Chapter 10: **A Note on Insolvency and Illiquidity**

1. A financial institution is a firm that operates on both sides of the financial markets for financial capital (funds). It is a borrower on one market and a lender in another. The objective of a financial institution is to make the maximum profits.

2. The financial institution's business is summarized in **its balance sheet**

a.. The balance sheet is a statement of a firm's financial position as of a given date, listing assets, liabilities and net worth to the owners of this firm).

b. Balance Sheet: Commercial Banks (6/30/2008)

Assets		**Liabilities**	
Cash	$100	Deposits	$1,000
Loan1	200		
Loan2	800		
		Own Capital	100
Total	**$1,100**		**$1,100**

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c. Basic Accounting Equation:

(1) Assets = Liabilities + Net Worth

Assets: Valuable properties or rights owned by the firm (bank).

Liabilities: Money or obligations owed by the firm (bank).

Own capital and other (Net worth): Net value of the firm (bank) to its owners.

(2) Own capital and other (**Net worth) = Assets – Liabilities**.

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3. **Insolvency**: a financial institution's net worth = (the total market value of what it has lent) – (the total market value of what it has borrowed). If net worth > 0 (< 0), the institution is solvent (insolvent). If the institution is insolvent, it will go out of business and stockholders bear the loss. For example, borrower of Loan 1 could not pay back $200, the balance sheet will become

Balance Sheet: Commercial Banks (9/30/2008)

Assets		**Liabilities**	
Cash	$100	Deposits	$1,000
Loan2	800		
		Own Capital	- 100
Total	**$900**		**$900**

It is clear that Net Worth = Assets – Liabilities = $900 – $1,000 = -$100 < 0. The bank is insolvent.

(b) **Illiquidity**: An institution makes long-term loans with borrows short-term funds. It will face "illiquidity" if a sudden demand to repay more of what it has borrowed than its available cash. For example, the customer wants to convert D**eposit** = $200 to Cash. But the bank only has cash = $100 in the bank and cannot repay $200 cash. The bank is ***illiquid***.

4. "insolvency" and "illiquidity" were at the core of the financial meltdown of 2007-2008.

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Fractional-reserve banking

Deposits are money placed in an account at a bank and constituting a claim on the bank. They are payable on demand. However, they are not all withdrawn together. **Reserves equal to total deposits would be necessary if all deposits suddenly had to be paid off in full at the same time, but this almost never occurred.** On a given day, some people make withdraws while others make deposits. These two kinds of transactions generally balanced out. Thus, banks can use the money entrusted to them to make **loans**, or buy **bonds** and other **earning assets**. They find that investing their deposits was beneficial because depositors could still be paid on demand while the bank could make some extra earning.

By putting most of money deposited with them in earning assets and keeping only fractional cash reserve against deposits, banks could **maximize their profits**.

The transformation into fractional-reserve banks – holding fraction rather than 100% reserve against deposits – was **revolutionary**. It enables banks to create money. That is, banks could turn each dollar of reserve into several dollars of deposits.

Making imitation dollar bills is a serious crime. But creating billions of dollars' worth of money is a perfectly legal activity that banks perform every day. In this chapter, you have learned how banks create money by making loans.