



Problem sets 1: Central banking and money supply process

EE432: Monetary theory and policy

Semester 1/2018

Instructor: Dr. Kittichai Saelee

Due on September 11th, 2018. in class.

1) Discuss about the pros and cons for the central bank independence. How does the modern institutional design of central bank come up with a set of compromised solutions to enhance and ensure the effectiveness of monetary policy?

2) Answer the following questions

2.1) Assume that no banks hold excess reserves, and the public holds no currency. If a bank sells a \$100 security to the Fed, explain what happens to this bank and two additional steps in the deposit expansion process, assuming a 10% reserve requirement. How much do deposits and loans increase for the banking system when the process is completed?

2.2) Explain two reasons why central banks does not have complete control over the level of money supply.

2.3) Does the simple deposit multiplier overstates the true deposit multiplier?

2.4) If the required reserve ratio is 10 percent, currency in circulation is \$1,200 billion, checkable deposits are \$1,600 billion, and excess reserves total \$2,500 billion, calculate the M1 money multiplier. Show your work.

2.5) Explain the complete formula for the M1 money supply, and explain how changes in required reserves, excess reserves, the currency ratio, the nonborrowed base, and borrowed reserves affect the money supply. Also, discuss about the impact of digital currency and financial innovations on the money supply process.