

**1. Stress tests** review the effect on each bank's profits and capital of some (historically-based) exogenous shock.

Since prudent measures by banks to maintain their solvency sometimes leads to instability of the whole banking system, banking regulation should address symmetric risk, instead of idiosyncratic risk. In other words, banking regulation should address the risk of breakdowns in the whole system, instead of breakdowns in individual parts. Due to this, making sure the safety of individual banks by stress test may not necessarily ensure the resilience of the whole banking system.

**2.**

**Funding liquidity** describes the ease with which investors and arbitrageurs can obtain funding from financiers

**Market liquidity** is the ability to raise money by selling assets at reasonable prices. In other words, market liquidity is low when selling the asset depresses the sale price.

I can think of two mechanisms through which the above two may have contagious effect in the banking system.

- i. **Contagion/Domino effect:** this effect works through inter bank borrowing. Since banks are interconnected by a web of claims, some banks use borrowed fund from other banks to invest on assets or to rollover claims. Due to this interconnectedness, an exposure to a shock by one bank may have a negative externality on other banks and on the financial system as a whole.

When a bank is hit by credit losses, one way to maintain its solvency is by reducing its overall lending including its lending to other banks. This is a run from other banks perspective and they keep their solvency by reducing their lending and/or by selling assets and so on.

- ii. **Asset price effect:** When financial institutions mark their balance sheets to market, changes in prices lead to losses that may be sufficient to transmit the shocks to other institutions even when they do not hold claims against each other. Losses worsen funding liquidity for many financial institutions, forcing them to

shed even more assets which further depress prices and increases losses, and so on. The loss spiral leads to sharp asset price movements especially at times of financial crisis.

### 3.

Maintaining a capital buffer helps banks to absorb losses on their assets and remain solvent, thereby protecting its creditors. The solvency of each individual bank in turn ensures the soundness of the financial system as a whole.

It also increases the stake of banks in the game and helps to resolve moral-hazard problem (that is, excessive risk taking by the banks).

*Note: almost all of the answers are taken from the lecture note and the recommended reading material.*