ECON 110, Professor Hogendorn

Problem Set 8

1. *AIG.* AIG is the world's largest insurance company, and it got into deep financial trouble in the 2008 financial crisis. As of September 30, 2008, AIG's simplified balance sheet looked approximately like this (all figures in billions):

Assets	Liabilities
\$400 financial securities	\$913 general liabilites
	\$38 government loan
\$622 other assets	\$71 net worth
\$1022	\$1022

   (a) By late fall 2008, things had gotten worse. It turned out that \$50 of the other assets were distressed, and could no longer be counted as assets. Rewrite the balance sheet, and find the new net worth.

   (b) Things got worse still. There was a decline of 10% in the financial securities. Also, AIG had a new liability of \$35 in credit default swaps. Again rewrite the balance sheet and show the net worth.

   (c) Finally, the government announced a bailout plan. One thing the government did was buy the \$50 in distressed assets at their full face value by giving AIG \$50 in cash. Show how this changed the balance sheet.

   (d) The other terms of the government plan were to lend AIG \$60 (a new liability). AIG took this cash and paid off the credit default swap liability. Separately, the government bought \$40 in shares in the company (again, giving AIG cash). How does this change the balance sheet?

2. *AmherstBank*. The New Bank of Amherst, MA is a small start-up bank. Its balance sheet currently looks like this:

Assets	Liabilities
$2 million bonds	$10 million deposits
$8 million loans	$1 million stockholders' equity
$1 million reserves	

   On further inspection, it turns out that the investment manager for this bank put all the bond money in Greek government bonds. The $2 million in bonds is actually the face value of the bonds when they were initially purchased. The bonds are worth only $1.5 million at today's market price.

   (a) If the balance sheet is "marked to market" to reflect the new price of the bonds, how should it be changed? Does the bank need additional reserves to cover this change?

   (b) Do the bonds now yield more or less than their coupon rate? Explain.

3. *SW25.3* While gardening in his backyard, Bob finds a jar containing $100,000 in cash. He deposits the money in his bank, where the reserve requirement is 5%. Show the relevant changes on the bank's balance sheet. How much will the money supply eventually increase due to Bob's deposit? How would your answer be different if Bob only deposited $95,000, keeping $5,000 in cash to himself?

Review Problems only, not to turn in:

4. *LittleT.* A bank has deposits of $50 million, loans of $52 million, and complies with a 10% reserve requirement. Assuming this bank is properly run, write its T-account.

5. *SW25.2* Down Home Savings Bank has the following assets and liabilities: $6 million in government bonds and reserves, $40 million in deposits, $36 million in outstanding loans. Draw up the balance sheet for the bank. What is its net worth?

Answers to Review Problems:

4. *LitteT_a.* The T-account is:

Assets	Liabilities
$52 million loans	$50 million deposits
$5 million reserves	$7 million net worth
$57 million	$57 million

5. *SW25.2_a* The balance sheet is:

Assets	Liabilities
$6 million bonds and reserves	$40 million deposits
$36 million loans	$2 million net worth
$42 million	$42 million