Housing Market Price Bubble

–With uncertainty about future prices, a price bubble must grow at the interest rate r on average. If there is a small probability of total collapse in each period, then before the collapse the growth rate is greater than r.

–30 years ago, a bank that issued a mortgage held onto it and took the risk of the borrower defaulting. As a result, they were very careful about who received a mortgage and worried about repayment even if housing values fell. The downside was that banks held an undiversified portfolio of mortgages, all in the same local housing market.

–Financial markets have become more sophisticated. Now the firm giving you your mortgage can sell it off to another institution that forms a *mortgage pool*, from which they sell *mortgage-backed securities*. Ginny Mae and Freddy Mac for mortgages that conform to standard criteria (downpayment, income of borrower), and some investment banks for subprime mortgages.

–New financial markets set up a *moral hazard* problem: Mortgage brokers no longer have to keep the mortgages and bear the risk. Incentive to offer mortgages to those who should not qualify. Companies who evaluate the quality of mortgage pools have too cozy a relationship with the investment banks to provide proper oversight.

–As long as the price bubble continues to expand, borrowers build up equity and stay above water. When bubble bursts, many subprime mortgage holders default. Even some borrowers who could keep making payments find that the amount they owe is more than what the house is worth, and may walk away from the mortgage. As the crisis spills over to the rest of the economy, some borrowers lose their jobs and default.

Adverse Selection (Lemons Market)

–Why have we seen some markets collapse, so that almost no transactions take place at any price, rather than the price adjusting to a new equilibrium?

–Suppose that your financial institution owns a mortgage or a mortgage pool, whose value has declined, but only your firm knows the true quality.

–To be specific, suppose the "qualities" of mortgages in the market are uniformly distributed between 0 and 1, and potential sellers observe their own quality, q. Also suppose that you would be willing to sell the mortgage if the price is above q.

–Suppose there are buyers out there willing to pay $\frac{3}{2}q$ for a mortgage of quality q. In other words, buyers value the asset more than sellers, so there are always gains from trade.

What will be the equilibrium price, p, and how many transactions will there be?

–If the price is p, all mortgages whose quality is below p will be offered for sale. Firms will not sell the high quality mortgages. Since the mortgages offered for sale range in quality between 0 and p, the average quality of mortgages offered for sale will be $\frac{1}{2}p$.

–Buyers are willing to pay:

$\frac{3}{2}\times$(average quality) $= \frac{3}{2}(\frac{p}{2}) = \frac{3}{4}p$.

–No matter what the price is, buyers are not willing to pay the price!

–Given the adverse selection problem, banks are hesitant to lend to other banks, because no one knows how healthy they are. Banks might not even be able to evaluate their own balance sheets, because there is no market price on which to base an evaluation.

–Due to spillovers to firms elsewhere in the economy who cannot get credit, and their workers who have mortgages, expectations of a downward spiral could be self-fulfilling.

–On a hopeful note, policymakers are talking about regulations to provide better oversight to prevent the abuses, and a support system to limit the crisis.