

Subject A311

CMP Upgrade 2024/25

CMP Upgrade

This CMP Upgrade lists the changes to the Syllabus, Core Reading and the ActEd material since last year that might realistically affect your chance of success in the exam. It is produced so that you can manually amend your 2024 CMP to make it suitable for study for the 2025 exams. It includes replacement pages and additional pages where appropriate.

Alternatively, you can buy a full set of up-to-date Course Notes / CMP at a significantly reduced price if you have previously bought the full-price Course Notes / CMP in this subject. Please see our *2025 Student Brochure* for more details.

We only accept the current version of assignments for marking, *ie* those published for the sessions leading to the 2025 exams. If you wish to submit your scripts for marking but only have an old version, then you can order the current assignments free of charge if you have purchased the same assignments in the same subject in a previous year, and have purchased marking for the 2025 session.

This CMP Upgrade contains information on:

- all significant changes to the Syllabus and Core Reading
- additional changes to the ActEd Course Notes and Assignments that will make them suitable for study for the 2025 exams.

1 Changes to the Syllabus

There have been no changes to the A311 Syllabus objectives.

2 Changes to the Core Reading and ActEd material

This section contains all the *non-trivial* changes to the Core Reading and ActEd text.

Chapter 1

Section 7.2

Amend the first bullet point in this section to:

- **TAS 100: General Actuarial Standards. This is a short statement of high-level principles covering risk identification, judgement, data, assumptions, models, communications, and documentation.**

Chapter 21

Section 3.4

Amend the paragraph under the sub-heading 'Natural disasters' to:

Certain countries and areas are known to be susceptible to natural disasters, such as tidal waves, earthquakes, volcanic eruptions, hurricanes, floods, drought and famine. Climate change is impacting the extent and incidence of many of these types of disaster.

Chapter 25

Section 2

At the end of the first paragraph below the bullet point list (immediately before the Question), the reference should be to Section 6.

Chapter 29

Section 1.2

Replace the first two (Core Reading) paragraphs in this section with the following:

A common step in the risk assessment process used by financial institutions is to extend the risk identification approach covered in Chapter 25, by estimating both the probability of occurrence and the cost or impact if a risk event were to occur, for each material risk identified.

Once the financial institution has both the probability of occurrence and the cost / impact for a risk event, it can look to rank risk events. One approach to doing this is risk-scoring, where the financial institution assesses the impact of the risk on a five-point scale (or a three-point scale). For the five-point scale, the potential impact could be categorised into: 5 = high, 4 = medium-high, 3 = medium, 2 = medium-low, 1 = low.

Delete the second sentence ('This risk-scoring approach ...') from the end of the third (Core Reading) paragraph.

Section 1.4

Replace the second and third Core Reading paragraphs in this section with the following:

In banking, operational risk has typically been measured using a standardised approach. For example, this could be as a percentage of average income over the last three years, or simply as a percentage uplift to the total aggregated risks other than operational risks.

In the European Union, the Solvency II standard formula for insurers uses a factor-based approach based on premiums and provisions.

Chapter 31

Section 6

Replace the first Core Reading paragraph in this section with the following:

Where a financial institution has, in its risk assessment process, identified a range of high impact but low probability risks, it will need to consider how to manage these risks. Such risks are likely to be among the most difficult risks it has to manage. They are likely to include both risks related to normal business activities and operational risks.

Chapter 33

Practice Questions

The references in questions 33.2 and 33.3 should both be to Section 1.2.

Chapter 35

There have been a number of changes in this chapter, so replacement pages 3 to 16 are included at the end of this document.

Chapter 37

Section 1.2

Delete the first three ActEd paragraphs in this section (starting 'Solvency II succeeded ...', 'Solvency II is much wider ...' and 'As noted above ...').

Section 2.2

Delete the final (Core Reading) paragraph of this section (starting 'Other methods that ...').

Amend the final sentence of the last (ActEd) paragraph of this section to:

Assets are also valued at market-consistent value or fair value.

Insert the following new (ActEd) paragraph at the end of this section:

Capital requirements can be determined by applying stress or scenario tests to the balance sheet values of assets and liabilities, and then by setting the required capital as the amount that would enable the provider to continue to meet its obligations under such adverse conditions. The economic capital requirement is therefore typically determined by modelling the impact of such tests on the market-consistent values of assets and liabilities. The next section covers the use of models to assess capital requirements in more detail.

3 Changes to the X Assignments

There have been no changes to the X Assignments.

1 Insolvency of an insurance company

1.1 Regulation

Insurance companies are normally subject to some form of state regulation and they are usually required to maintain a certain level of solvency capital. There are also regular reporting requirements that enable the regulator to monitor the financial position of companies. These are designed to enable the regulator to intervene in the running of a company before it reaches the position of being unable to meet its liabilities.

The required solvency capital therefore provides extra security to an insurance company's policyholders, enabling the regulator to take action where appropriate to protect policyholders' benefits, before the company becomes unable to meet its liabilities.

1.2 Intervention

Consequently, in such environments, insurers rarely become insolvent. If the required level of solvency capital is breached, the regulator intervenes to protect the interests of existing or prospective policyholders.

Recovery plan

In most cases, the company will be required to establish a recovery plan, and this will be monitored closely by the regulator.

The recovery plan may include some or all of the following actions:

- changing the investment strategy to invest in assets that better match the liabilities
- implementing a plan to raise new capital
- increasing the amount of reinsurance the company has in place
- limiting the levels of new business sold.

Limiting the levels of new business sold may not make a significant difference in practice, as the volumes of new business for a company nearing insolvency may be very low anyway.



Question

Explain why the volumes of new business may be very low for a company nearing insolvency.

Solution

If a company has got as far as the regulator intervening (including specially monitoring the company's solvency position), then this is likely to be widely reported. Customers may consider that a company perceived as *risky* is not a wise choice when taking out a new policy. In addition, financial advisers, the financial press and possibly the regulator may warn prospective customers of the risks associated with the company. Also, the company may already have taken action to limit new business if it has identified capital shortfalls.

Closure to new business

If the insurer's financial position is serious, then the regulator may require it to close to new business, so that new policyholders are not entering a fund whose solvency may be in doubt.

Closure also removes the pressure of new business strain on the limited remaining available capital.

However, closure to new business is normally a last resort, because it will be difficult for the insurance company to re-open.

At the very least, a regulator is unlikely to permit re-opening to new business until the company has substantially more than the minimum capital requirements built up.

If a company maintains the infrastructure (staff, premises, systems) to enable it to re-open, these costs will be a further drain on capital while no business is being written.

If the insurer writes products where significant initial charges are taken from the policies, it may be permitted to start selling this business again in order to benefit from retaining these charges within its capital base. However, such products are often not popular with customers and it may be difficult to sell them in sufficient volumes.

If a provider closes to new business, it will still have outstanding liabilities from the business written that will need to be met. There should be capital releases from this business as it matures. However, in the longer term, a lack of economies of scale will bite and further actions will be needed.



Question

A mutual life insurance company has only ever sold with-profit business.

The company closed to new business following intervention by the regulator when it was unable to meet the solvency capital requirement. Consequently, it has suffered from diseconomies of scale as fixed expenses have been spread over an ever-reducing number of policies.

- Describe the other problems that the company is likely to face in the longer term.
-

Solution

In the longer term, the issues for the company will include:

- the costs of closing down – e.g. moving to smaller premises, redundancies as fewer staff are required to administer the business
 - restrictions on the investment policy – as the proportion of benefits that are guaranteed increases over time
 - changes to the bonus philosophy – as the proportion of guaranteed benefits and investment policy change
 - policyholders' reasonable expectations – e.g. if the investment policy or bonus philosophy change radically from what they were at the time at which a policyholder took out the contract. Communication with policyholders will be important.
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Resolution plan

Increasingly, insurance companies are producing resolution plans as well as recovery plans. Resolution planning is used when recovery actions have not been successful and insolvency seems inevitable.

Sale or merger

The insurer may be sold to or merged with another provider who takes on the liabilities.

A sale or merger would avoid the potential problems described above by ensuring that there was always at least a *critical mass* of business in force which made the operation of the business practicable.

1.3 Modelling

In any of the above recovery scenarios, it will be important to carry out projections of the insurer's future position. Such modelling could be done on a range of deterministic scenarios or with the aid of a stochastic model.

The projections should provide information on:

- **the solvency position of the insurer**
- **shareholder profits (if any).**

The model should allow for:

- **any costs relating to staffing levels, including redundancies**
- **the amount, and timing, of any loan or debt redemption**
- **obligations relating to any staff benefit schemes, particularly if these schemes are in deficit**
- **tax.**

It will be important to make assumptions about the actions that might be taken in various scenarios, and to include these in the model.

It is critical to the validity of the model that any actions that the insurer might take in response to future developments would actually be implemented in practice. For example, a projection of the future solvency position should only reflect sharp cuts in discretionary benefits being made in response to falls in asset values *if* the company would truly make such sharp cuts *in practice*. In reality, the insurer may be reluctant to make benefit cuts for competitive reasons or for fear of not meeting policyholders' reasonable expectations. Or the insurer may decide to *defer* the benefit cuts in relation to the timing represented in the model, in the hope that the solvency problems are only temporary.

If there is an acquiring company prepared to take over the business, it will be necessary to consider:

- **the location of the operation**
- **any integration of the systems platform**
- **relocation of staff or whether there is an adequate labour force already available**
- **the effect of the takeover on unit costs.**

1.4 Compensation schemes

Where an insurer cannot meet its liabilities (as opposed to not having adequate solvency capital), and a buyer cannot be found to take them on, there may be a statutory scheme set up from which some or all of the benefit payments are paid.

Such a scheme is usually funded by a levy on all other providers.

For example, in the UK there is a Financial Services Compensation Scheme (FSCS). In South Africa, this would be governed by the Financial Services Authority (FSA).

Policyholders are eligible for protection under this scheme if they are insured by an authorised insurance company and that company is unable to meet its liabilities. Under the scheme, compulsory insurance claims (e.g. third party motor insurance and employer's liability) are paid in full. For other insurance claims, 90% of the benefit amount is paid.

The FSCS is funded by a levy on all authorised providers.

2 Closure of a sponsored benefit scheme

2.1 Types of closure

There are two types of closure of a benefit scheme:

- the scheme is closed to new members but existing active members' benefits continue to accrue
- the scheme is closed to new members and no further benefits accrue to existing members.

The type of closure will depend on the circumstances: whether the employer / sponsor is insolvent or needs to reduce costs, whether the employer wishes to follow market trends in benefit provision, or any other reason.

For a defined benefit scheme, the scheme rules will need to set out the benefits that will be provided on discontinuance.

Closed to new members only

The scheme is closed to new members.

Existing members' benefits are unchanged. In defined benefit schemes, benefits continue to accrue with additional service and salary increases.

There should not be significant human resource issues, as the scheme is simply not offered on joining employment and the new employee accepts the revised remuneration, eg salary and perhaps access to an alternative benefit scheme.

The sponsor expects to continue to pay contributions for the declining number of active members. The contribution rate as a percentage of salary is likely to both increase (although the contribution amount will fall as the number of members declines) and also become more volatile as the membership reduces.

Closed to new members and no accrual of any future benefits

The scheme is closed to new members, and also no further benefits accrue to existing members.

There are likely to be human resource issues under this approach, as the existing members will no longer receive benefits in respect of future service, and they are likely to have had expectations that such benefits would continue to accrue.

The sponsor will not need to make any contributions to meet the cost of future accrual, but may still need to make some contributions to the scheme if it is in deficit, to make up the shortfall.

2.2 Level of benefits

Where a benefit scheme is set up to provide benefits for a group of individuals, consideration needs to be given to the benefits that will be payable were the scheme to cease. This may arise due to the insolvency of the sponsor or a decision to stop financing the benefit provision.

The benefits that will be paid to the members of the discontinued scheme will be affected by the following factors:

- **the *rights* of the beneficiaries, which will depend on the terms under which the scheme operates and any overriding legislation**
- **the *expectations* of the beneficiaries, which are likely to be the benefits that would have been available had the scheme not discontinued.**

If there are insufficient assets to meet the rights and expectations of beneficiaries, a lower benefit may be paid.

Rights will rank ahead of expectations if there aren't enough assets to meet both for all beneficiaries. Defining the terms *rights* and *expectations* is a matter of judgement.

Rights

There are many interpretations of the *rights* of beneficiaries. At one end of the scale, they only have a right to the benefits that have been, or should already have been, received. At the other end of the scale, beneficiaries have a right to what they would receive if they remained in the scheme until retirement and continued to accrue benefits.

Expectations

The interpretation of *expectations* (the benefits that would have been paid had the scheme not discontinued) will involve deciding whether to include:

- future accrual of benefits
- future growth (e.g. earnings link) that would apply other than on leaving
- any discretionary benefits (e.g. discretionary pension increases or enhanced early retirement terms).

The determination of the rights and expectations of the beneficiaries is only relevant if there are sufficient assets available to ensure the provision of benefits at that level. If the scheme's assets do not cover the liabilities, some or all of the benefits will have to be reduced unless the shortfall can be met, e.g. through a third party guarantee.

Level of assets – schemes in deficit

If the scheme is in deficit, then either:

- some (or all) of the members will have to accept a reduced benefit
- the sponsor will (if possible) be required to make up the deficit.

Where the whole benefit scheme is being discontinued and there are insufficient assets in the scheme to provide all the promised benefits, and the scheme sponsor is unable to provide further funding, then the accrued benefits will also be reduced.

If the benefits are to be reduced, legislation or scheme rules may indicate which types of benefits are to be reduced or which types of beneficiaries are to have their benefits reduced.

The different categories of members might be listed in an order of priority that determines which benefit payments must be made first and which will have to be reduced if there is a shortfall of assets. Benefits already in payment are often deemed to have the highest priority.

The assets for these purposes may simply be those that have been funded.

Alternatively, there may be additional assets available to secure the discontinuance benefits.

- **Legislation or ethics may lead to extra funds being made available by a solvent sponsor.**
- **Legislation may require a debt to be placed on an insolvent sponsor, which may rank alongside, above, or below other creditors.**
- **Insurance may have been taken out that ensures the sufficiency of assets in the event of the insolvency of the sponsor.**
- **There may be a State-sponsored fund to support benefits where the employer is insolvent. Such a fund may be paid for by a levy on solvent schemes.**

The expenses involved in determining the benefit allocations, informing the beneficiaries and securing the appropriate form of provision will further reduce the assets.

These expenses (e.g. legal fees, actuarial fees) will have to come from the scheme assets if the sponsor is insolvent. Expenses will usually be a first call on the assets because the advisers would not be willing to perform the necessary calculations, etc. for free. Therefore they will be higher in priority than even the highest-ranking type of beneficiary.

For example, consider a scheme with assets of R1,500,000.

The discontinuance liabilities, in order of priority, are as follows:

1.	Expenses	R80,000
2.	Pensions in payment	R500,000
3.	Members' voluntary savings	R80,000
4.=	Early leavers' benefits	R350,000
4.=	Benefits for active members	<u>R640,000</u>
		R1,650,000

In this scenario, the funding level is 91%. However, the expenses and the first two categories of benefits would be paid in full and the remainder would be reduced to 84.8% of their promised level.

Level of assets – schemes in surplus

If, on discontinuance of the scheme, the assets are more than sufficient to meet the benefit rights of the members under the chosen method of provision, the surplus may pass back to the sponsor.

Alternatively, legislation or scheme rules may require the surplus funds to be used to increase the benefits.

The allocation of any surplus to individual beneficiaries may be done, taking account of the length of membership or other possible indicators of the extent to which the individuals can be viewed to have contributed to the surplus.

Ownership of a surplus can be a contentious issue. Other than length of membership, other possible indicators that could be used to allocate any surplus to members include the value of a member's benefits or the level at which a member paid contributions.

It can be difficult to decide the fairest way to allocate any surplus assets, due to perceived inequity across different generations or different categories of members.

For example, pensioners might feel aggrieved if only the benefits of those members not yet retired are enhanced.

Some members may lose out as a result of moving from one category of membership to another, e.g. retiring shortly before the benefit improvements for those not yet retired were granted.

In practice, such an extreme distribution of surplus would be unlikely.

2.3 Provision of benefits

If a benefit scheme is being discontinued, the following options may exist for the provision of the outstanding benefit payments:

- **continuation as a closed scheme, paying the accrued benefits as they fall due from the existing fund**

The scheme operates as a closed fund and no more benefits accrue, but there is an existing fund that is used to meet benefit outgo as it falls due (subject to adequate funding levels).

This option is generally used as a temporary measure until one of the other methods of securing benefits becomes a more attractive or sensible option.

- **transfer of the liabilities to another scheme with the same sponsor**

Discontinuance is not always the result of financial failure of the sponsor. If the sponsor is still in existence, it may have set up a new scheme into which the benefits can be transferred.

if the sponsor has been, or is being, taken over, the liabilities might be transferred to the purchasing company's scheme.

- **transfer of the funds directly to the beneficiaries**

It may be that a payment can be made to each member to reflect the capital value of their benefits.

Legislation may not allow an individual to receive the capital value of their benefits. However, an alternative may exist that allows the individual to place the funds with an appropriate insurance company or in the scheme of any new employer.

- **transfer of the funds to a personal pension (eg with an insurance company) – which will be defined contribution in nature ...**

... or to a new employer's scheme – which may be defined benefit or defined contribution

Where the payment is to be made to beneficiaries, legislation may require that this payment remains within a pension arrangement. In that case, the individual may need to place the funds with an appropriate insurance company (or similar provider) or in the scheme of any new employer.

Funds transferred to a pension provider would be invested to provide a personal pension policy, either on a group or individual basis. This would almost certainly be 'defined contribution' in nature, without the guarantees that would have been provided in the original defined benefit scheme.

- **transfer of the liabilities to an insurance company to guarantee the benefits through the purchase of immediate and deferred annuities**

The benefit scheme liabilities could be transferred to an insurance company to *guarantee* the benefits. Immediate annuities would be purchased (normally on a group basis) to cover the liabilities in respect of pensions in payment. Similarly, deferred annuities would be purchased to cover liabilities in respect of deferred pensioners.

- **transfer of the liabilities to a central discontinuance fund, operated on a national or perhaps industry-wide basis.**

In some countries, particularly where the employer of a discontinued scheme is no longer in existence, it may be possible for the assets and liabilities of that scheme to be transferred into a central fund. This may be run by the government or an industry body, and can be beneficial as it leads to economies of scale in investment and administration.

Considerations

A scheme sponsor may favour transferring funds / liabilities to another party if it wants to crystallise any surplus or deficit, in order to remove any uncertainty about its financial obligations to the scheme.

If benefits remain in the scheme and the employer remains solvent, the employer remains liable for any shortfall in the value of assets to meet the promised benefits. The employer may need to finance any initial deficit and any future deficits that may arise.

If benefits are transferred to a third-party arrangement that does not offer guarantees (eg a defined contribution scheme, or an insurance policy that is simply an investment vehicle), the ultimate benefit will then depend on the assumptions used to determine the capital value transferred and future experience, eg investment returns on the funds.

The benefits may be greater or smaller than the discontinuance benefit.

In other words, the risks and potential rewards are transferred from the scheme to the individual. The individual is exposed to the risks of the actual experience (in terms of investment, mortality, etc) differing from the assumptions used to calculate the value of the benefits to be transferred.

If the liabilities are transferred to a third party that will guarantee to pay a specified level of benefit, such as an insurance company, the third party will be accepting the risks of adverse future experience.

The third party will charge a premium for taking on these risks. As a result, the balance of the funds may not be sufficient to provide in full the benefits that could have been targeted using one of the other forms of provision described above. Nevertheless, this approach can give more security to the scheme member and complete severance for the employer / sponsor.

An alternative way of guaranteeing benefits, other than with an insurer, is via the operation of some form of central discontinuance fund – as mentioned above. Such central funds may not guarantee to provide 100% of the benefits. The central fund might impose levies on other employers providing schemes, to meet shortfalls in the fund if experience is poor.

3 Insolvency of a bank

3.1 Regulation

Banks are also normally subject to some form of State regulation and they are usually required to maintain a certain level of solvency capital.

This is covered further in a later chapter.

They are also required to regularly report to regulators who monitor their financial position.

3.2 Intervention

Banks are also often required to have plans in place with regards to what will happen if they get into difficulties. For example, banks in the European Union have recovery and resolution plans, hopefully enabling them to recover but, if not, enabling them to fail in an orderly manner to limit or avoid a knock-on effect on other banks (i.e. systemic risk).

The close linkages between banks heightens this systemic (or contagion) risk.

Recovery plans set out the actions a company should take in order to keep itself solvent, such as raising further capital and stopping paying dividends or coupons. Resolution plans set out the actions that should be taken if the recovery plans have been ineffective or insufficient, such as radical restructuring.

Under resolution, the regulatory authorities ensure continuity of the bank's critical functions and seek to recover parts of the bank that are viable. Parts of the bank that are not viable are allowed to go into liquidation.

It might be possible to sell parts of the operations to other banks, as was the case when Lehman Brothers filed for bankruptcy in 2008.

As is the case for insurance, customers of a failed bank may have losses at least partly protected under a compensation scheme.

In South Africa, a failing bank may be placed in curatorship with the purpose of rehabilitating it. Curatorship provides for tools and instruments to manage a bank's liquidity and operations in order to save the bank. Resolution actions for curatorship may include a transfer of assets and liabilities or other banks or mergers with other banks.

Liquidation is usually the last resort, which involves winding down the operations of the bank.

The processes ultimately try to maximise the value owing to depositors. As an additional layer of protection to depositors, many countries have an explicit deposit insurance scheme in place. This is used to protect depositors' funds when a bank becomes insolvent. South Africa currently has an implicit deposit insurance arrangement, in which government has compensated depositors on a case by case basis. South Africa is looking to implement an explicit scheme within the next few years.

The chapter summary starts on the next page so that you can keep all the chapter summaries together for revision purposes.

Chapter 35 Summary

Insolvency of an insurance company

Insurance companies rarely become insolvent because:

- a regulator typically regularly monitors the financial position of insurance companies
- insurance company regulation typically requires companies to hold a minimum level of solvency capital.

If the insurer's financial position is serious (e.g. the solvency capital requirement is not met), then the regulator may intervene and require the company to:

- close to new business, or
- establish a recovery plan (with implementation monitored closely by the regulator).

It will also be important to project the insurer's solvency position into the future, using either a stochastic model or a deterministic model with scenario testing.

In the extreme event that an insurer cannot meet its liabilities, and a buyer cannot be found to take them on, there may be a statutory scheme from which some or all of the benefit payments are paid. Such a scheme is usually funded by a levy on all other providers.

Closure of a sponsored benefit scheme

There are two types of closure of a benefit scheme:

- no new members but benefits continue to accrue for existing members
- no new members and no further benefit accrual for existing members.

A benefit scheme may cease due to:

- the insolvency of the sponsor
- a decision by the sponsor to stop financing benefit provision, eg to reduce costs or to follow market trends in benefit provision.

If a scheme ceases, the level of benefits that will be paid will be affected by the:

- *rights* of the beneficiaries
- *expectations* of the beneficiaries
- the level of *assets*.

At the time of discontinuance, the scheme may be:

- under-funded, in which case consideration will need to be given to the priority of the different groups of members of the scheme in receiving benefits
- over-funded, in which case the surplus may pass back to the employer, or may be used to improve the benefits of the scheme members. Consideration must be given to ensuring that members' basic rights are met before seeking to improve the benefits.

The approach to be taken in either case may be dictated by legislation or scheme rules.

If a benefit scheme is being discontinued, the following options may exist for the provision of the outstanding benefit payments:

- continuation of the scheme without any further accrual of benefits
- transfer of the liabilities to another scheme with the same sponsor
- transfer of the funds directly to the beneficiary, if permitted
- transfer of the funds to a 'defined contribution' personal pension (*eg* with an insurance company) or to a new employer's scheme
- transfer of the liabilities to an insurance company to guarantee the benefits through the purchase of immediate and deferred annuities
- transfer of the liabilities to a central discontinuance fund (national or industry-wide).

For the first two options, the employer remains liable for any shortfall in assets relative to benefits (if any new scheme is also defined benefit). For the third and fourth options, the risk of adverse experience falls to the individual (or possibly the new employer, if it offers a defined benefit scheme). For the fifth option, the insurer takes the risk and will charge an additional premium for this. For the sixth option, the discontinuance fund takes the risk and is typically funded through a levy on solvent sponsors.

Insolvency of a bank

A bank may become insolvent when:

- a bank is unable to meet its obligations to its depositors and creditors,
- a bank's value of its assets falls below the value of its liabilities.

Bank failures may create systemic risk in an economy. Therefore, swift action must be taken by regulators to prevent any financial crisis.

A bank may be placed in curatorship in order for actions to be performed which could eventually save the bank.

The last course of action is liquidation in which the bank is wound up and closed.