Write your name on the cover of the test booklet and nowhere else. Enclose this sheet with the booklet. The Excel file will be handed in via Canvas. Your name will only appear on a page of the file that has nothing else on it. Failure to follow these directions will cost you 1 point. The test has 100 points (to be scaled up to 170 points) and is scheduled to take 50 minutes (but you can take the full 2 hours.) Therefore, expect to spend 1 minute for every 2 points. For example, a 10-point question should take 5 minutes.

1) (8 points) For EITHER the event in Part A OR the event in Part B, determine what happens to the monetary base, the money multiplier, and the money supply. Briefly explain your logic. (Both of these events are actually happening now.)
A) Consumers decide to keep more money as cash rather than in a bank account.
B) Because of the recent events with Silicon Valley Bank and other banks, banks are choosing to make fewer loans and keep more excess reserves.

2) (10 points) Answer EITHER Part A OR Part B.
A) Use the balance sheet to the right to determine how much excess reserves the bank has. Show all work and briefly explain what you did. How much goes in the spot where the question marks are? Show all work and briefly explain what you did.
B) Suppose that a bank has $100 of excess reserves. If they lend out all of that and all of it goes into a checking account, then how much can they lend out in the next step? Explain how you got that number. If the currency-deposit ratio is zero, and banks only keep the required reserves, then how much would the money supply eventually increase by? Explain your logic and show any work done.

Assets		Liab. & Net Worth	
Loans	1000	Checking Accounts	900
Deposits at Fed	100	Savings Accounts	300
Cash	30	Other	200
Other	???	Equity	90

3) (14 points) Illustrate the effects of EITHER the event in Part A OR the event in Part B on both the balance sheet for the Fed and the balance sheet for the bank. State how you got the entries. What happens to M1 and M2? Explain your logic.
A) The Fed buys a $500 bond from an individual, who puts the money in their savings account.
B) The banks take $300 billion in loans from the Fed. (They did ths in the week prior to 3/16.)

4) (16 points) Answer EITHER Part A OR Part B.
A) Draw the diagram for the fundamental exchange rate and pegged exchange rate as a function of the money supply. Explain why the two lines look as drawn. If we start to the right of the intersection, what will automatically cause the money supply to go to the intersection? Explain why this occurs.
B) Draw the supply and demand for Japanese yen, ¥, with the British pound, £, as the other currency. Draw it so the Japanese government has pegged the exchange rate such that the yen is overpriced. What will the Japanese central bank, The Bank of Japan, be forced to do? Why will the be forced to do that? Can they do that forever? Why or why not?

5) (16 points) Answer EITHER Part A OR Part B.
A) Some economists feel that the central bank cannot set the real interest rate because of the self-correcting mechanism of the economy. Use the IS/LM/FE diagram to illustrate what would happen if the economy started equilibrium and the Fed decided to lower interest rates. How would the economy respond in the long-run to undo what the Fed did? Explain why the curve(s) moved as drawn.
B) Use the real MS/MD diagram to prove that the Fed cannot control both the interest rates and the money supply at the same time.

6) (36 points) Use the data in the Excel file exam4.xlsx to forecast sales through the end of 2018. How much are the seasonally adjusted sales for all months? If their sales for 2020 were $1500, then how much would they expect to sell in March of 2020? Do all calculations in the Excel sheet. If you want to explain anything, then do it on the spreadsheet.