

# Building a Risk-Based Reserves Policy

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**Stroke**  
Association

[stroke.org.uk](https://stroke.org.uk)

# What Are Reserves For?

## Four ways to think about reserves

1. **Savings** made up of all the surpluses and deficits have accumulated over the years
2. What we are **worth**– everything we own (assets) less everything we owe (liabilities)
3. In a for-profit company they would be the **shareholders' funds**
4. The amounts **saved** in previous years to cover uncertainty and risk and future plans

# Manage Fluctuations

- Reserves allow us to manage fluctuations in the financial cycle:-
  - Fundraising is skewed across the year
  - Large donations are highly unpredictable
  - Grant payments can vary

## Make future plans

- Reserves allow us to plan into the future:
  - We can **designate** surpluses to be spent on special projects or activities
  - We can **invest** reserves so that we can get investment income
  - We can take more risks in our future plans as we have a **cushion** if things go wrong

# Manage and Embrace Risks

- Reserves allow us to manage risks:
  - We can deal with **crises** as they arise
  - We can use reserves to increase our **risk appetite**
  - We use reserves to cover **existing risks**
    - This is what a Risk-based Reserves policy does explicitly

# Risk-based Reserves Approach

# How to use reserves to manage liquidity

- We need reserves to manage Risks and **liquidity**
  - We need enough money in the bank at the beginning of the **year** to see us through to the end of the year
  - We need enough money in the bank at the beginning of the **month** to see us through to the end of the month
  - We need to ensure that we can cover planned deficits and other **cash demands** such as grants, trade creditors

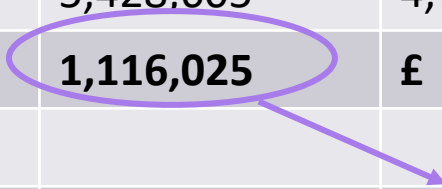


## How to use reserves to manage liquidity

- We need to put aside some reserves to manage **liquidity**
- If your **cash flow forecasts** are good enough use them, otherwise take a **simple** approach:
  - Look at the **biggest gap** between highest and lowest bank balance over each of the last three years
  - Add any **planned deficit**

# Liquidity Requirement

<b>Bank Balance £s</b>	<b>2018/19</b>	<b>2019/20</b>	<b>2020/21</b>
Highest	4,984,670	6,544,630	5,340,835
Lowest	4,529,787	5,428,605	4,778,901
<b>Gap</b>	<b>454,883</b>	<b>1,116,025</b>	<b>£ 561,934</b>
Planned Deficit			£ 956,000
<b>Liquidity Requirement</b>			<b>£2,072,025</b>



## How to use reserves to manage risks

- Update the **risk register** every quarter
- Estimate a **cost** for each risk should the risk **materialise**
- The cost consists of:
  - The **immediate losses** from the risk materialising
  - The **cost of adjustment** if the risk has a long-term impact
- Looking specifically at the impact on **free/unrestricted** reserves.
- NB Some risks covered from **restricted** funds

## How to use reserves to manage risks

- We cannot reserve for all the **long-term impact** of risks materialising
- Our free reserves give us the capacity to absorb losses and **adjust** to a new affordable structure
- When a risk **materialises** it may take some time to identify it, and to understand its impact.
- We will then need **time** to adjust to the new level of income. And incur costs in doing so.
- SO We need free reserves to cover for **immediate** losses AND to cover the cost of **adjustment**

# Weighting Our Risks

## We weight our risks

- As not all risks will happen at once we look at the **likelihoods** of the risks arising in the year ahead
- We then **weight** the risk to reflect the likelihood. So if a risk has a 25% likelihood of occurring then we multiply the cost by that amount

## Risk Likelihood

- We look at the **inherent** likelihood – if we take no action
- We look at the **residual** likelihood – if we take the mitigating action
- By multiplying the cost of the risk by the inherent likelihood and the residual likelihood we calculate a **price** for the risk
- At Stroke we use the **average** of the inherent and residual risks, you could use the residual risk.

# Pricing Our Risks



## We price our risks

- The cost of the risk is £1,000,000
- The inherent likelihood is 50%
  - So the inherent price is £500,000
- The residual likelihood is 10%
  - So the residual price is £100,000
- We price the risk at the average of the two
  - So the price of this risk is **£300,000**
- This is the amount that we reserve for that risk

# Calculating Our Risk Reserve Requirement

- Once we have the price of every risk we **add them up**
- We then **round** to the nearest £500k
  - This is so that we only worry about **major** fluctuations
  - Also recognise that these are **estimates**
  - Currently totals **£7.0m**
- And we also add the **liquidity** requirement – currently £2.0m
- Risk-Reserves Calculation is **£9.0m**

# Using Our Reserves

# Steering in the Right Direction

- The Three Year Financial Plan sets our overall direction:

£000s	2021/22	2022/23	2023/24
<i>Free Reserves</i>	<i>10,800</i>	<i>12,056</i>	<i>14,633</i>
Reserve Requirement	9,000	9,000	9,000
Excess reserves available	1,800	3,056	5,633

- In this case we can see that our free reserves are expected to be at the lowest **£1,800k in excess** of our requirement.
- If reserves are deficient we would have to generate surpluses over the three years to meet our requirement.

# Steering in the Right Direction

- If reserves are in surplus, trustees can agree various courses of action:
  - Increase expenditure
  - Designate Funds
  - Keep the reserves as they are to allow for more investment income
  - Increase the risk on the investment portfolio in order to improve the returns

# Advantages and Disadvantages

# Disadvantages of the Model

- But...
- There is a lot of estimation involved:
  - Cost
  - Likelihood
- You might find that you are back to three to six months anyway
- Difficult to estimate unknown risks
- Depends on quality and scrutiny of Risk Register and financial plans

## Advantages of the Model

- We have a more rational basis for calculating reserve requirements
- We explicitly link the risk register to three year plans
- We have a better idea of how much reserves we need and can rationalise these
- We are explicitly aware of the risks we cannot cover should our reserves be deficient
- If a risk materialises we have the resources to protect the organisation and to rebuild if necessary





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