

The Mortgage Mess, the Press, and the Politics of Inattention

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On January 28, 1986, space shuttle Challenger broke up on takeoff from Kennedy Space Center. President Reagan set up the Rogers Commission to identify the causes of the crash. Professor Richard Feynman famously identified a faulty O-ring as the proximate cause, and NASA's broken safety culture as the deeper cause.

Fast forward 21 years and switch to the housing finance crash that took place in late 2006 and early 2007. In this case, there was no expert commission. The episode has been baptized rather than understood (Foote, Gerardi, and Willen 2012). Policy makers are busily curing the name and ignoring the illness.

Why was expert light shed in the case of the shuttle but not in the case of housing finance? To appreciate the forces at work, consider a game among players of four types: scientific experts who are technically capable

of analyzing complex outcomes; the press which serves the public as an information intermediary and a source of reading pleasure; the voting public; and the policy makers. In an idealized process, when a bad event occurs, the experts are called in and issue a report, the contents of which are distilled by the press into a form that the public can more readily understand. Responding to the unified voices of the press, the public, and the experts, policy makers reform institutions in more effective directions.

In practice, policy makers control access to much important data and information. They must grant experts access for there to be an effective investigation. Yet many appear reluctant to share their inside information for fear of criticism and interruptions to the exercise of authority. In the case of the Challenger tragedy, the pressure from the press and the public was overwhelming. Not so for the “sub-prime” crisis.

One important difference is that ideology plays a far larger role in policy proposals in the housing finance arena than for the space shuttle. Judging from the editorials in the New York Times, those wily financiers at Goldman Sachs and elsewhere alone caused the housing finance crash by introducing exploding

mortgages. Judging from those in the Wall Street Journal, the political sector alone encouraged excessive risk taking both directly and through its proxies, Fannie Mae and Freddie Mac. In thus selling opinions to their ideologically committed readers, the press aligns neatly with the demand-side model of Mullainathan and Shleifer 2005.

While ideology sells papers, it also spells ignorance. By shouting loudly at one another and striking moral poses, the press encourages completely inexperienced ideologues in the public to tweet approval. This leaves the political class free to continue with business as usual. With the study of history thereby sidelined, we are more likely than not to repeat it.

I. PR or Reality?

Rejection of expert input is a general policy problem that arises even when ideological considerations are muted. Many in NASA's management team were justifiably uncomfortable having Richard Feynman looking over their shoulders. Their worst fears were nearly realized when Feynman started to reveal his true feelings on their behavior. So worried were they that Feynman's comments on NASA's safety culture were initially cut out of the report.

Chairman Rogers' effort to suppress Feynman's views ultimately proved

unsuccessful. Feynman refused to sign the report unless it included at least some of his criticisms. The result was Appendix F to the Commission Report, "Personal observations on the reliability of the Shuttle" (Feynman 1986, under "Introduction"). In this report, Feynman noted that working engineers assessed the risk of the shuttle crashing as 1 in 100. His own technical analysis arrived at the same number. He contrasted this with the 1 in 100,000 figure from management. Given that Challenger was mission 25, this gave rise to a simple question:

"What is the cause of management's fantastic faith in the machinery?"

Feynman's answer was that it served NASA's short run PR needs, which he found deeply offensive.

"NASA owes it to the citizens from whom it asks support to be frank, honest, and informative, so that these citizens can make the wisest decisions for the use of their limited resources. For a successful technology, reality must take precedence over public relations, for nature cannot be fooled." (Feynman 1986, under "Conclusions")

PR takes precedence over reality at least as much in the case of housing finance as for the shuttle program. For the last few years, the Federal Housing Administration (FHA) has been the primary tool of housing finance

policy. It offers low down payment mortgages and presents Annual Reports to Congress that assess the status of its primary fund, the Mutual Mortgage Insurance Fund (MMIF). It also issues one-year ahead projections of the future status of this fund. In 2005, actual performance fell short of the one-year ahead projections by \$681 million; in 2006 by \$1.85 billion; in 2007 by \$9.84 billion; in 2008 by \$12.2 billion; and in 2009 by \$5.1 billion. (IFE, various years)

In principle, two factors might account for these negative prediction errors. In 2006, 2007, and even to some extent 2008, the fall in house prices was larger than one might have predicted a year ahead. Moreover losses were particularly heavy in FHA's reverse mortgage program (the "HECM" program), which has entirely different dynamics than do standard mortgage programs. Hence from 2009 on, projections for the following year were provided for the standard FHA programs with the HECM program treated separately. By this time also the surprise aspect of house price declines was largely over. Finally, a real recovery started in 2012, with house prices staging a surprising turnaround and the start of a massive increase in builders' share values that has continued to this day. Hence one might have expected to see years in which

FHA's MMIF exceeded projections. The actual data show no such pattern.

In 2010, actual performance fell short of projections by \$2.7 billion. In 2011 it fell short by \$9.8 billion. In the year of recovery, 2012, it fell short by fully \$22.8 billion. In 2013 it fell short by \$5.3 billion even as the recovery spread.

If you notice a pattern, you are ahead of the press and the political class. Echoing Feynman, one might ask: what explains FHA's fantastic faith in its mortgages?

Is it possible that PR needs play a role, direct or indirect, in FHA's risk assessment? Certainly, the optimistic early assessments enabled then Commissioner David Stevens to accurately assert in his Congressional testimony of October 8, 2009 (Stevens 2009, 1):

"based on current projections [emphasis added], absent any catastrophic home price decline, FHA ... will not need a bailout."

Shortly thereafter, Joe Gyourko applied apparently less-biased methods of economic forecasting to predict that FHA would be the next housing bailout (Gyourko 2011). For this he was rudely dismissed on the FHA Website (this commentary is no longer available). On September 30, 2013, FHA indeed requested its first \$1.7 billion bailout from Treasury.

The FHA's prediction problems were not surprising to concerned experts. Many sources of bias were noted in the paper "Reassessing FHA Risk" (Aragon et al. 2010). Four key such sources were: underestimation of how many FHA borrowers were underwater and in economic distress; use of inflated measures of house values that lowered loss estimates; failure to incorporate signals of future losses available from mortgage delinquency; and ignoring risks associated with down-payment assistance programs despite high losses on past such programs.

But the main bias identified was more egregious. It concerns inappropriate treatment of mortgage refinancing. In the early 2000's, FHA loans typically terminated when the borrower sold the house, moved, or took out a new loan, thereby removing the risk from the FHA books. Yet in 2009, terminations were dominated by "streamline refinances," in which an existing FHA mortgage is refinanced into another FHA mortgage. No new underwriting is undertaken for these refinances.

The loss model used in the audit makes no distinction between these two very different types of prepayments, treating what are effectively loan modifications as if they removed risk of future loss from the FHA's books. The problem was noted explicitly in

Andrew Caplin's Testimony to Congress on March 11, 2010 (Caplin 2010, 1)

"The problems in the actuarial review first came to our attention when Joseph Tracy, Executive Vice President and Senior Advisor to the President of the Federal Reserve Bank of New York, noticed that FHA prepayment behavior changed radically in 2009. Many mortgages that were significantly under water, which traditionally do not prepay, suddenly started to prepay. It is as if a group of particularly sick patients at a hospital suddenly appeared cured. As is so often the case, if it seems too good to be true, it is.

Joe and I were able to discover the cause of this apparent miracle cure, which turns out to be poor record keeping when one FHA mortgage is 'streamline-refinanced' into another. To use the hospital analogy, it is as if very sick patients had been moved to a new room for treatment, yet were recorded as having been cured and discharged from the hospital. The room down the hall then took no new measurements, disregarded information from the prior treatment, and treated the patient arriving from the neighboring ward as relatively healthy. With this form of record-keeping, a hospital could boost its apparent success rate by moving patients frequently between rooms."

FHA was aware of the issue. Joe Tracy met with FHA's Chief Risk Officer in 2009. In case limited analytic resources prevented it from conducting an appropriate risk analysis, he offered to appropriately model FHA risk if granted access to the data necessary to re-link mortgages. His request was met with silence. It later became apparent that FHA was perfectly capable of conducting more appropriate analyses. Indeed it did just this when praising the quality of its 2009 and 2010 books of business.

“Even in the Moody’s Depression scenario, where the FY 2010 book would itself sustain immediate house price declines of 24 percent, the value of the book remains positive, though by a small margin.The FY 2009 book is not as strong, and has a base-case value that is close to zero. That book would have negative expected NPV with a (future) decline in home prices of just 4 percent. The lack of any margin of error for the FY 2009 book is principally because that book is shouldering a substantial amount of the original credit risk of the FY 2006 – 2008 books via streamline refinancing into that book. Streamline refinance loans are not newly underwritten and so represent a mixture of credit quality from previous books. The base-case NPV of

the FY 2009 book without streamline refinance loans is 0.61 percent of the value of loans insured. With the streamline refinance loans added, that falls to just 0.06 percent.” (U.S. Department of Housing and Urban Development 2010, p. 32)

For those without privileged access to FHA data, putting together alternative sources is extremely time-consuming and technically challenging. Following two years research with imperfect alternatives and after Caplin's second testimony to Congress on December 1, 2011, a paper using linked data was completed (Caplin, Cororaton, and Tracy 2012). It provides a negative answer to the question: “Is FHA Creating Sustainable Homeownership?”

The press is another institution whose role in the fiasco that is U.S. housing finance policy bears highlighting. A concerned press would have noted the disconnect between FHA's risk projections and real outcomes. An expert press would have noted the failure to link mortgages in loss projections. Unfortunately, the press has proven itself to be neither concerned nor expert.

II. Neglect is not Benign

Policy makers control not only the data with which their policies are evaluated, but also the implementation of called for reforms. To

understand the implied risks, consider once again the Challenger crash. Following release of the report and Feynman's appendix, NASA announced a raft of new safety measures in June 1987 (NASA 1987, under "Overview")

"Sweeping personnel and organizational changes begun immediately after the accident are now complete.... Special attention is being given to the critical issues of management isolation and the tendency toward technical complacency, which, combined with schedule pressure, led to an erosion in flight safety."

Fast forward less than 16 years to January 16, 2003 and to flight 113. On re-entry into earth's atmosphere over Texas, space shuttle Columbia broke apart. A full section in the ensuing report was headed: "Organizational Causes: A Broken Safety Culture". The report (NASA 2003, Volume 2, page 101) notes:

"This culture ... acted over time to resist externally imposed change. By the eve of the *Columbia* accident, institutional practices that were in effect at the time of the *Challenger* accident -- such as inadequate concern over deviations from expected performance, a silent safety program, and schedule pressure -- had returned to NASA."

Anyone looking for triumphs of form over substance in the wake of the housing finance crash will find an embarrassment of riches. A particularly rich vein is afforded by the

process of house valuation. Failures in this process were already old news in 1997 (see e.g. Caplin et al. 1997, chapter 14, pp 192-195). One might hope therefore that new 2010 OCC rules on house valuation would improve matters since they refer repeatedly to alignment of incentives (U.S. Department of Treasury, 2010).

There are at least two reasons to believe otherwise. First, while increased costs are imposed at all stages of the process, there is no requirement to confirm improved accuracy. Second, the rules do not apply to Fannie Mae or Freddie Mac. Might political considerations not inform the valuation process? Future mortgage messes and bail-outs are a racing certainty.

The deepest problem is that policy makers in many areas see themselves as both invisible and invincible. Without expert analysis, policies can easily be made to sound good. The press treats the exclusion of experts as a positive, since it clears the decks for spinners. Literally no one knows how many other crises are currently growing unseen in this fertile soil.

III. The Experts Strike Back

We close by highlighting what we see as the best possible way forward. At present, experts play a largely passive role in areas in which

policy makers withhold key information. They simply move on to greener research pastures. In this respect, they are enablers of policy dysfunction and press superficiality.

Hope for policy improvement would be far greater if more experts were to force their way into the policy process. While hard, it is not impossible to get around blocks to the assessment of policy makers' performance. Expert analyses will identify policy dysfunction and press superficiality at almost every turn. Ideally, the resulting analyses will increase public engagement in vital matters of policy, expand the mandate of those in the press who are either concerned or expert, and aid any politicians who put reality above PR. Even if these efforts by experts fall short, they represent our last best hope.

By way of conclusion, we channel the Lorax in addressing our current and future colleagues:

“Unless someone like you cares a whole awful lot, nothing's going to get better. It's not.” (Dr. Seuss 1971, second to last page)

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