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Financial Risk Management&Regulation (M5320)
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https://courseworks.columbia.edu

Homework 1

Due: 1:00 pm Thursday 22 September 2016

1. **Banks**
   Compare and contrast community banks, savings and loans, and credit unions.

   Solution: They all perform retail banks functions like taking deposits and making loans. The difference lies in that the clients they service and their institution ownership structures. For community banks, they are privately owned and can offer services to anyone in the area. For savings and loans, they are mutually held which depositors are part owners, but anyone can become a member. For Credit unions, are also member owned cooperatives and only offer services to their members.

2. **Investment banks**
   Name 3 functions of investment banks that commercial banks do not participate in.

   Solution: Stock issuance, bond issuance, mergers and acquisitions.

3. **Market facilitators**
   Name 3 broker-dealers, 3 exchanges, and 3 clearing houses.

   Solution: Broker-dealers: Morgan Stanley, Wells Fargo, Ameriprise, Goldman Sachs; Exchanges: NYMEX, NASDAQ, LSE; Clearing houses: CME, LCH.Clearnet, ICE.

4. **Regulatory agencies**
   For each of the following institutions, list the regulatory agencies that regulate them.More than one may apply.
   (a) Regional bank

   Solution: The FDIC

   (b) National bank

Solution: The FDIC and the OCC

(c) Bank holding company

Solution: The FDIC and the Federal Reserve

(d) US branches of foreign banks

Solution: The OCC and the Federal Reserve

(e) Hedge fund

Solution: The SEC

(f) Broker/dealer

Solution: The SEC

5. **Pensions and Insurance**
Defined benefit pension plans and insurance companies both must take in and invest funds for potential long term future payouts. Why do such pension plans run into financial trouble more often than insurance companies?

Solution:

- Pension plans are less regulated and have more risk.
- Pension plans are funded exclusively by employer contributions. Over time, these plans may face deficits or surpluses between the money currently in their plans and the total amount of their pension obligations. However, insurance companies are subject to market demand, part of which considers the rating of the insurance company. This yields a moral hazard for the pension plans that is much smaller for the insurance company.
- Pension plan payouts are much harder to quantify than insurance payouts. Most insurance payouts are capped. Pension plan payouts based on the employee's earnings history, tenure of service and age. This makes it much harder to adequately fund pension plans without over-funding them.