organisation. These controls should be documented within a capital management policy that should be owned by the Board of Governors.

A key control that should be included in the capital management policy is a capital contingency plan. The capital contingency plan should outline the types of action that an institution will implement depending on the level of sufficiency of financial resources. This should include actions of raising capital through financial management activity and liquification of assets through investment activity. It should also include activity for regulatory disclosure, and heightened monitoring procedures.

A second key control that should be included in the capital management policy is a methodology for determining when financial resources can be used for general use and when they should be reserved to maintain financial strength. That is a method for constraining the allocation of financial resources. The three measures defined previously (coverage of technical provisions, coverage of MCR, and coverage of solvency capital requirement) can be used to trigger different types of management activity.

- If the SCR level is breached, austerity measures may be introduced, such as freezing hiring, removal of contractors, and other cost reduction activity. Risk reduction activity should also be undertaken to minimise exposure to further financial weakening.



- If the MCR level is breached and there are insufficient resources to cover 30 days of expenditure, then a capital contingency plan should be triggered.
- If the institution does not have sufficient financial resources to cover its technical provisions, then it should be disclosed in the financial statements that the institution is no longer a going concern, and the institution should be liquidated.

The fifth proposal to establish a capital management policy that includes key controls for managing a financial crisis (a capital contingency plan) and for constraining the allocation of financial resources in a manner that promotes and maintains financial strength.

### **Ongoing risk management**

Intelligent risk management should prevent the need to implement the capital contingency plan. The outputs of risk management should dovetail with decision making to support coordinated and economical application of resources to minimize, monitor, and control the probability and/or impact of unfortunate events or to maximize the realization of opportunities.

Risk management is not about creating long list of risks and then taking the top ten. This approach has been taken by many organisations for a prolonged period and has failed to protect organisations from financial failure. Einstein (debated source) said that “insanity is doing the same thing over and over again and expecting different results”. Clearly it is time to change.

We can learn from highly regulatory sectors such as financial services. In these sectors risk management consists of several activities which dovetail with decision-making processes.

Risk management activities include:

- Objective Setting: - Establishment of risk management strategy including risk appetite.
- Emerging Risk Identification: -Horizon scanning to identify threats and opportunities.
- Risk Assessment: Quantitative and qualitative assessment of risks on a current and forward-looking basis.
- Risk Monitoring: Monitoring of parameters of risk and current issues to identify any fluctuations in exposure or proximity.
- Risk Control: Establishment of minimum standards of control in policy documentation.
- Risk Reporting: Annual reporting of exposure to risks on a quantitative and qualitative basis
- Risk Response: - Response planning for and crisis management of materialised risks. this includes capital contingency plans, business continuity plans, insurance recovery arrangements.



Whilst this looks like a significant amount of activity, establishing a framework upfront means that this activity can be undertaken systematically and in some instances it can be automated.

The final proposal, therefore, is to develop a robust risk management system that dovetails with decision-making and provides outputs that inform the allocation of financial and other resourced.

### **Summary**

Whilst over the past decade the higher education sector has been facing increasing financial pressures, there are actions an institution can take to protect itself from insolvency. Development of a risk-based solvency regime can provide finance directors with the tools they need to manage financial sustainability and can provide governing bodies with the information required to manage the capital allocation in a manner that promotes financial sustainability.

### **Author Biography**

Charmaine began her career in risk management within the financial services sector. The insurance sector found itself in financial crisis which resulted in the introduction of Solvency II, a regulatory programme to implement a risk-based solvency regime. Charmaine has recently worked with a focus on translating the risk-based solvency regime approach to higher education and public sectors.

