

Notes on the Financial Crisis and Bail Out,
Moderate Skepticism

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I. Background and History of Government Intervention in Housing Market Finance

(1) In the “good old days,” mortgages used to be held by the banks that made loans and so if there were any problems with mortgages, they tended to be concentrated in banks in regions with declining housing prices, unemployment, and net out migration.

(2) This changed in 1938, when Roosevelt founded the Fanny Mae (Federal National Mortgage Association, FNMA). It’s purpose was to add liquidity (demand) to the home mortgage market to facilitate housing sales. FNMA purchased mortgage from banks and insured mortgages, which allowed banks to create more mortgages at lower prices.

(3) Between this policy and the rising incomes associated with renewed economic growth after the WWII, home ownership rates increased from around 43% in 1940 to about 61.9% in 1960. (<http://www.hoover.org/research/factsonpolicy/facts/26963064.html>)

(4) Evidently the 62% ownership rate of 1960 was not “enough,” and the federal government took additional steps to encourage further home ownership. In 1970, Freddie Mac (Federal Home Loan Mortgage Corporation, FHLMC) was established to make loans and loan guarantees. Freddie Mac pooled the mortgages that it purchased, and sold “mortgage backed securities” to investors on the open market. Again the purpose was to increase the demand for mortgages, which would encourage banks to make more loans for housing.

(5) In 1968, Fannie was privatized. Essentially a new management company was created to manage the great portfolios of mortgages, mortgage insurance, and mortgage backed securities already assembled by Fannie.

(a) Neither Fannie Mae nor Freddie Mac formally had backing from the US Government, but most investors evidently believed that US taxpayers would back up those now “private” entities if need be. (And, of course, this proved to be correct in September 2008.)

(b) Their implicit subsidies to housing or insurance risks were no longer on government balance sheets, although they continued to be regulated “government sponsored enterprises.”

(6) The loans purchased and resold by Fanny Mae and Freddie Mac had to meet more or less ordinary standards and had a maximum size. The mortgage-backed securities created by them are “insured,” which “guarantees” to purchasers that both principal and interest will be paid regardless of whether the persons who financed their house purchase continued their mortgage payments or not.

(7) After 1992, Fannie and Freddie were also encouraged to purchase “affordable” mortgages from banks--meaning mortgages that did not pass the usual tests for loans previously demanded by banks who originated the mortgages. US Government encouragement to extend such loans increased until very recently.

(<http://www.washingtonpost.com/wp-dyn/content/article/2008/06/09/AR2008060902626.html>).

(8) This together with subsequent pressure from Congress and Presidents Clinton and Bush helped create a new market in “sub-prime” (e.g. sub-standard) mortgages and mortgage-backed securities. Again Fannie and Freddie guaranteed the securities they issued, but insuring these substandard loans required greater reserves than their ordinary (prime) mortgages. (It is clear now, that **insufficient reserves** were actually put aside).

(a) It bears noting that **bundling and insuring mortgages can be highly profitable.**

(b) For example, suppose that a 100% mortgage is issued on a 250K house. Annual payments on a 30 year mortgage at 6% interest are a bit more than \$18K/yr.

(c) The 6% interest rate includes a risk premium of 1-2%, because some borrowers will ultimately default and the house will have to be reclaimed through court proceedings, during which no income is earned on the loan.

(d) Suppose that a bundler-insurer can lower the risk premium by just 1%. The “discount rate” is now 5% rather than 6%, and the cash flow of the mortgage is now worth more than the house, a bit more than 275K.

(e) The greater is the reduction in risk premium achieved by the “bunder-insurer,” the greater is the “profit” (as long as one does not have to actually pay much out on the insurance provided). For example, if the risk premium falls by 2%, the discount rate becomes 4% and the value of the mortgage’s cash flow becomes a bit more than 310K, **more than 25% greater than the value of the house standing behind the mortgage.**

(f) Because of this risk-premium effect, bundling sub-prime mortgages can be much more profitable than bundling prime mortgages--as long as default levels are below average and/or risks can be reduced through diversification.

(g) The implicit backing of the US government made Fannie and Freddie's insurance promises less risky than that of other private competitors, and so allowed greater profits. Together Fannie and Freddie had issued more than 60% of mortgage backed securities in 2002.

[http://www.economist.com/finance/displaystory.cfm?story_id=E1_TNPVJRV]

(10) From 1998 through 2006, there was a great housing boom in much of the United States, indeed much of the world, partly induced by the new sub-prime loans and the Fed's policy of holding interest rates down during most of the period following 9-11.

(a) Existing house prices were bid up as mortgages rates fell.

(b) Rising house values reduced delinquencies, because the increased value of the house allowed mortgages to be refinanced to solve cash flow problems that naturally occur for a subset home buyers (especially those taking out sub-prime mortgages).

(c) The rapid rise in real estate prices induced speculators to join the market as purchasers of houses, mortgage bundlers, and purchasers of sub-prime loans.

(d) Because delinquency rates were below average, there were great profits to be made by bundling and insuring sub-prime mortgages--as long as house prices continued rising.

(e) In 2004, home ownership rates peaked at 69.2 percent, and prices began to fall in many parts of the country. (Home ownership fell to 67.8 percent in mid 2008.)

(11) Several proposals were made in the last decade to tighten and/or depoliticize oversight of Fannie and Freddie, but few were able to secure majorities in Congress, in part because of the lobbying efforts of Fannie and Freddie were successful, and in part because promoting home ownership was a popular cause.

(a) It was only in 2002 that Fannie and Freddie began filing the same quarterly and annual financial reports as other financial firms. (They had previously been exempt from the 1933 Securities Act).

(b) The largest issuers of mortgage backed securities were also among the greatest owners of them, holding more than a trillion dollars of them, for example, in 2002.

(http://www.economist.com/finance/displaystory.cfm?story_id=E1_TNPVJRV)

(c) In 2004 the *Office of federal Housing Enterprise Oversight* filed a 200 page report in which:

We have determined that Fannie Mae, in developing policies and practices in these critical areas, has misapplied Generally Accepted Accounting Procedures (“GAAP”), specifically Accounting for Nonrefundable Fees and Costs Associated with Originating or Acquiring Loans and Initial Direct Costs of Leases (“SFAS 91”) and Accounting for Derivative Instruments and Hedging Activities (“SFAS 133”).

The misapplications of GAAP are not limited occurrences, but are pervasive and are reinforced by management. **The matters detailed in this report are serious and raise concerns regarding the validity of previously reported financial results, the adequacy of regulatory capital, the quality of management supervision, and the overall safety and soundness of the Enterprise.** (Bold in the original report, pg. 6; Dikerson, C.H., Chief Compliance Examiner, “Report of Findings to Date, Special Examination of Fannie Mae,” OFHEO, 2004, Washington DC.)

(d) (Of course, similar accounting irregularities that overstated profits are very likely to have been present in other large commercial enterprises as well, who can shop around for pro-management accounting and rating firms, which is the reason for GAAP standards.)

(e) In February of 2005, Fed chairman Alan Greenspan urged Congress to do something to rein in Fannie Mae and Freddie Mac. “We are placing the total financial system of the future at a substantial risk.”

(12) The problems that emerged in 2008, were, thus, **not a complete surprise**, although prior to the meltdown, only a minority took the system-wide financial risks seriously. Congressional hearings had been held and financial columns in newspapers and news magazines had analyzed the risks associated with Fannie and Freddie, and with mortgage backed securities generally, in a long series of articles throughout the past decade.

[http://www.ft.com/cms/s/0/e3e1d654-5288-11dd-9ba7-000077b07658,dwp_uuid=5db90a0e-4e6c-11dd-ba7c-000077b07658.html]

II. The “Credit Crisis:” the end of the housing bubble induced a fall in the price of formerly “safe” mortgage-backed securities

(1) As long as housing prices rose, the asset values of the houses supporting the sub-prime mortgages were sufficient (indeed more than sufficient) to support those somewhat risky loans, which together with refinancing allowed relatively high profits for mortgage bundler-insurers like Fannie Mae and Freddie Mac.

(a) Unfortunately, the speculative housing “bubble” burst in 2005-6, and housing prices began to fall for the first time in more than a decade.

(b) This was the **first significant US-wide housing price fall since the recession in 1992**, and the fall was much greater and faster than in that recession. (Average US House prices peaked in 2006, and fell by about 18% in the next two years.)

[http://www2.standardandpoors.com/spf/pdf/index/csnational_value_082653.xls]

(c) Diversifying across regions of the country could not reduce this risk, as average house values fell throughout the United States. (Indeed a few real estate bubbles also “burst” in other countries as well at about the same time.)

(d) The reduction in house values in much of the US tended to reduce consumer spending, which slowed the economy down somewhat.

(e) Together the reduction in house values and reduced economic growth made all those sub-prime and prime mortgages somewhat riskier, as the asset value of the house supporting the mortgage was in many cases less than the value of the outstanding mortgage, and, thus, refinancing to ease borrower cash flow problems was no longer possible.

(f) Delinquencies increased very substantially, foreclosures rose to unusually high levels, and insurers of mortgage backed securities had to pay their “insurance claims” (make the interest payments that delinquent borrowers were not making).

[Delinquency rates were exacerbated by the almost fraudulent lending practices of many loan originators, house price assessors, and some builders.]

[<http://www.hoover.org/research/factsonpolicy/facts/15077796.html>]

(2) Most mortgages and mortgage backed securities, nonetheless, initially remained relatively “low risk” assets, nonetheless, because most were **insured** by Fannie Mae, Freddie Mac, and other mortgage and mortgage-backed security insurers.

(a) About half of all mortgages and (therefore) mortgage backed securities are insured by Fannie Mae and Freddie Mac. Many others were insured by other private organizations.

(b) A variety of new credit instruments and diversification techniques had produced a great assortment of financial “assets,” many of which were ultimately based on mortgage (and credit card) payments.

(c) However, in hard times, the insurance is only as good as the “insurance companies” and “assets” backing the loans.

(d) The new diversified assets were rated by companies such as Standard and Poors and Moodys, and AAA (low risk) ratings could be obtained for nearly every combination of the

new financial assets by adding a “safe asset” to the mix--such as mortgages or mortgage-backed securities.

However, the rating firms made little effort to track the performance of the portfolios they had rated, evidently because it was not a source of profits (10-22-08, Congressional testimony by former senior S&P mortgage rater).

Bundling of uninsured mortgages had been used to diversify risks, and the AAA ratings meant that even uninsured mortgage backed securities were considered to be relatively safe, and were purchased at premiums above the value of the houses backing the less than prime mortgages.

(e) In such cases the rating, in effect, certifies the existence of “insurance” although only in the sense that the **security raters assure investors** that reasonable efforts have been made to financial techniques for hedging (reducing risks). Such assurance were given to a broad array of complex financial assets, such as credit-default swaps, in addition to more conventional principal and interest guarantees.]

(3) **As housing prices began to fall** even more rapidly than they had been rising and economic growth diminished, **delinquencies and foreclosures increased** (especially among sub-prime mortgages), and the **mortgage insurers began to payout** more than they were taking in fees and interest.

(a) Evidently, the insurers of mortgage backed securities had assumed (or hoped) that housing prices would rise forever (or at least not fall very much), which essentially meant that **they needed only sufficient reserves too carry properties through bankruptcy courts, after which the house would be resold and interest payments would be resumed (from new buyers, whose mortgages were also likely to be purchased).**

(b) Unfortunately **the reserves that had been more than adequate during the housing boom turned out NOT to be sufficient** during the ensuing unusually rapid decline.

(d) As housing prices fell rapidly in many parts of the country, reselling houses took longer (requiring insurers to make up more missing interest payments) and because the houses sold were less valuable than they had been in the recent past, it reduced the interest payments from the new loans taken out by successive home owners.

(4) The insurers of mortgage-backed securities began to empty their reserves. This was not simply a cash flow problem that could be solved with a bit of temporary borrowing.

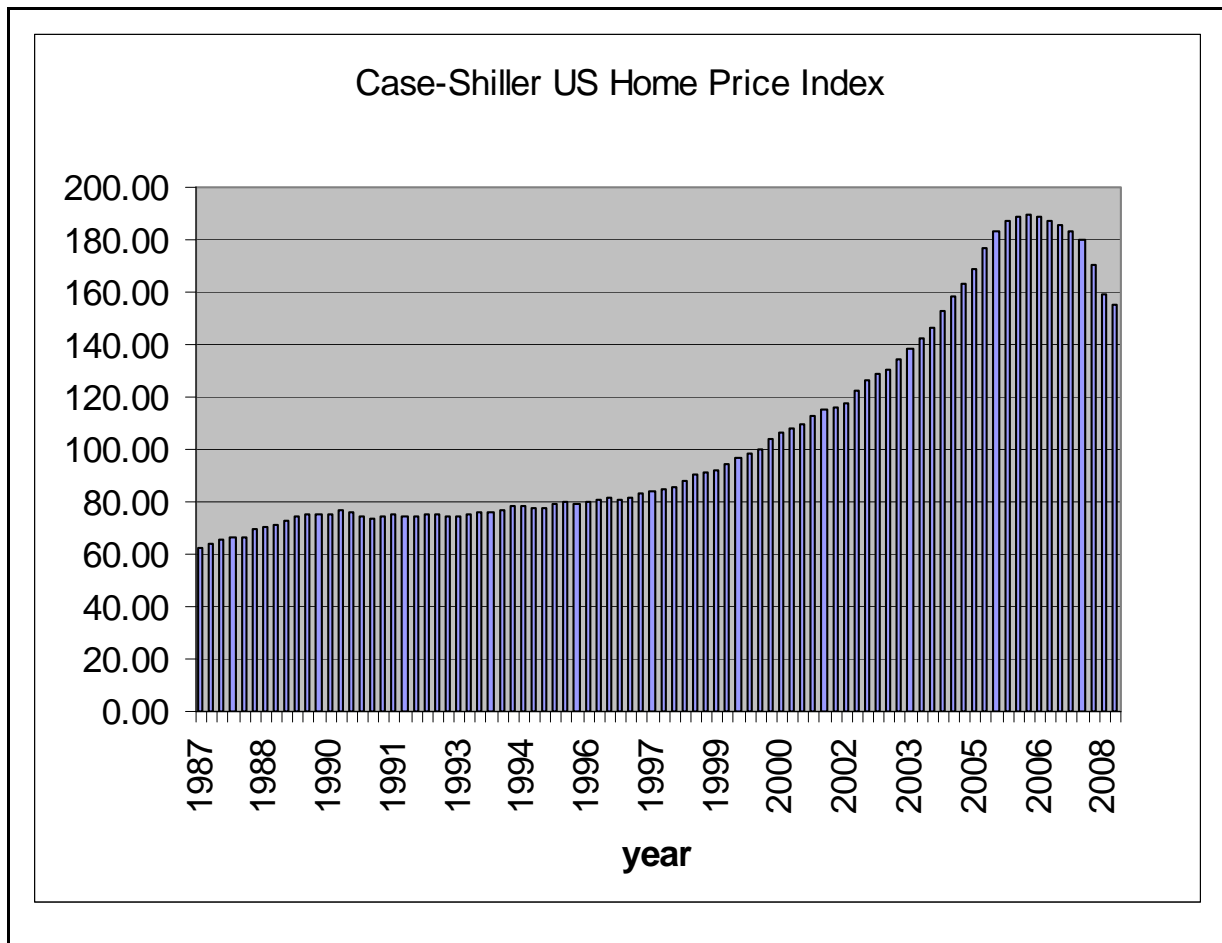
(a) As insurer losses accumulated, the stock prices of insurers naturally fell, which meant that they could not raise new money to make their “guaranteed payments” to mortgage backed security holders by selling stock.

(b) At the same time, Freddie, Fannie, and other insurers saw their **credit ratings rapidly decline** as the credit-rating agencies revised their estimates of future insurance losses. Insurers could not longer borrow to pay claims in the short run.

(c) Similar financial losses were being borne by owners of other mortgage backed securities that had previously been uninsured or bundled or blended with insured assets, and also of those owning stock in the large (presumably safe) insurance companies backing mortgages and mortgage backed securities.

[A very broad range of the new hugely popular and internationally held AAA diversified debt instruments included both sub prime mortgages and credit card debt.]

(d) **Losses accumulated** as payments to those insured exceeded payment from those holding the mortgages, and several major insurers went bankrupt, as their insurance obligations exceeded their assets (many of which included mortgages or relatively safe mortgage-backed securities, which were falling in value). [Bear Stearns, Fannie Mae, Freddie Mac, etc.]



(4) The (effective) **end of mortgage and mortgage-backed security insurance had two effects.**

(a) First, by increasing the risk premium for mortgage-based assets, all those assets became less valuable.

[In the illustration above, the value of insured mortgage-backed securities falls from 310K to 250K, (or less) if risk premium increase by 2% (or more). The greater the increase in the risk premium associated with particular securities, the greater the reduction in asset value, and thus their ability to serve as collateral for loans and for making investments.]

[This made the balance sheets of all holders of such assets much worse than they had been before their insurers had defaulted, declared bankruptcy, or simply were perceived to be less reliable than in the past.]

(b) Second, those managing portfolios of various kinds at investment banks, insurance companies, pension funds, etc. all attempt to manage their portfolio's overall risk.

The insurance that stood behind the majority of prime and sub-prime mortgages evaporated, and mortgage backed securities, both sub-prime and prime, became far more risky assets than purchasers had imagined when they bought them. Many of the asset ratings and firm credit ratings were revised, while the ratings themselves were no longer regarded to be trustworthy.

In the new (under-uninsured) circumstances, most owners of mortgage backed securities now had too many risky assets in their portfolios and tried to sell those securities in the usual way.

(5) **The mortgage-backed securities market is a huge market, so both effects had large consequences for financial firms and financial markets. Moreover, the portfolio effect reinforced the risk premium effect, because essentially everyone was trying to make the same portfolio adjustments at essentially the same time.**

(a) **There were many more sellers than buyers, and prices for mortgage backed securities plummeted** (as predicted by the elementary economics of supply and demand).

(b) For less important assets, this would not be a significant problem, **but U. S. real estate is a major asset in the world-wide wealth portfolio, on the order of 12 trillion dollars. and about 7 trillion of real-estate loans have been securitized as “mortgage backed securities”** and sold worldwide.

[The Bond Market Association reports that the secondary mortgage and mortgage derivative market has been larger than the US Treasury note and bond market since 2000.]

(6) It is because the modern mortgage security market is so large that failure of this market to “clear” represents the “largest financial” problem since the fall of Wall Street at the beginning of the great depression.

[Previous real-estate bubbles and leveraging problems were all smaller than this one, because they affected only a subset of mortgages, banks, and regions. So, they did not have worldwide consequences.]

III. How bad is the crisis?

(1) It bears noting that most mortgage backed securities are still very safe, and even sub-prime mortgages and their derivatives are reasonably secure (in the medium run), because most borrowers (90+ percent) continue to make their mortgage payments and their mortgages are backed by the value of the houses loans were taken against.

(a) House prices have fallen and are often now below those of the loans that they support, but they have on average fallen by 20% rather than 80% of their peak value.

(b) The asset value of the house, however, is only the final guarantee of mortgage backed securities without insurance. Having lost 20-30% in value from the loss of insurance guarantees, further losses were induced because the resale value of the house values fell, and uncertainty about how far prices would eventually fall.

(c) Some newspaper accounts place the total loss of market value of mortgage-backed securities at between 70-80 percent, which if true, implies that something on the order of 5 trillion dollars of financial wealth disappeared from the system. **Even if only half of the value has disappeared, the losses would be greater than 3 trillion dollars.**

[To put this number in perspective, the US government’s outlays in 2008 are approximately 3 trillion dollars. The total capitalization of all the World’s stock markets are on the order of 50 trillion dollars in 2008.]

(2) As a consequence of the reduced value of mortgages and mortgage-backed securities, the asset side of the ledger of most financial companies fell significantly during the past year.

(a) This was perhaps clearest of firms that became bankrupt, because the value of their assets fell below their liabilities.

(b) But the same sort of problem applies to all firms required to “mark to market,” because the market value of a significant fraction of their assets fell to a fraction of their original cost, greatly reducing their “working capital.”

(c) The credit market shrank, mostly for the entirely sensible reason that firms had less to loan (the true value of their portfolios was lower than they thought), but this response has been exaggerated because markets for this one kind of asset had failed to clear at long-run equilibrium prices [and also by the gloomy predictions of “credit collapse” by government and business leaders].

(3) **Other parts of the credit market**, which more directly affect the public and real sector of the economy, have so far **continued to function more or less as normal**.

(a) According to federal reserve statistics **essentially all areas of credit continued to expand** during 2007 and 2008.

(b) This includes car loans, mortgages, commercial credit, and credit card debt, although the growth rates of credit have declined somewhat and delinquencies are up for most types of credit.

[The federal reserve numbers for credit are available through mid September 2008.]

[<http://www.federalreserve.gov/releases/G19/Current/>]
[<http://research.stlouisfed.org/fred2/series/COMPAPER>]

(c) Subsequent work by researchers at the Minnesota Federal Reserve affirms this result through mid October 2008. Indeed credit demand (and supply) outside the financial sector has increased during 2008, and very rapidly so in the past two months, both because of the recession (and associated cash-flow problems) and because of fears that credit might eventually dry up. (<http://www.minneapolisfed.org/research/WP/WP666.pdf>)

(4) In this respect, the “credit crisis” has, so far, **been greatly exaggerated** by proponents of the 700 billion dollar augmented Paulson plan to purchase mortgage backed securities (etc.), and subsequent efforts to expand the regulatory authority of the Treasury, FDIC, and Federal Reserve.

(a) The lack of a major collapse of credit is partly because the Federal Reserve system has provided a good deal of short term credit to regulated banks and other banks, which allows them to continue servicing credit cards, car loans, small business loans and so forth, even if they hold mortgage-backed securities on their balance sheets.

[<http://research.stlouisfed.org/fred2/series/BASE>]

(b) It also because with the take over of Fannie Mae and Freddie Mac, about half of US mortgages are once again insured, by U. S. taxpayers, which should restore about half of mortgage-backed securities to their former “safe” prices.

(c) The FDIC has also done a good job of minimizing disruptions as banks holding the “wrong mortgages” approached bankruptcy, by encouraging quick sales of entire banks.

(d) That is to say, the augmented Paulson plan *is not the only response* to the US and international financial problems.

(e) As a consequence of preexisting institutions, the illiquidity of mortgage backed securities has not so far affected the real economy very much.

(5) The collapse of the mortgage-backed securities market has, however, had major effects on a broad cross section of firms specializing in finance of various kinds, and of course indirectly on the stock market (as investors attempt to shed risk, and trade stock for cash and government securities).

(a) The gloomy forecasts that dominate the Congressional hearings and newspapers are also inducing ordinary persons to flee from the financial market, placing other firms under stress and further reducing stock values, which further undermines the credit worthiness of both borrowing and loaning institutions.

(b) Loans are also being made more carefully than before, with a greater regard for creditworthiness, which will imply that many folks and firms that want loans will not be able to get them.

(6) There have been several bankruptcies of unusually large financial firms. However, it bears noting that the firms that failed are unusually large, because of deregulation in the past decade or two, which allowed a great deal of inter and intra state mergers and consolidation to take place, and because of the internationalization of finance.

(a) In previous times, there would have been many more bankruptcies, but of smaller firms. For example, about 750 saving and loan banks failed during the S&L crisis of the late 1980s, with 400 billion dollars of “book” assets.)

(b) The assets of the failed S&Ls were taken over by the US Government agencies, and turned out to be worth about 25% less than their book value. US taxpayers lost about 90 billion dollars in the process of buying and selling those assets.)

[<http://www.gao.gov/archive/1996/ai96123.pdf>]

(7) If a general credit crisis is coming, it will be in the future, as Yogi Berra might have said. However, whether it comes or not, the financial effects of reduced wealth and increased uncertainty are still likely to deepen and lengthen the recession.

[It also bears noting that an extreme recession IS NOT underway, at least not yet. Unemployment for the US was 6.1% in September 2008, with state levels

varying from 3.3 to 8.7 percent. In most states unemployment has increased by between 1-2% in the past year, although unemployment fell in two states. <http://www.bls.gov/news.release/laus.nr0.htm>)

(8) This is not to say that the effects of the fiscal crisis are entirely within the financial sector, although to this point, they are concentrated there.

(a) Reduced wealth reduce expenditures by all investors, but especially for retired persons (with 401K accounts), similar persons thinking about retirement, and relatively wealth persons who live off their stock and bond portfolios.

(b) Banks with weaker balance sheets will adopt tougher guidelines for the credit-worthiness of persons that they are willing to make, and fewer loans will be made.

(Many financial institutions have less working capital to lend and so will tend to be more careful, at least in the short run.)

(c) These changes will affect the real economy by reducing consumer purchases of goods and services, and investments by firms that use credit rather than self-finance for purchasing new equipment and organizational expansion.

(d) Increased uncertainty generates similar real effects for all risk averse consumers and investors.

(e) Such real effects have been evident in unemployment numbers during the past year, but they may be no larger than normal in a typical post-war recession.

[Alan Melzer, a distinguished monetary economist at Carnegie Mellon believes predictions of a “great depression” to be fear mongering. Much of the lobbying behind the bailout bill(s), of course, comes from the financial sector.]

IV. The Augmented Paulson Solution (a solution for “half” of the problem?)

(1) Treasury Secretary Paulson’s initial proposed solution is to increase the demand for mortgage backed securities and drive their prices back toward “reasonable” long term equilibrium levels (what ever those might be).

(a) If the problem is that no one wants to buy uninsured mortgage backed securities, then why not have the government (tax payers) buy them and hold them until markets reach “more reasonable” prices?

(b) The original Paulson plan is a simple solution--but it requires a very large issue of government debt to serve as a buyer of last resort for “troubled securities.”

(c) 700 billion dollars is about 10 percent of the (pre-collapse)market for mortgage backed securities.

The US Debt is currently approximately 10 trillion dollars, so this requires about a 7 percent increase in the debt of the United States.

The deficit last year was about 250 billion dollars (down from >400 billion a few years ago), about 2 percent of GDP.

(d) Borrowing the money to fund Paulson’s program requires a very large sale of government bonds in a very short period. This will require selling three-four times the usual annual sale of bonds in 2009.

(2) **Congress has added a variety of oversight provisions, reduced by half** the initial resources available to the treasury for the first several months, **added a new insurance program**, and increased the FDIC insurance for bank deposits from 100K to 250K.

(a) The new insurance program is to be self-funding, although it reduces funds available for purchases of mortgage backed securities, dollar per dollar of assets insured. It does, however, address the root cause of the problem in a manner that the purchase plan does not.

(b) The bill has also includes **provisions for resources to be used to “keep persons in their houses”** where possible.

(c) It also requires sellers of mortgage backed securities (and other assets) to sacrifice somewhat--by possibly providing preferred stock and by reducing the tax deductability of employee salaries above 400k.

(d) The Senate bill passed on 10/1, added a variety of bells and whistles, including extension of environmental and other tax credits, some minor tax reforms, and an increase in the limit on FDIC insured accounts at ordinary regulated banks from 100K to 250K. About 2/3 of the 450 pages in the bill have nothing to do with the financial crisis.

(3) **The main financial provisions of the package address the two major problems:** (i) the Paulson part of the plan increases demand for mortgage backed securities, increasing their liquidity, and (ii) the House Republican part of the plan provides new insurance guarantees (that replace ones that had previously existed) for most of mortgage-backed securities.

(a) In addition, the increase in FDIC insurance limits from 100K to 250K will reduce “silent” runs on banks that take place when large depositors shift their funds among banks to avoid risks associated individual bank failures, as evidently occurred at Wachovia.

(b) Also to the extent that the bill takes “gloom and doom” forecasts of the front pages, passing the bill may also help stabilize market psychology, for that reason as well. All the gloomy forecasts of leading government figures cannot be good for markets!

(4) How much this “bailout program” costs taxpayers in the long run depends on the price paid for the securities purchased, the pricing of the insurance program, and future prices and failure rates.

(a) If done responsibly, the major parts of the program should cost **far less than 700 billion** dollars, in the long run.

(b) By indirectly reducing the fall in the value of house and in financial portfolios, the augmented Paulson plan should reduce the extent of the recession (if it does not raise interest rates very much).

(c) However, we know from past experience that government programs often cost more than they should, and this is likely to be true of this program as well. Moreover, this program is not the only bailout program being supported by tax payers.

(d) With a bit of luck, the **final cost** will be less than a year or two of the Iraq war.

[The “bailout” after the S&L crisis in the early 1990s cost approximately 20% of the mortgages and other assets taken over by the government. So a **reasonable first guess is that the net cost of the Fannie Mae, Freddie Mac, and Paulson programs will be 200-250 billion.**]

[<http://www.gao.gov/archive/1996/ai96123.pdf>]

IV. Is the Augmented Paulson Plan Likely to Help?

(1) The main purpose of the augmented Paulson plan--as adopted by Congress and discussed in Congressional hearings--was to allow the market for mortgage-backed securities to return to more “normal” prices.

(a) The fall in market prices for these assets (by 70-80%, according to press accounts) may well be exaggerated, at least in the short run, although based on the back of the envelop calculations above, reduction of 50% do not seem unrealistic for sub-prime backed mortgages, unless they are reinsured.

(b) The property backing those mortgages has not fallen by 50%, even allowing for bankruptcy costs, but the risk premiums of mortgage-backed securities have increased.

(c) The extent to which risk premiums can be reduced depends on participation in the new insurance program and in the size of the excess supply of mortgage-backed securities at the government's purchase price.

(2) By increasing the short run market clearing price--e.g. the "market failure"--it should reverse many of the portfolio and credit effects caused by the decline in mortgages and mortgage backed securities, and also reverse somewhat the slide in stock market values, (indirectly) through those effects.

(a) The purchase program (TARP) increases demand for the "troubled assets" which naturally will increase their price.

(b) The insurance plan extends insurance to uninsured mortgages and mortgage-backed securities, which, by reducing their risks (guaranteeing a minimum price) would have similar effects.

(c) Both aspects increase the expected return from assets that many want to sell but few want to buy, which by increasing the price of those assets will improve balance sheets throughout the world.

(d) The positive wealth effect of the program will reduce, but not eliminate, unemployment and bankruptcies in the next year or two.

(e) And, by speeding up the return to normal markets for those securities, the "bailout plans" (government purchase of mortgage backed securities) could reduce the depth of the recession and shorten it.

(f) The (temporary) increase in insurance coverage for bank deposits and money funds will reduce shuffling of liquid assets to safer havens such as smaller insured accounts and treasury bills, which have been bid up to historic prices (and low interest rates, indeed below zero in real terms).

(3) The exaggerated fall (panic?) in prices for mortgage backed securities, together with increased volatility throughout the entire financial market, would otherwise tend to **reinforce and deepen the current recession**, by reducing wealth and increasing uncertainty.

(4) **So far, however**, the planned purchase of assets has been minor compared to the purchase of **preferred shares** in major and minor banks. Nearly a third of the allocated money (250 billion dollars) have been devoted to that purpose.

Much of this money is going to former investment banks, including Goldman Sacs, the firm formerly headed by Treasury Secretary Paulson (some 50 billion dollars).

Half is devoted to providing new capital to the 9 largest banks in the US (125 billion) although not all banks are enthusiastic supporters of the plan, which includes a variety of restrictions on salaries etc., and **bank regulations had to be adjusted to allow the particular type of preferred shares purchased to count as capital.**

[In the media, this purchase of preferred shares is referred to as nationalization of the banking system, which is, of course, hyperbola, insofar as the shares are non-voting and are a relatively small fraction of the book value of the banks.]

(4) Both the planned program **and the program implemented to date have some risks.**

(a) The “injection” of capital into the banking system through purchase of preferred stocks--rather than the usual money supply and FCIC instruments, direct and indirect control of major firms is being transferred from private institutions to the central government’s regulatory bodies.

By providing a precedent for vast new regulations of the private sector (through loans and preferred stock purchase) without explicit Congressional authority, the power of federal regulators has been expanded in an unprecedented manner.

This (unvetted) expansion of regulatory authority creates additional uncertainty for firms in those regulated markets and creates new opportunities for corruption and error.

[Insofar as the original Paulson plan buys assets at above market prices, there are very likely to be decisions about “whose” securities to purchase, which creates opportunities for partisan advantage and for corruption.]

These policies also create a new precedent and justification for (partial) nationalization of private assets by government officials, which tends to undermine quasi-constitutional constraints on US government policies.

That these steps are taken quickly in a crisis, imply that errors are very likely to have been made--some of which may be long term (Congleton, 2005) .

(b) By selling so many bonds in such a short period, the augmented Paulson plan could put upward pressure on interest rates and encourage flight from US financial assets, both of which would exacerbate rather than help the problem.

[Borrowing a trillion dollars (250 billion deficit + 700 billion bailout) requires the largest one-year issue of government debt ever, and proportionally the largest since WW II.. The previous maximum debt issue was 412 billion in 2004.]

[It also allows investors to more easily flee the stock and bank sectors, which **can actually exacerbate the credit crisis being addressed.**]

[This large sale of treasury debt could, itself, have **interest rate effects** that make borrowing more costly for the private sector, and puts downward pressure on the dollar in world currency markets.]

[This effect will be moderated by investor demands for safe assets to replace their previously “safe” mortgage securities, although again it puts downward pressure on stocks, housing, etc.]

[In principal, the mortgage backed securities could be paid for directly with treasury bills.]

(c) And it is quite possible that even a 700 billion dollar purchase of mortgage-backed securities will not be sufficient to return the market to normalcy.

[The market value of many mortgage-backed securities that are not purchased by the government will not increase very much, leaving many firms at risk because they continue to find themselves under capitalized. This is evidently why so much money has been shifted from “tainted” asset purchases to preferred shares of major commercial banks, although it has not been stated publicly.]

[The augmented program’s insurance provisions may work better in the long run, because it covers all mortgage backed assets rather than, and returns the market to a position similar to that which existed before private insurers had all failed or become risky themselves.]

(d) The issue of debt to finance the purchase program may not, itself, significantly reduce the depth or length of recession, insofar as it increases interest rates or reduces the value of the dollar.

[Moreover, if Ricardian equivalency is taken seriously, taxpayers will also realize that their future tax obligations will increase as a consequence of the debt issue, and will reduce their current consumption to put money aside for their future tax increases. (Barro, 1974)]

(5) It is important to **keep magnitude of both the problem and “bail out” plan in perspective.**

(a) **First**, it is important to remember that the “bail out” plan **is not the only thing being done**, and it is not in any obvious way going to “save” the financial system by itself, or end

the recession that we have evidently been in for the past year--at least as far as rising unemployment is concerned.

(b) The efforts of Fed and other central banks to keep **banks liquid** should be enough to keep the present problem from causing a “great depression-like” meltdown of the entire financial system.

(c) **About half** of the market in mortgage backed securities is already reinsured through Fannie Mae and Freddie Mac, so risks are minimal for persons holding securities issued by those two entities, although **tax payers are likely to have to make net payouts**, because neither of these “firms” had adequate reserves to support their insurance obligations.

(d) The FDIC and Fed have worked well to insulate the regulated banking system from most of the credit crunch in the less regulated “non-bank” parts of the financial system.

(e) **Second**, the great depression talk and “fear” mongering being used by proponents of quick action are also helping to make markets more volatile, **as such gloomy forecasts will be new to many investors**, who may consequently want to radically adjust their portfolios.

[It is quite possible that all of the talk of great depression are causing a serious problem to be worse, as for example 401Ks are shifted to safer assets and banks hesitate to make ordinary loans--even if it does increase the odds that a Paulson bill will pass.]

(4) Is the augmented “tarp” program the best of all possible programs?

(a) Evidently not, insofar as the Treasury has shifted from tarp to purchases of preferred stock.

(b) The original tarp program should help solve the short run problem (an excess supply of mortgage-backed securities), which is itself partly a matter of past regulatory mistakes, excessive support for house purchases, and easy money.

(c) Given time, the self-financed insurance program added to the bill by House Republicans is a better arrangement for taxpayers and financial markets, partly because it could be essentially self-funding, and partly because it more directly addresses the root problem.

(The fundamental problem is caused by increased risk, not really insufficient demand for securities, per se, and has been exacerbated by “panic,” partly caused by the great depression talk of senior government officials.)

(5) **Other policies also have to be adjusted if we are to put this problem behind us.**

(a) Some thought about **more prudent ways of encouraging home ownership** should be undertaken. Clearly sub-prime mortgages are not the best vehicle for this social policy.

(b) This indirect manner of subsidizing house purchases, evidently only temporarily takes it off the government's balance sheet, and may well prove to be more expensive than direct subsidies for marginal home buyers.

[If taxpayers spend “only” 210 billion dollars net on the Paulson plan and reinsuring the Fannie Mae and Freddie Mac securities, they could have purchased 1.4 million 150K town houses and condos, or provided a 20% subsidy for 7 million townhouse and condo purchases.]

(c) **New regulatory regimes** should take greater account of the internationalization of financial markets, and its greater speed and interconnectness.

(d) At a minimum, such regulations should produce greater transparency about the nature of the assets in various derivatives, about the size of these markets, and their capitalization. Markets cannot do their magic, unless, at least some good information is available about risks and returns for all the assets in the market.

(e) Even honest “insiders cannot do it all. “Trust” and theories of asset pricing can take world financial markets only so far.

[Many investment firms also evidently need better internal regulation and incentive structures. A few bad apples or decisions can ruin great financial firms.]

(f) Some more **aggressive application of anti-trust law** in the financial sector might also be contemplated.

When a few firms with poor management or mistaken theories can cause an entire financial system to become dysfunctional, perhaps it time to diversify “our” portfolio of managers by shrinking the average size and increasing the number of financial firms.

(g) There is some confusion about the link between the sub-prime mortgage problem and the recession being generated by “deflationary pressures”

Most economists tend to think of deflation as a monetary phenomena, because our financial system has been until recently grounded in “money-like” assets.

However, the great expansion of sub-prime and prime mortgage securities provided a new real-estate base of credit, which has out-stripped the money-based system for the past ten or twenty years.

The result is that the great melt down in real estate here and in several other places around the world, has reduced the real-estate equivalent of the monetary base, and induced a great reduction in the supply of credit anchored on real estate.

The Fed can effectively deal with the money-based pool of credit--which it has been expanding enormously. Whether it can do so enough to offset the multiplier effects in the real-estate based credit pool is far from obvious. (The lower capital requirements in the less regulated sector that relies on those instruments implies a larger multiplier effect.)

It is for this reason that intervening to establish a floor on housing prices is likely to help reverse the financial meltdown.

Executive Summary, so far the credit problem is concentrated in one large class of assets, and has had relatively small effects on the real economy (the part that produces goods and services and hires most people). For many firms holding mortgage backed securities, this is not a life and death matter, although reductions in the value of those securities weakens their balance sheet and hence ability to make future investments.

(a) The true “crisis” is concentrated on firms that hold and insure large blocks of prime and sub-prime mortgages and mortgage-backed securities, especially highly leverage firms that count on routinely “rolling over” loans for their business.

(b) Banks holding mortgages in areas of the country where the housing bubble was most extreme and where the number of sub-prime mortgages was greatest are also at risk--as they have always been in periods after a real estate bubble collapses and during recessions when more people fall behind on their debt payments.

[(a) was true of essentially all the major Investment Banks, Bear Stearns, Lehman Bros, Merrill Lynch, Goldman and Sachs, Morgan Stanley, etc.. Their businesses relied on easy access to credit, and when one of their main “ assets” (mortgage backed securities) became less safe, they could no longer borrow. They unexpectedly had *less valuable* assets to secure their own loans, and without sufficient assets they became essentially bankrupt. (b) was true of the large bank Washington Mutual and partially for Wachovia.]

(1) Bankruptcies always increase with recessions and as housing bubbles burst, so there is nothing particularly extraordinary here

(a) What is extraordinary, is that the “suddenly” risky assets are so **widely held** and that “everyone” wants to sell them at the same time--causing their price to fall to “unreasonable” levels, that only the most desperate sellers will accept.

(b) The size of the excess holdings of the mortgage backed securities is so large, that it will take markets quite a while to work through this problem--longer than it would for smaller narrowly held assets.

(c) It bears noting that the **problems facing highly leveraged firms are different** from those facing firms that simply hold more mortgage-backed securities than they currently believe to be prudent. Firms that rely on continuous borrowing to finance speculative gains have a much tougher time dealing with reductions in their “ base” than other firms. The problems of such very highly leveraged firms is fairly common in the financial sector.

(2) The current plan, if well managed, can mitigate problems associated with the inadequate demand and loss of insurance, but not completely reverse it. Some losses are “real.” Current credit problems and the decline in the stock market are probably being exacerbated by many government “forecasts” of another Great Depression.