

优你教育,作为澳洲最专业的大学补习机构之一,专注于为广大在澳留学生们提供

涵盖商科、工科、IT专业几乎所有本科课程的辅导
CFA辅导、免费升研以及未来职业规划。

现在墨尔本当地已拥有四大校区
分别为墨大校区、RMIT校区、迪肯校区和Monash校区

优你拥有独家的线上、线下教育系统,和先进的线上学生管理系统切实
践行“精品大课+VIP一对一+个性化”三大标准。



更多商科/工程/IT课程
扫码咨询

本科&Master开课List

本科-商科Level 1

| | | | | | | | | | | |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| ECC1000 | ECC1100 | ECF1100 | ECF1200 | ETF1100 | ETC1000 | ETC1010 | MGF1100 | MGF1010 | MGC1010 | |
| MKF1120 | MKC1200 | BFF1001 | BTF1010 | BTC1110 | MTH1010 | MTH1020 | MTH1030 | ACF1100 | ACC1100 | ACB1120 |

本科-商科Level 2

| | | | | | | | | | |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| BFF2140 | BFF2701 | BFF2401 | BFC2140 | BFC2751 | BFB2140 | ECF2731 | ECF2721 | ECF2331 | ECB2330 |
| ECX2630 | ECX2953 | ECC2000 | ECC2010 | ETF2700 | ETF2121 | ETF2100 | ETC2410 | ETC2440 | BEX2000 |
| BEX2500 | MGF2351 | MGF2111 | MGF2661 | MKF2121 | MKF2531 | MKF2521 | MKF2111 | MKF2801 | MKF2341 |
| BTC2000 | BTF2000 | BTB2220 | ACF2100 | ACF2200 | ACF2400 | ACC2100 | ACC2200 | ACC2400 | ACB2120 |

本科-商科Level 3

| | | | | | | | | | |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| BFF3231 | BFF3121 | BFF3751 | BFF3841 | BFF3351 | BFF3651 | BFF3140 | BFF3999 | BFC3999 | BFC3140 |
| BFC3170 | BFC3241 | BFC3240 | BFC3340 | BFC3540 | BFC3341 | BFB3121 | BFX3301 | BFX3355 | ETF3231 |
| ETF3480 | ETC3460 | ETC3410 | ETC3550 | ETC3580 | ETC3250 | ETX3250 | BTC3200 | BTC3150 | BTF3931 |
| BTB3221 | BTX3110 | BTX3181 | ECF3121 | ECB3121 | ECF3144 | MKF3461 | MKF3881 | MKF3151 | MKF2131 |
| MKF3121 | MKF3131 | MKF3471 | MGF3621 | MGF3681 | MGX3100 | MGX3110 | BEX3131 | BEX3000 | BEX3500 |
| ACF3100 | ACF3200 | ACF3600 | ACC3100 | ACX3150 | ACX3900 | | | | |

本科&Master-IT

| | | | | | | | | | |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| MAT1830 | MAT1841 | FIT1051 | FIT1045 | FIT1053 | FIT1008 | FIT1006 | FIT1047 | FIT1049 | FIT1043 |
| FIT2004 | FIT2001 | FIT2085 | FIT2094 | FIT2081 | FIT3171 | FIT3047 | FIT3175 | FIT3048 | FIT3077 |
| FIT3161 | FIT3139 | FIT3155 | FIT3152 | FIT9131 | FIT9132 | FIT9136 | FIT5197 | | |

本科-Arts

| | | | | | | | | | | |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| ATS1206 | ATS1297 | ATS1279 | ATS1325 | PSY1011 | ATS2439 | ATS2996 | ATS2186 | ATS3732 | ATS3969 | ATS3337 |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|

Master-商科

| | | | | | | | | | |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| BFC5914 | BFC5916 | BFC5926 | BFC5925 | BFC5280 | BFF5956 | BFF5340 | BFF5270 | BFF5954 | ECX5953 |
| ECF5921 | ECF5923 | ECF5927 | ECX5630 | ECC5901 | ECC5900 | ETF5912 | ETF5910 | ETF5970 | ETC5346 |
| ETX5900 | MKF5911 | MKF5955 | MGF5940 | MGF5960 | ACX5903 | ACF5100 | ACF5904 | ACF5955 | ACF5956 |
| ACF5957 | APG5122 | BEX5900 | BEX5810 | BEX5131 | | | | | |

在创立后的数年内,已经帮助数万名优你学子创造了辉煌的成绩,成为了墨尔本教育公司行业内的领军者

Monash Clayton校址: 1710-1712 Dandenong Road, Oakleigh East, 3166 VIC

Monash Caulfield校址: 854 Dandenong Road, Malvern East, 3145 VIC

City 校址: Level7, 440 Elizabeth Street, Melbourne, 3000 VIC



优你教育 BFC5914

Bank lending Week 10

-by Moria 老师

Week10 Problem Loans and Banking Regulations 知识点精讲

考点 1: Loan Default 贷款违约

Return 与 Risk 共存

- ✓ When financial institutions make loans, receiving the returns generated means accepting some default risk. 金融机构发放贷款时, 获得所产生的回报意味着接受一定的违约风险
 $\rightarrow A > L$ insolvency ACL
- ✓ It is imperative that default risk is managed so that the solvency of the bank is not threatened. 必须对违约风险进行管理, 以免银行的偿付能力受到威胁
- ✓ Should the problem loan be foreclosed or actively managed? 问题贷款是应该取消赎回权还是积极管理
- ✓ Default does not necessarily mean that all of the loan extended is lost. 违约并不一定意味着贷款全部丧失 Recovery rate (collateral)
- ✓ Default is defined here as 'a loan where repayments are overdue'. 这里对违约的定义是“还款逾期的贷款”
- ✓ Better lending procedures can minimize, but not eliminate, the risk of default. 更好的贷款程序可以将违约风险降至最低, 但不能消除违约风险
- ✓ It is harder to manage default risk as the loan book becomes larger. 贷款额度越大, 违约风险越难管理
- ✓ **Causes of Loan Default: 贷款违约的原因**
 - Lack of compliance with loan policies 不遵守贷款政策
 - Lack of clear standards and excessively lax loan terms 缺乏明确的标准, 贷款条件过于宽松
 - Inadequate controls over loan officers 对贷款人员的控制不足
 - Over-concentration of bank lending 银行贷款过于集中 某些行业: 房地产
 - Loan growth exceeding bank's capabilities 贷款增长超出银行能力
Deposit \rightarrow loan $\uparrow \uparrow$





- Inadequate problem loan identification 问题贷款识别不足
- Insufficient knowledge of customer's finance 对客户的财务状况了解不足
- Lending in unfamiliar markets 在不熟悉的市场放贷

✓ Extent of Problem Loans 问题贷款的程度

- All banks experience bad debts, but the management of them becomes critical 所有银行都会遇到坏账，如何管理坏账至关重要

✧ There is of course a considerable financial cost to the bank 银行要付出相当大的财务成本

✧ Some problem loans also become public relations nightmares 一些问题贷款会成为公共关系的噩梦
reputational damage

- Banks should consider: 银行应考虑

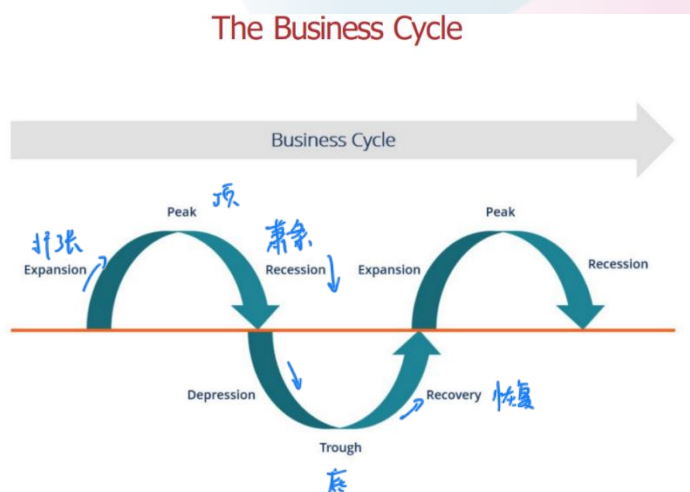
✧ Timing of loan in economic cycle 经济周期中的贷款时机

✧ Larger exposures to individual borrowers 对个别借款人的较大风险敞口

✧ Larger exposures to single sectors 对单一行业的较大风险敞口

✧ Close monitoring of exposures during unfavourable economic periods. 在经济不景气时期密切监控风险敞口

考点 2: The Business Cycle 商业周期





✓ The business cycle is characterized by three phases: 商业周期分为三个阶段

① ■ **Recovery and Expansion:** 复苏和扩张 从 trough 到 peak

- Flourishing economy with increased spending leading to higher deposits and interest rates. 经济繁荣, 支出增加, 导致存款和利率上升

■ **Boom:** 繁荣

- Major asset inflation with business overconfidence and declining credit standards. 资产大幅膨胀, 企业过度自信, 信贷标准下降

■ **Downturn:** 衰退 从 peak 到 trough

- Declining asset values and economic activity generally accompanied by increased defaults. 资产价值和经济活动下降, 通常伴随着违约增加

考点 3: Problem Loans & Provisions 问题贷款与准备金

✓ When borrower misses payments, two questions arise within lending institution 当借款人未还款时, 贷款机构内部会出现两个问题

- ? <
- Is missed payment temporary? 逾期未付款是暂时的吗
 - Is missed payment likely to be permanent? 逾期未付款是否可能是永久性的

✓ If payment more than 90 days, loan is considered an 'impaired asset' as return on loan not achieved 如果逾期未付款超过 90 天, 贷款将被视为“减值资产”, 因为贷款收益没有实现

- Value of impaired loan must be downgraded on statement of financial position 减值贷款的价值必须在财务状况表中降级

✓ APRA: If one asset is impaired, all loans to that client considered impaired 如果一项资产减值, 则该客户的所有贷款均视为减值

loan A → miss pmt > 90 天 → impaired
 B ✓
 C ✓ } → impaired





- When loans are impaired, institution must create a provision for a loan loss. 贷款减值时, 机构必须计提贷款损失准备金
- Provisions are classified in three ways: Specific Provisions, General Provision, Bad-Debt Write-Offs. 准备金分为三类: 特殊准备金、一般准备金、坏账核销

① Specific Provisions 特殊准备金

提前预留

- These are provisions set aside for a specifically identifiable loan where the institution assesses the: 这是为可具体识别的贷款预留的准备金, 机构在评估贷款时会考虑这些因素

- ✧ Condition of the loan; 贷款条件
- ✧ Condition of the borrower; 借款人的状况
- ✧ Impact of economic events 经济事件的影响

- Not all of the loan must have provisions made as lender may assess the likely losses from the asset 并非所有贷款都必须提取准备金, 因为贷款人可以评估资产可能造成的损失



- ✧ E.g. The loan has a face value of \$100 and the specific provision is \$50 based on the likely value of the security. 贷款面值为 100 美元, 根据担保的可能价值, 具体准备金为 50 美元

② General Provisions 一般准备金

整体看 portfolio 的 default rate.

(%) ↓

- These are provisions that are made as a proportion of the entire loan portfolio 这些准备金占整个贷款组合的一定比例
- Suitable for large loan portfolios of similar assets, e.g. mortgages, where (specific provisioning unsuitable) 适用于类似资产的大型贷款组合, 如抵押贷款
- APRA: Generally minimum provision of 0.5% of Risk-Weighted Assets 一般准备金最低为风险加权资产的 0.5
- Can adjust general provisions level depending on economic activity or risk levels: reflects (in Australia) a forward looking perspective of loan losses likely for the next

前瞻性的





period. 可根据经济活动或风险水平调整一般准备金水平: (在澳大利亚) 反映下一时期可能发生的贷款损失的前瞻性观点

- ✧ It does not identify which loans are likely to be in financial difficulty (that is a specific provision), but an assessment of the overall portfolio exposures. 它并不确定哪些贷款可能会陷入财务困境 (这是特殊准备金), 而是对整个贷款组合风险的评估

③ ✓ Bad Debts Write-off 坏账核销

- Recognition of bad debts occurs where: 在以下情况下确认坏账

- ✧ All security liquidated; 所有担保均已清算
- ✧ Guarantees have been enforced; 担保已执行
- ✧ Remaining remedial actions explored; and 已常识剩余的补救措施
- ✧ No remaining sources of cash can be called 已无剩余现金来源

- Once the above steps are completed, the financial institution must write off the bad debt with asset valued at zero and a charge made against profits. 完成上述步骤后, 金融机构必须注销坏账, 资产价值为零, 并从利润中扣除

✓ Other Considerations With Problem Loans 问题贷款的其他考虑因素

占用资金

- The provisions made reduce the availability of capital that could otherwise be used for lending purposes. 准备金减少了本可用于贷款目的的可用资金
- Institutions often have provisioning systems exceeding APRA requirements to reflect bank's risk profile. 机构的准备金系统通常超过 APRA 的要求, 以反映银行的风险状况

- ✧ Higher provisions indicate higher risk and/or more conservative management 准备金较高表明风险较高和/或管理较为保守
- ✧ Lower provisions indicate lower risk and/or more aggressive management. 准备金较低表明风险较低和/或管理较为激进





✓ Dynamic Provisioning 动态准备金

- The risk profile of the loan portfolio is sensitive to point in the economic cycle, e.g. greatest defaults occur at bottom of economic cycle. 贷款组合的风险状况对经济周期的各个阶段都很敏感, 例如, 最大的违约发生在经济周期的底部
- Therefore, credit risk is not static but changes over time. 因此, 信贷风险不是一成不变的, 而是随着时间的推移而变化
- Bad debts should not come as a surprise as modelling should detect changes to probable default risk in portfolio segments. 坏账不应该让人感到意外, 因为建模应能检测到贷款组合各部分的可能违约风险的变化

✓ Key principles in dynamic provisioning: 动态准备金的主要原则

- Classify loans into homogeneous groups 将贷款分为同质组 *CAPM assumption*
homogenous expectation
- Sub-classify groups by maturity length 按期限长短细分组别
- ✧ Determine probability of loss for each group 确定每组贷款的损失概率 *POD*
- ✧ Determine likely severity of loss for each group 确定每组贷款可能的损失严重程度 *LGD*
风险 → 损失
- Use the historical loan-loss information to create predictive model incorporating economic conditions, interest rates, investment activity, etc. 利用历史贷款损失信息, 结合经济状况、利率、投资活动等建立预测模型
- Apply model outcome to current provisions. 将模型结果应用于当前准备金

考点 4: Dealing With Defaults 处理违约

- ✓ If the loan is in default, the bank must act to minimise the losses arising from defaulting clients and may reschedule payments rather than liquidate loan. 如果贷款出现违约, 银行必须采取行动, 尽量减少违约客户造成的损失, 可以重新安排付款 ~~时间~~, 而不是清算贷款 *(x)*
- ✓ Classify defaulting clients into three categories: 将违约客户分为三类





- Mild financial distress 轻度财务困境
- Moderate financial distress 中度财务困境
- Severe financial distress 严重财务困境

个人project ✱

➤ ① Mild Financial Distress 轻度财务困境

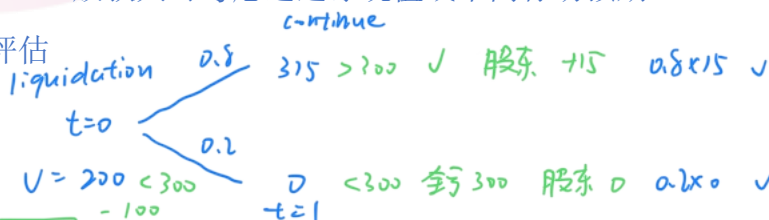
- Often occurs when borrower faces short-term cash flow shortages, e.g. late receipts
通常发生在借款人面临短期现金流短缺时，如逾期收款
- If default less than 90 days, remedies include: 如果拖欠少于 90 天，补救措施包括
 $< 90 \text{ 天}$
 - ✧ Changing/lengthening repayment schedules 更改/延长还款计划
 - ✧ Assisting firm if cash flow shortage has risen from period of rapid growth (e.g. overtrading) 如果现金流短缺是由于快速增长期造成的（如过度交易），则向企业提供协助
 - ✧ Encouraging firm to sell non-core assets 鼓励企业出售非核心资产
 - ✧ Requesting/demanding equity capital injection 请求/要求注入股本

➤ ② Moderate Financial Distress 中度财务困境

- May occur if cash flow problems coincide with borrower's asset values declining. 如果现金流问题与借款人资产价值下降同时发生，则可能出现这种情况
- Course of action determined by nature of collateral, e.g. foreclose on mortgage or support manufacturing firm with unique or limited market for assets. 行动方案由抵押品的性质决定，如取消抵押品赎回权或支持资产市场独特或有限的制造企业
- Lender may consider evaluation of alternatives via NPV or probabilistic model of Expected Values for different actions. 放款人可考虑通过净现值或不同行动预期值的概率模型对替代方案进行评估

✚ Example

- ✓ Company A Ltd. owes Monash bank \$300 and is in financial distress now. The owner of Company A has some special skills to run the firm, that costs him \$15. With these skills, firm value can be \$315 with a probability of 0.8, otherwise 0. The liquidation value of the firm is \$200.





✓ What are the choices for the bank? 银行有哪些选择

✓ First option is to liquidate 第一种选择是清算

- If not liquidate, the expected value of shareholder is: $0.8 \times (315 - 300) + 0.2 \times (0)$
 $- \text{cost}$
 $- 15 = -3 < 0$ 如果不清算, 股东的期望值为 $-3 < 0$
- After liquidation, Monash bank realizes a loss \$100 清算后, 莫纳什银行损失 100

② ✓ Second option is to restructure the loan to motivate the owner to continue 第二种选择是调整贷款结构, 以激励公司继续运营

- The restructure can be determined by the break-even condition: $0.8 \times (315 - x) + 0.2 \times (0) - 15 = 0$ 可以根据盈亏平衡条件来决定如何调整贷款结构
 $- \text{cost}$
- The new loan amount becomes: $x = 296.25$ 新的贷款额 $300 \rightarrow 296.25$
 shareholder BZK

✓ What will the bank choose? 银行会如何选择

- A loan \$296.25 (generating higher expected value) would be better than liquidation value \$200 and the owner would have the incentive to continue. 调整贷款额是比清算更好的选择

③ ➤ Severe Financial Distress 严重财务困境

✓ Characterized by missed payments and value of borrower assets less than loan amount.
 特点是借款人拖欠还款, 资产价值低于贷款金额

✓ Lender needs to very carefully evaluate whether it is better to: 放款人需要非常谨慎地评估是否最好采取以下措施

- ① Liquidate firms to recover greatest percentage of loan possible; or 清算公司, 尽可能收回最大比例的贷款 priority
- ② Restructure debt (inclusive of debts to other lenders) to maintain operations to allow firm to trade out of current crisis or be sold as going concern. 重组债务 (包括欠其





他贷款人的债务) 以维持经营, 使企业能够摆脱当前的危机或作为持续经营企

业出售 $19 \ 90 \ 0.25 \ 520 \ 520 - 75 = 445 \text{ shareholder } 0 - 15$

Example

- ✓ Monash bank again is having problem with Company A Ltd. Now Company A Ltd. owes senior bond holders \$75 and Monash bank \$500. It still costs Company A Ltd. \$15 to run the company, if it continues, the firm will be worth \$520 with a probability 0.75, otherwise 0. The liquidation of the firm is \$90 and the firm wants to default.

- ✓ Again what should the bank do? 银行应该怎么做

- ① The senior bondholders prefer to liquidate, because they will receive \$75 with certainty; otherwise, if continue, their expected value is $\$56.25 = (\$75 \times 0.75) + 0$.
优先债券持有者倾向于清算 $19 \text{ value} = 90 > 75$
② If continues, the shareholders of Company A will have to lose \$15, also prefer to liquidate. 股东也倾向于清算 $cost$
③ The bank prefers to continue, its expected value is around $\$333.75 = (\$520 - 75) \times 0.75$ rather than $\$15 = (90 - 75)$ 银行倾向于继续经营 > 15

- ✓ How can Monash bank reconstruct the debt to ensure the continuation of Company A?
莫纳什银行如何重组债务以确保 A 公司继续经营?

- ★ ① The bank needs to buy out the senior bond holders 银行需要买断优先债券持有人的债券 $替 Company A 的 senior bondholder 的 \75
② To motivate the shareholders to continue, i.e., covering the cost of continuation 激励股东继续经营, 即支付继续经营的成本 $\$15$
Now, the loan amount becomes \$575 贷款额 $575 = 500 + 75$
The break-even condition for shareholders: $0.75 \times (520 - x) - 15 = 0$ 股东的盈亏平衡条件 $cost$
The new contracted amount is: $x = 500$ 新的合同金额
That's much larger than the liquidation value (\$15) for bank. 比银行的清算价值大得多 $500 > 15$





✓ The Coordination Problem 协调问题

- Where numerous classes of debt-holders observed, e.g. syndicated loans, any rescheduling will require cooperation of all debt-holders (This can be very difficult to achieve in some cases). 如果存在众多类别的债务人，如银团贷款，任何重新安排都需要所有债务人的合作（在某些情况下这很难实现）
- May be difficult to coordinate actions between junior and senior debt-holders. 次级债务人和优先债务人之间可能难以协调行动 500 75
- Need to restructure debts to ensure all debt-holders treated equitably or else rescheduling proposal will fail. 需要重组债务以确保所有债务人得到公平对待，否则重组债务的建议就会失败

✓ Other Breaches 其他违规行为

- Corporate loans may have a variety of covenants imposed to protect loan quality. 企业贷款可能会有各种契约来保护贷款质量 债务条款 ↓
- Lender may place a variety of conditions to strengthen loan repayment probability: 贷款人可能会设置各种条件，以提高贷款偿还概率 POB ↑
 - ✧ No excessive withdrawal of cash flows 不得过度提取现金流
 - ✧ Risk profile of firm to remain unchanged 公司的风险状况保持不变
 - ✧ Specification of various ratios including gearing, dividend payout and interest coverage 规定各种比率，包括资产负债率、派息率和利息覆盖率
 - ✧ Continued involvement of key staff 关键员工的持续参与
 - ✧ Application of risk management strategies. 实施风险管理战略

考点 5: Regulations 监管

✓ Why Regulate Banks 为什么要监管银行

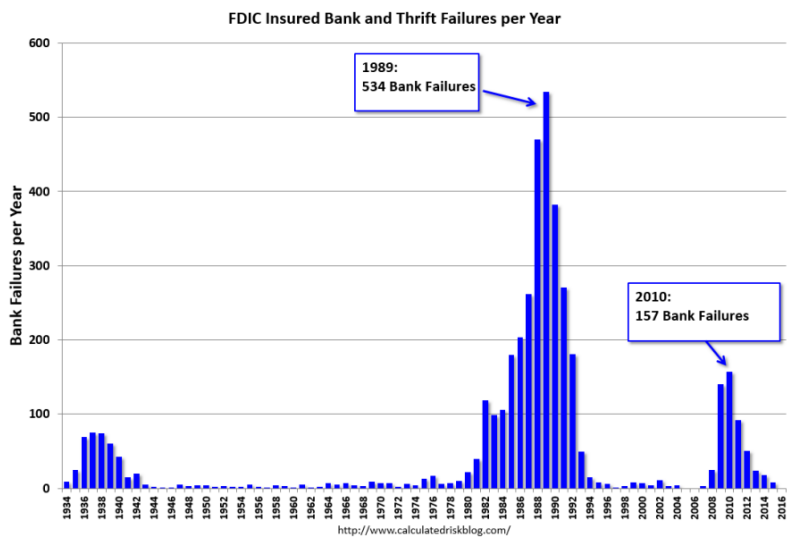
- Financial system is among the most heavily regulated sectors of the economy. 金融系统是受监管最严格的经济部门之一





- Banks are among the **most heavily regulated** of financial institutions. 银行是受监管最严格的金融机构之一
- Regulations could sometimes **impede development** of banks. 监管有时会阻碍银行的发展
- Regulations sometimes **can't prevent financial crisis**. 监管有时无法防止金融危机
- Are banking regulations beneficial? 银行监管有益吗

US Bank Failures



✓ Aim of Regulations 监管的目的

- **Market confidence**: to maintain confidence in the financial system 市场信心: 维护人们对金融体系的信心
- **Financial stability**: contributing to the protection and enhancement of stability of the financial system 金融稳定: 促进保护和加强金融体系的稳定
- **Consumer protection**: securing the appropriate degree of protection for consumers. 消费者保护: 确保消费者得到适当程度的保护
- **Reduction of financial crime**: reducing the extent to which it is possible for a regulated business to be used for a purpose connected with financial crime. 减少金融犯罪: 减少受监管企业被用于与金融犯罪有关的目的的可能性
- **Protecting Depositors** 保护存款人
- **Credit Allocation** 信贷分配





- Monetary Policy Transmission 货币政策传导 OMD
- Regulating foreign participation in the financial markets. 监管外资参与金融市场

✓ Asymmetric Information and Financial Regulation 信息不对称与金融监管

- Asymmetric information 信息不对称: Moral Hazard, and adverse selection

provide an excellent backdrop for understanding the current regulatory environment in banking. 道德风险和逆向选择是理解当前银行业监管环境的绝佳背景

- ① Moral Hazard 道德风险: Moral hazard occurs **after** a transaction or agreement has taken place. It refers to the risk that one party will change their behavior to the detriment of the other party because they are shielded from the consequences. 道德风险发生在交易或协议达成之后。它指的是，一方由于免于承担后果而改变自己的行为，从而损害另一方利益的风险。购买保险后，一个人可能会冒更大的风险，因为他们知道保险公司会承担损失，比如在购买汽车保险后鲁莽驾驶

- ② Adverse Selection 逆向选择: Adverse selection happens **before** a transaction or agreement. It arises when one party has more information than the other, leading to an imbalanced or unfavorable situation for the less-informed party. 逆向选择发生在交易或协议之前。当一方比另一方掌握更多信息时，就会出现逆向选择，导致信息不足的一方处于不平衡或不利的境地。在医疗保险中，知道自己有健康问题的人更有可能购买保险，而健康状况较好的人可能会选择不买。这就导致保险公司承保更多的高风险客户

Client 有较多
information
关于自身的
健康状况

health ↓ → 买 insurance
↑ → 不买

- There are nine basic categories of bank regulation, which we will examine from an asymmetric information perspective. 银行监管有九个基本类别，我们将从信息不对称的角度对其进行研究

✓ Government Safety Net: Deposit Insurance and the FDIC 政府安全网: 存款保险和联邦存款保险公司

↳ prevent bank run. 先到先得 → pro rata %

- By providing a **safety net**, depositors will not flee the banking system at the first sign of trouble. Indeed, between 1934 and 1981, fewer than 15 banks failed each year. 通





过提供一个安全网，储户不会一有麻烦就逃离银行系统。事实上，从 1934 年到 1981 年，每年倒闭的银行不到 15 家

- Up to the 1960s, only six countries had deposit insurance. By the 1990s, the number topped 70. 直到 20 世纪 60 年代，只有 6 个国家有存款保险。到 20 世纪 90 年代，这一数字已超过 70 个
- Has this spread of insurance been a good thing? Did it improve the performance of the financial system and prevent crises? 这种保险的普及是好事吗？它是否改善了金融体系的表现并防止了危机的发生？
- Oddly enough, the answer appears to be no. 奇怪的是，答案似乎是否定的
- Explicit government insurance is associated with less bank sector stability and higher bank crises. 政府显性保险与银行业稳定性降低和银行危机增加有关
- Appears to retard financial development 似乎阻碍了金融发展
- But this appears to be only for countries with ineffective laws, regulation, and high corruption. Indeed, for emerging markets, deposit insurance may be the wrong medicine! 似乎只适用于法律、监管不力和腐败严重的国家。事实上，对于新兴市场而言，存款保险可能是一剂错误的药

✓ Bank Panics and the Need for Deposit Insurance 银行恐慌与存款保险的必要性

- The FDIC insurance creates moral hazard incentives for banks to take on greater risk than they otherwise would because of the lack of "market discipline" on the part of depositors. 由于缺乏存款人的“市场约束”，联邦存款保险公司的保险产生了道德风险，促使银行承担更大的风险 *→ systematically important.*
- Regulators are reluctant to let the largest banks fail because of the potential impact on the entire system. This is known as the 'Too Big to Fail' doctrine. This increases the moral hazard problem for big banks and reduces the incentive for large depositors to monitor the bank. 监管机构不愿让最大的银行倒闭，因为这会对整个系统造成潜在影响。这就是所谓的“大而不能倒”理论。这增加了大银行的道德风险问题，降低了大额储户监督银行的积极性

✓ Restrictions on Asset Holdings 对资产持有的限制





- Regulations limit the type of assets banks may hold as assets. For instance, **banks may not hold common equity**. 监管限制银行可作为资产持有的资产类型。例如，银行不得持有普通股 $\Delta \uparrow \rightarrow risk \uparrow$
- Even with regulations in place, the 2007-2009 financial crisis still occurred. Perhaps more regulation is needed? 即使制定了相关法规，2007-2009 年的金融危机还是发生了。也许需要更多的监管

✓ Bank Capital Requirements 银行资本要求 *Basel*

- Banks are also subject to **capital requirements**. Banks are required to hold a certain level of capital (book equity) that depends on the type of assets that the bank holds. 银行也有资本要求。银行必须持有一定水平的资本（账面权益），这取决于银行持有的资产类型
- **Details of bank capital requirements:** 具体的银行资本要求
 - ◇ Leverage ratio must exceed 5% to avoid restrictions 要避免限制，杠杆比率必须超过 5% $>5\%$
 - ◇ Capital must exceed 8% of the banks risk-weighted assets and off-balance sheet activities 资本必须超过银行风险加权资产和资产负债表外活动的 8% $>8\%$ *RWA + off R/s*
 - ◇ New capital requirements are forthcoming to address problems (such as OBS items) with risk-weighted assets 新的资本要求即将出台，以解决风险加权资产的问题（如资产负债表外项目）

First National Bank

| Assets | | Liabilities | |
|------------------------------|--------|--------------------------|--------|
| Reserves | \$3 m | Checkable deposits | \$20 m |
| Treasury securities | \$10 m | Nontransactions deposits | \$60 m |
| Government agency securities | \$7 m | Borrowings | \$11 m |
| Municipal bonds | \$10 m | Loan loss reserves | \$2 m |
| Residential mortgages | \$10 m | Bank capital | \$7 m |
| Real estate loans | \$20 m |] total capital | |
| C&I loans | \$35 m | | |
| Fixed assets | \$5 m | | |





| | |
|---|-------------------------------------|
| <u>Weight</u> $0 \times \$3 \text{ million}$ | (Reserves) |
| $+0 \times \$10 \text{ million}$ | (Treasury securities) |
| $+ .20 \times \$7 \text{ million}$ | (Agency securities) |
| $+ .50 \times \$10 \text{ million}$ | (Municipal bonds) |
| $+ .50 \times \$10 \text{ million}$ | (Residential mortgages) |
| $+1.00 \times \$20 \text{ million}$ | (Real estate loans) |
| $+1.00 \times \$35 \text{ million}$ | (Commercial loans) |
| $+1.00 \times \$5 \text{ million}$ | (Fixed assets) |
| $+1.00 \times \$20 \text{ million}$ | (Letters of credit) |
| <hr/> <u>\$91.4 million</u> | <u>(Total risk-adjusted assets)</u> |

RWA

- Core Capital Requirement: 核心资本要求

- ◇ $= 4\% \times \text{risk-adjusted assets}$
- ◇ $= 4\% \times \$91.4 = \3.66m
- ◇ $< 7 \text{ m}$ of core capital from the balance sheet

- Total Capital Requirement 总资本要求

- ◇ $= 8\% \times \text{risk-adjusted assets}$
- ◇ $= 8\% \times \$91.4 = \7.312m
- ◇ $< 9 \text{ m}$ of total capital
- ◇ Total capital = 7 m of core capital + 2 m of loan reserves

Capital ↓ / Risk ↑ → Return ↑

- Of course, the system isn't perfect. Banks now engage in regulatory arbitrage, where for a given category, they seek assets that are the riskiest. Basel continued to work on the system. 当然，这个系统并不完美。银行现在参与监管套利，在特定类别中，它们寻求风险最大的资产。巴塞尔协议不断完善该体系

✓ The Basel Accord 巴塞尔协议

- In June 1999, the Basel Committee proposed several reforms to the original Basel Accord, with the following components: 1999年6月，巴塞尔委员会对最初的《巴塞尔协议》提出了几项改革建议，包括以下内容
 - ◇ Linking capital requirements to actual risk for large, international banks 将大型国际银行的资本要求与实际风险挂钩
 - ◇ Steps to strengthen the supervisory process 加强监管程序的步骤





- Further the 2007-2009 financial crisis revealed problems of the accord From Basel II to Basel III: 2007-2009 年金融危机进一步暴露了该协议的问题 从《巴塞尔协议 II》到《巴塞尔协议 III》
 - ✧ Didn't require enough capital to weather the financial crisis 没有要求足够的资本来抵御金融危机
 - ✧ Relied on credit ratings for weights 依赖信用评级权重
 - ✧ Procyclical credit standards restrict credit exactly when it is needed 周期性信贷标准恰恰在需要的时候限制信贷 *Risk ↑ → weight ↑ → Capital ↑ 在银行最需要的时候不让银行自由用*
 - ✧ Doesn't address liquidity problems 无法解决流动性问题
- The new system appears to be quite complex, and implementation is always delayed. 新系统似乎相当复杂，而且总是迟迟不能实施
- Only the largest U.S. banks will be subject to that 只有美国最大的银行将受此限制
- ✓ Prompt Corrective Action 及时采取纠正措施
 - An under-capitalized bank is more likely to fail and more likely to engage in risky activities. 资本不足的银行更有可能倒闭，也更有可能从事高风险活动
 - For example, "well capitalized" banks are permitted some underwriting risk. 资本充足的银行可以承担一定的承保风险 *loan → Asset*
 - However, "under-capitalized banks" must submit a capital restoration plan, restrict asset growth, and seek regulatory approval to open new branches or develop new lines of business. 资本不足的银行必须提交资本恢复计划，限制资产增长，并在开设新分行或发展新业务时寻求监管部门的批准 *↓ 不能放贷*
- ✓ Financial Supervision: Chartering and Examination 金融监督：特许和审查
 - Reduces the adverse selection problem of risk-takers or crooks owning banks to engage in highly speculative activities. 减少风险承担者或骗子拥有银行从事高投机活动的逆向选择问题
 - Periodic reporting (call reports) and frequent (sometimes unannounced) examinations allow regulators to address risky / questionable practices in a prompt *in a timely manner. 及时*





fashion. 定期报告（催收报告）和频繁的检查（有时是突击检查）使监管机构能够及时处理有风险/有问题的做法

- If examiners aren't happy, bank can be declared a 'problem bank' and subject to more frequent examinations. 如果检查人员不满意，银行就会被宣布为“问题银行”，接受更频繁的检查

✓ Assessment of Risk Management 风险管理评估

- Past examinations focused primarily on the quality of assets. A new trend has been to focus on whether the bank may take excessive risk in the near future. 过去的审查主要侧重于资产质量。新的趋势是关注银行在不久的将来是否会承担过多的风险
- Four elements of risk management and control: 风险管理和控制的四个要素
 - ✧ Quality of board and senior management oversight 董事会和高级管理层的监督质量
 - ✧ Adequacy of policies limiting risk activity 限制风险活动的政策是否充分
 - ✧ Quality of risk measurement and monitoring 风险衡量和监控的质量
 - ✧ Adequacy of internal controls to prevent fraud 防止欺诈的内部控制是否充分

BFF 5902

✓ Disclosure Requirements 信息披露要求

- Better information reduces both moral hazard and adverse selection problems. 更好的信息可以减少道德风险和逆向选择问题 *asymmetric information*
- "Sarbanes-Oxley" increased requirements for accurate accounting statements, created the PCAOB, and put limits on conflicts of interest. 萨班斯-奥克斯利法案提高了对准确会计报表的要求，成立了 PCAOB，并对利益冲突做出了限制
- Mark-to-market accounting may help, if asset values can be determined. 如果能够确定资产价值，按市值计价的会计方法可能会有所帮助 *传统会计 = Book value*

✓ Consumer Protection 消费者保护

- Standardized interest rates (APR) 标准化利率 *Annual percentage rate 年化利率* $EAR = (1 + \frac{APR}{n})^n - 1$ 更好: *market value* ✓
1个月 r 0.1%
3个月 r 0.9%
- Prevent discrimination (e.g., CRA to help avoid redlining particular areas) 防止歧视





- The 2007-2009 revealed further need for consumer protection (from themselves?) as consumers took out loans where they clearly didn't understand the terms. 2007-2009

年的情况表明，由于消费者显然不了解贷款条款，因此需要进一步保护消费者

responsible lending ✓

predatory lending x

✓ Restrictions on Competition 限制竞争

- Branching restrictions, which reduced competition between banks 分行限制，减少了银行之间的竞争 *competition ↑ → risky activities ↑*
- **Separation of banking and securities industries: Glass-Steagall.** In other words, preventing nonbanks from competing with banks (repealed in 1999) 银行业与证券业分离：格拉斯-斯蒂格尔法案。防止非银行与银行竞争（1999年废除）
- Can lead to **higher fees** and **less innovation**. 可能导致更高的费用和更少的创新

