**Banking Credit Risk Reduction**

This project is focused on detecting discriminatory loan practices, an operational risk, so that the bank can reduce the chances of adverse litigation and damage to its reputation.

Failure to manage risk can impact customers, employees and investors.

* Major risks for banks: Credit, operational, market, and liquidity risks
  + Credit Risk
    - The biggest risk for banks
    - Borrowers may not repay contractual obligations
    - During an economic downturn banks may be overexposed
  + Operational Risk
    - Loss due to errors or interruptions
  + Market Risk
    - Risk caused by the unpredictability of equity markets, commodity prices and interest rates
    - Banks that are more heavily involved in trading have more exposure
  + Liquidity
    - Ability of a bank to access cash to meet financial obligations
    - Issues with providing cash or access to funds can lead to a loss of customer confidence and even result in a bank run, such as the one that occurred at the Northern Rock bank during the 2007-09 financial crisis

<https://www.thenorthernecho.co.uk/news/15532030.pictures-ten-years-run-northern-rock/#gallery5>

* Risk Analysis Process
  + Identify
  + Assess
  + Control
  + Review Controls

CAMELS

Banks are rated by the CAMELS system, a rating system is not released to the public, but only to top management. There are 6 components of the CAMELS rating:

* Capital adequacy
* Assets
* Management capability
* Earnings
* Liquidity
* Sensitivity

Capital Adequacy Ratio (CAR)

* A bank’s ability to pay liabilities and respond to credit and operational risks. A bank with a good CAR has enough capital to absorb potential losses
* CAR = (Tier 1 Capital + Tier 2 Capital) / Risk-Weighted Assets
  + Tier 1 Capital
    - The form of capital which can most readily absorb a loss
    - Stock and retained earnings
  + Tier 2 capital
    - Reserves and hybrid securities that are less liquid and more difficult to measure
  + Risk-Weighted Assets - different assets classes held by banks carry different risk weights
* Banks are required to have a Capital Adequacy Ratio of at least 8%
* Capital divided by Risk-Weighted Assets needs to be at least 6%

Sources:

* Corporate Finance Institute <https://corporatefinanceinstitute.com/resources/career-map/sell-side/risk-management/major-risks-for-banks/#:~:text=The%20major%20risks%20faced%20by,%2C%20market%2C%20and%20liquidity%20risks>
* <https://www.fdic.gov/resources/supervision-and-examinations/examination-policies-manual/section2-1.pdf>