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Associate Professor of Economics and Law, William Black Written Testimony Before the FCIC

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Testimony before the Financial Crisis Inquiry Commission
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Honorable Commissioners:

You have asked that I testify about the role of fraud in the financial crisis. Thank you for the opportunity.

Background:

Primary appointment: economics, joint appointment: law. I am a white-collar criminologist and a former financial regulator. I was the executive director of the Institute for Fraud Prevention. I have developed anti-fraud systems for the World Bank and field tested them in India. I was an expert witness for the federal regulatory agency bringing an administrative action against the former CEO of Fannie Mae.

My duties as a regulator included:

- Served as what we informally referred to as the "chief coroner" – my staff reviewed every failure to determine its causes
- Led the re-regulation of the S&L industry at the staff level
- The primary agency spokesperson on the role of fraud in the debacle
- Trained our staff, FBI, Secret Service and IRS agents, AUSAs, and state prosecutors to identify, investigate, and prosecute frauds
- Served as an expert witness for several high priority prosecutions
- Investigated and brought civil and administrative actions
- Filed criminal referrals – Suspicious Activity Reports (SARs)
- Met with AUSAs and FBI agents in task forces

I also served as the executive staff director of the National Commission on Financial Institution Reform, Recovery and Enforcement (NCFIRRE) and authored over ten staff reports.

I have testified before Senate twice with regard to the ongoing financial crisis (on financial derivatives and the role of fraud in the crisis) and the House twice (on Lehman's failure and the related regulatory actions of the SEC and Federal Reserve and on executive and professional compensation).

My primary research foci are "control fraud," financial regulation, and financial crises.

Overview of Key Findings:

The conventional wisdom about mortgage fraud is logically incoherent, contrary to the established facts, and created as a smokescreen by the leading frauds – the nonprime specialty lenders.

1. "Adverse selection" is suicidal for an honest mortgage lender – it produces a "negative expected value" (i.e., it is certain to produce net losses). Millions of nonprime loans were made under conditions known to create intense adverse selection. There were millions of liar's loans. The mortgage industry's own fraud specialists wrote that stated income loans were an open "invitation to fraud" and justified the industry term ("liar's loans").
2. The data demonstrate conclusively that most liar's loans were fraudulent, which means that there were millions of fraudulent mortgage loans because liar's loans became common (Credit Suisse estimates that they represented 49% of new originations by 2006). The data also demonstrate that even minimal underwriting of the loan files was sufficient to detect the overwhelming majority of such fraudulent liar's loans. No honest, rational lender would make large numbers of liar's loans. The epidemic of mortgage fraud was so large that it hyper-inflated the housing bubble, which allowed refinancing to further extend the life of the bubble (and the depth of the ultimate Great Recession.
3. The claim that lenders made *honest* liar's loans because they did not want to lose market share to competitors is nonsensical (and oxymoronic). When a competitor makes a liar's loan the competitor loses money (that's what "adverse selection" and "negative expected value" mean).
4. The claim that lenders made *honest* liar's loans because they intended to *honestly* sell the loan to a third party is oxymoronic and false. Liar's loans were overwhelmingly sold under representations and warranties that they were not fraudulent and typically had "put" provisions under which the buyer could require the seller of the fraudulent loans to make good any losses due to fraud. In the cases where there have been even minimal investigations (New Century, Aurora/Lehman, Citi, WaMu, Countrywide, and IndyMac) senior lender officials were aware that liar's loans were typically fraudulent. The lenders could not make an honest business out of selling overwhelmingly fraudulent mortgages.
5. Liar's loans were done for the usual reason – they optimized (fictional) short-term accounting income by creating a "sure thing" (Akerlof & Romer 1993). A fraudulent lender optimizes short-term fictional accounting income and longer term (real) losses by following a four-part recipe:
    A. Extreme Growth
    B. Making bad loans at a premium yield
    C. Extreme leverage
    D. Grossly inadequate loss reserves
6. Note that this same recipe maximizes fictional profits and real losses. This destroys the lender, but it makes senior officers that control the lender wealthy. This explains Akerlof & Romer's title – *Looting: The Economic Underworld of Bankruptcy for Profit*. The failure of the firm is not a failure of the fraud scheme. (Modern bailouts may even recapitalize the looted bank and leave the looters in charge of it.)
7. The first two "ingredients" are related. Home lending is a mature, reasonably competitive industry. A lender cannot grow extremely rapidly by making good loans. If he tried, he'd

have to cut his yield and his competitors would respond. His income would decline. But he can guarantee the ability to grow extremely rapidly by being indifferent to loan quality and charging weaker credit risks, or more naïve borrowers, a premium yield.

8. In order to become indifferent to loan quality the officers controlling the lender must eviscerate its underwriting.
9. A control fraud can ensure this result. The senior officers can hire, fire, and transfer employees. More importantly, they can devise and implement the compensation system to suborn internal and external "controls."
10. When the frauds that control the lender eviscerate the underwriting and controls they also create a criminogenic environment that attracts opportunistic frauds – these are the rings that the Justice Department targets instead of the control frauds.
11. Deliberately create a "Gresham's dynamic" (Akerlof 1970) in which bad ethics drives good ethics out of the workplace. Classic example is coercing appraisers to inflate appraisals. *There is no honest reason for a secured lender to seek or permit inflated appraisal values.* This is a sure marker of accounting control fraud – a marker that juries easily understand.
12. These Gresham's dynamics are precisely what we observe at each nonprime specialty lender that has been subjected to even a material investigation. (If you don't investigate, you don't find.) Coercion of appraisers and the use of volume/yield "performance" compensation systems for loan officers and brokers is the norm where nonprime specialty lenders have been investigated.
13. The "primary" control fraud epidemic by the nonprime lenders was criminogenic – it was sufficient to create an "upstream" "echo epidemic" among loan brokers, mortgage bankers, appraisers, and allied mortgage personnel. This upstream epidemic fed the primary epidemic, allowing them to optimize their fictional accounting income through extraordinary growth of high yield product.
14. The banking regulators have to serve as the "Sherpas" for the FBI. We have the expertise (and, once, we had the numbers). We have to do the heavy lifting and act as the expert guide. Our criminal referrals have to provide the detailed trail map. None of that is happening according to reports from the OCC and OTS – no criminal referrals.
15. In the absence of the regulators serving as the vital Sherpas, but FBI turned to its "partner" – the Mortgage Bankers Association (MBA) – the trade association of the "perps."
16. Naturally, the MBA wanted to picture its members as the "victims" and to ignore the existence of control fraud.
17. **The MBA created the purported division of mortgage fraud into two exclusive categories ("for housing" v. "for profit") – and neither category permits control fraud. The MBA admits that junior officers engage in mortgage fraud. The MBA, implicitly, defines the senior officers that control the lender as inherently honest. There is no basis for that implicit assumption. It has never proven true in any prior crisis.**
18. The primary mortgage control fraud inherently leads to downstream accounting control fraud by those that hold or securitize fraudulent nonprime mortgage instruments. Adverse selection inherently produces severe losses. If the primary epidemic of mortgage fraud is large enough to hyper-inflate the bubble the resultant losses will be catastrophic. The holders of liar's loans will have strong incentives to engage in accounting control fraud to avoid recognizing these losses.
19. Conversely, to the extent upstream purchasers of fraudulent loans (e.g., Merrill Lynch) engage in the financial equivalent of "don't ask; don't tell" they will eviscerate their

underwriting and purchase fraudulent nonprime paper because it will pay a higher yield and maximize their bonuses. The environment can be criminogenic in both directions.

20. Control fraud epidemics of mortgage fraud also explain other characteristics of the crisis that are otherwise nonsensical. The spread and allowance for loan and lease losses (ALLL) on nonprime loans fell even as (A) the FBI warned of an epidemic of mortgage fraud, (B) there was ever greater concern that housing values were being inflated by an enormous bubble, and (C) there was universal agreement that loan quality was falling precipitously. Logically, the spread should widen and the ALLL should be increased dramatically in these circumstances. The spread narrows because the fraudulent lenders have to compete increasingly for a diminishing supply of borrowers. They compete by reducing yield, which reduces the spread. General loss provisions fall as the collapse nears because delinquencies increase as soon as bubble's expansion slows. As delinquencies on bad loans increase reported income falls and the officers fear that they will not maximize their bonuses. By reducing the provisions for losses the controlling officers can increase reported income.
21. A criminal justice response that focuses on the opportunistic junior insiders that take advantage of the senior officers' evisceration of underwriting and suborning of controls cannot succeed. It can produce hundreds of convictions, but it will fail to sanction and deter the control frauds. History demonstrates that if the control frauds get away with their frauds they will strike again.
22. By allowing the banks to use their political power to gimmick the accounting rules to permit them to hide their massive losses on liar's loans we have made it far harder to take effective administrative, civil, and criminal sanctions against the elite frauds that caused the Great Recession. Hiding the losses also adopts the dishonest Japanese approach that cripples economic recovery and public integrity.
23. Prosecuting the elites control frauds can be done successfully. Create a new "Top 100" priority list and appoint regulators that will make supporting the Justice Department a top agency priority. That's how we obtained over 1000 priority felony convictions of elite S&L criminals. No controlling officer of a large, non-prime specialty lender has been convicted of running a control fraud. Only one has even been indicted.
24. The FBI has written that any discussion of the crisis that ignores the role of mortgage fraud is "irresponsible." The current FCIC staff draft memoranda on the crisis, mortgage instruments, and securitization all fail to even discuss fraud – a principal cause of the problems discussed in those memoranda. The existing memoranda on these three subjects cite none of the criminology literature and ignore the work of George Akerlof on control fraud – a Nobel Prize winner in economics and *the* expert on this subject in his field. (Curiously, one of the memos cites "lemons" problems without citing his article.) The entire discussion of the crisis before FCIC has been framed in a manner that almost entirely excludes control fraud.

Extended Testimony

Rather than reinvent the wheel, I have (barely) modified my Senate Judiciary testimony on the same subject. I will also provide the Commission with a shorter memorandum on some of the specific mortgage fraud mechanisms and players in Florida.

Dear Honorable Commissioners:

The criminal justice system needs to work with regulation not only to make regulation more effective, but also to prevent "private market discipline" from becoming a "criminogenic" oxymoron. To understand the vital role that the criminal justice system must play if we are to avoid the recurrent, intensifying financial crises that have beset this and many other nations for nearly three decades we must begin by understanding the epidemics of "control fraud" that are driving these crises.

An Introduction to "Control Fraud"

"Control frauds" are seemingly legitimate entities controlled by persons that use them as a fraud "weapon." (The person that controls the firm is typically the CEO, so that term is used in this testimony.) A single control fraud can cause greater losses than all other forms of property crime combined. Neo-classical economic theory, methodology, and praxis combine to optimize criminogenic environments that hyper-inflate financial bubbles and produce recurrent, intensifying financial crises. A criminogenic environment is one that creates such perverse incentives that it leads to widespread crime. Financial control frauds' "weapon of choice" is accounting. Neoclassical theory, which dominates law & economics, is criminogenic because it assumes that control fraud cannot exist while recommending legal policies that optimize an industry for control fraud. Its hostility to regulation, endorsement of opaque assets that lack readily verifiable market values, and support for executive compensation that creates perverse incentives to engage in accounting control fraud and optimizes fraudulent CEOs' ability to convert firm assets to the CEO's personal benefit have created a nearly perfect crime. Studies have shown that control fraud was invariably present at the typical large S&L failure. There is a consensus about the decisive role of control fraud in the Enron era frauds. The FBI began testifying publicly in September 2004 that there was an epidemic of mortgage fraud and predicting that it would cause an economic crisis if it were not contained. Similar widescale control frauds have driven financial crises in other nations. It is astounding, therefore, that neo-classical economists overwhelmingly ignore even the possibility of control fraud in the current crisis.

Judge Easterbrook and Professor Fischel are the leading proponent of the naive neoclassical theory that markets automatically and promptly exclude frauds. They view managers as so pure that "a rule against fraud is not an essential or even necessarily an important ingredient of securities markets" (1991: 283). Their book was written after Professor Fischel, as a consultant to three of the most notorious control frauds of the 1980s, tried out their theories in the real world – and found that they failed catastrophically. Fischel praised the worst frauds. Fischel & Easterbrook did not disclose to their readers that their theories were falsified in the real world.

George Akerlof's famous article about lemons markets (1970) illustrated one of the worst problems that asymmetical information could cause and began the research that led to the award of the Nobel Prize in Economics to him and two other scholars of asymmetrical information in 2001. The examples of lemons markets that Akerlof explored in that article were all anti-consumer control frauds in which the deceit hides quality defects in the goods.

Akerlof explained that this could cause a Gresham's dynamic in which cheaters prospered and market forces drove honest competitors out of the industry. A Gresham's dynamic is intensely criminogenic. Akerlof was one of the first to realize that white-collar criminals didn't simply commit crimes – they created the perverse incentives that twisted private market discipline into a immoral force that harmed markets. Indeed, Akerlof demonstrated that if fraud becomes serious it can cause markets to fail rather than to clear (a point I will return to shortly).

Epidemics of control fraud are superb devices for hyper-inflating financial bubbles. Akerlof & Romer and I both warned in 1993 that the S&L control frauds had caused the Southwest commercial real estate bubble to hyper-inflate (Akerlof & Romer 1993; Black 1993). The epidemic of mortgage fraud was essential to the creation of the largest bubble in history, the U.S. housing bubble (Black 2010).

Fraud is instrinsically dangerous to markets in another fashion that can cause crises. At law, the defining element of fraud that distinguishes it from other forms of larceny is deceit. A fraudster gets the victim to trust him – and then betrays that trust. Fraud, therefore, is the most effective acid for destroying trust. Epidemics of accounting control fraud lead to massively overstated asset values. This can cause bankers to distrust other bankers – which can cause markets to collapse instead of clear.

Neo-Classical Economic Policies are Criminogenic: They Cause Control Fraud Epidemics

Neo-classical economics failed to build on Akerlof's work to develop a coherent theory of fraud, bubbles, or financial crises (Black 2005). It continued to rely on a single methodological approach (econometrics) that inherently produces the worst possible policy advice during the expansion phase of a bubble.

Control frauds can cause enormous losses, while minimizing the risk that controlling officers will be sanctioned because only the CEO can (Black 2005):

- Optimize the firm's operations and structures for fraud
- Set a corrupt tone at the top, and suborn controls, employees and officers into becoming allies
- Convert firm assets to the CEO's personal benefit throught seemingly normal corporate compensation mechanisms
- Optimize the external environment for control fraud, e.g., by creating regulatory black holes.

These perverse factors were first identified in connection with the S&L debacle of the 1980s. The National Commission on Financial Institution Reform Recovery and Enforcement (NCFIRRE) (1993), report on the causes of the S&L debacle documented the patterns.

> The typical large failure was a stockholder-owned, state-chartered institution in Texas or California where regulation and supervision were most lax…. [It] had grown at an extremely rapid rate, achieving high concentrations of assets in risky ventures…. [E]very accounting trick available was used to make the institution look profitable, safe, and solvent. Evidence of fraud was invariably present as was the ability of the

> operators to "milk" the organization through high dividends and salaries, bonuses, perks and other means (NCFIRRE 1993: 3-4).
>
> [A]busive operators of S&L[s] sought out compliant and cooperative accountants. The result was a sort of "Gresham's Law" in which the bad professionals forced out the good (NCFIRRE 1993: 76).

James Pierce, NCFIRRE's Executive Director, explained:

> Accounting abuses also provided the ultimate perverse incentive: it paid to seek out bad loans because only those who had no intention of repaying would be willing to offer the high loan fees and interest required for the best looting. It was rational for operators to drive their institutions ever deeper into insolvency as they looted them (1994: 10-11).

A lender optimizes accounting control fraud through a four-part recipe. Top economists, criminologists, and the savings and loan (S&L) regulators agreed that this recipe is a "sure thing" – producing guaranteed, record (fictional) near-term profits and catastrophic losses in the longer-term. Akerlof & Romer (1993) termed the strategy: *Looting: Bankruptcy for Profit*. The firm fails, but the officers become wealthy (Bebchuk, Cohen& Spamann 2010).

- Extremely rapid growth
- Lending at high (nominal) yield to borrowers that will frequently be unable to repay
- Extreme leverage
- Providing grossly inadequate reserves against the losses inherent in making bad loans

Nonprime mortgage lenders followed the same recipe. Growth was extreme.

> In summary, the bank in our analysis pursued an aggressive expansion strategy relying heavily on broker originations and low-documentation loans in particular. The strategy allowed the bank to grow at an annualized rate of over 50% from 2004 to 2006. Such a business model is typical among the major players that enjoyed the fastest growth during the housing market boom and incurred the heaviest losses during the downturn (Jiang, Aiko & Vylacil 2009: 9).

Loan standards collapsed. Cutter (2009), a managing partner of Warburg Pincus, explains:

> In fact, by 2006 and early 2007 everyone thought we were headed to a cliff, but no one knew when or what the triggering mechanism would be. The capital market experts I was listening to all thought the banks were going crazy, and that the terms of major loans being offered by the banks were nuttiness of epic proportions.

Leverage was exceptional. Unregulated nonprime lenders had no meaningful capital rules.

Honest lenders would establish record high loss reserves pursuant to generally accepted accounting principles (GAAP). "The industry's reserves-to-loan ratio has been setting new record lows for the past four years" (A.M. Best 2006: 3). The ratio fell to 1.21 percent as of September 30, 2005 (*Id.*: 4-5). Later, "loan loss reserves are down to levels not seen since 1985" (roughly one percent) (A.M. Best 2007: 1). It noted that these inadequate loss reserves in 1985 led to banking and S&L crises. In 2009, IMF estimated losses on U.S. originated assets of $2.7 trillion (IMF 2009: 35 Table 1.3) (roughly 30 times larger than bank loss reserves).

Fraud Warnings

The claim that no one could have foreseen the crisis is false. Unlike the S&L debacle, the FBI was far ahead of the regulators in recognizing that there was an "epidemic" of mortgage fraud and that it could cause a financial crisis. The FBI warned in September 2004 (CNN) that the "epidemic" of mortgage fraud would cause a "crisis" if it were not contained. The FBI has emphasized that 80 percent of mortgage fraud losses occur when lending industry insiders are part of the fraud scheme. The FBI deserves enormous credit for sounding such a strong, accurate, and public warning. Special praise should also go to Inman News, which put out a series of reports about mortgage fraud that culminated in a compendium in 2003 entitled: "Real Estate Fraud: The Housing Industry's White-Collar Epidemic." The warnings about appraisal fraud were equally stark – "Home Insecurity: How Widespread Appraisal Fraud Puts Homeowners at Risk" (Demos 2005). The remarkable fact is that the private sector, the regulators, and the prosecutors failed to take effective action despite these warnings. The failure to act is all the more troubling because the nonprime lenders followed the distinctive four-part recipe for lenders optimizing accounting control fraud that regulators, economists, and criminologists had documented and explained in the S&L debacle, during financial privatization (e.g., tunneling), and in the Enron-era control frauds.

Fraud Markers

S&L regulators (in the 1980s) and criminologists and economists (in the 1990s) had identified fraud "markers" (a term borrowed from pathology) that only fraudulent lenders would employ. Gutting underwriting is essential for lenders engaged in accounting control fraud because they have to make massive amounts of bad loans in order to grow extremely rapidly and charge premium interest rates in order to optimize near-term accounting "profits." Banks (and economists) have known for centuries that gutting mortgage underwriting leads to "adverse selection" (lending to borrowers that will often not be able or willing repay their loans). The "expected value" of adverse selection is sharply negative, i.e., the lender will invariably lose money (once the losses become manifest).

S&L regulators looked for fraud "markers", such as deliberately lending to uncreditworthy borrowers by inflating appraisals or by ignoring a track record of defaults that no honest lender would commit (Black, Calavita & Pontell 1985; Black 2005).

S&L regulators used these markers to identify and close the accounting control frauds while they were reporting record profits and minimal losses in the 1980s before they could cause a nationwide financial bubble, a general economic crisis, or recession. The most obvious marker is when lenders do not even take prudent steps to prevent fraud, but rather cover it up.

There is no honest reason for deliberately failing to establish adequate loss reserves, yet the typical nonprime lender slashed general loss reserves while risk was surging and GAAP required reserves to increase. That constitutes accounting and securities fraud, but it is also a marker of accounting control fraud. The officers controlling nonprime lenders, by keeping loan loss reserves at trivial levels, maxmized the lenders' fictional income – and their compensation.

Similarly, appraisal fraud is not only a fraud but a "marker" of a broader fraud scheme. An honest secured lender would never inflate, or permit others to inflate, appraisal values. The 2009 FINCEN report explains why appraisal fraud adds enormously to losses from mortgage fraud.

> Lenders rely on accurate appraisals to ensure that loans are fully secured. The Appraisal Institute and the American Society of Appraisers testified that "…it is common for mortgage brokers, lenders, realty agents and others with a vested interest to seek out inflated appraisals to facilitate transactions because it pays them to do so. Higher sales prices typically generate higher fees for brokers, lenders, real estate agents, and loan settlement offices, and higher earnings for real estate investors. Appraisal fraud has a snowball effect on inflating real estate values, with fraudulent values being … used by legitimate appraisers….

The Gresham's dynamic that the accounting control frauds deliberately induced in appraisals has been established repeatedly in surveys of appraisers.

> A new survey of the national appraisal industry found that 90 percent of appraisers reported that mortgage brokers, real estate agents, lenders and even consumers have put pressure on them to raise property valuations to enable deals to go through. That percentage is up sharply from a parallel survey conducted in 2003, when 55 percent of appraisers reported attempts to influence their findings and 45 percent reported "never." Now the latter category is down to just 10 percent.
>
> The survey found that 75 percent of appraisers reported "negative ramifications" if they refused to cooperate and come in with a higher valuation. Sixty-eight percent said they lost the client -- typically a mortgage broker or lender -- following their refusal to fudge the numbers, and 45 percent reported not receiving payment for their appraisal.

Control frauds, either directly or indirectly through the perverse incentives their compensations systems create for loan officers, loan brokers, and mortgage brokers, cause, encourage, and accede to endemic appraisal fraud.

The New York Attorney General's investigation of Washington Mutual (WaMu) (one of the largest nonprime mortgage lenders) and its appraisal practices supports this dynamic.

> New York Attorney General Andrew Cuomo said [that] a major real estate appraisal company colluded with the nation's largest savings and loan companies to inflate the values of homes nationwide, contributing to the subprime mortgage crisis.

> "This is a case we believe is indicative of an industrywide problem," Cuomo said in a news conference.
>
> Cuomo announced the civil lawsuit against eAppraiseIT that accuses the First American Corp. subsidiary of caving in to pressure from Washington Mutual Inc. to use a list of "proven appraisers" who he claims inflated home appraisals.
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> He also released e-mails that he said show executives were aware they were violating federal regulations. The lawsuit filed in state Supreme Court in Manhattan seeks to stop the practice, recover profits and assess penalties.
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> "These blatant actions of First American and eAppraiseIT have contributed to the growing foreclosure crisis and turmoil in the housing market," Cuomo said in a statement. "By allowing Washington Mutual to hand-pick appraisers who inflated values, First American helped set the current mortgage crisis in motion."
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> "First American and eAppraiseIT violated that independence when Washington Mutual strong-armed them into a system designed to rip off homeowners and investors alike," he said (*The Seattle Times*, November 1, 2007).

Note particularly Attorney General Cuomo's claim that WaMu "rip[ped] off … investors." That is an express claim that it operated as an accounting control fraud and inflated appraisals in order to maximize accounting "profits." A Senate investigation has found compelling evidence that WaMu acted in a manner that fits the accounting control fraud pattern. http://levin.senate.gov/newsroom/release.cfm?id=323765

Pressure to inflate appraisals was endemic among nonprime lending specialists.

> Appraisers complained on blogs and industry message boards of being pressured by mortgage brokers, lenders and even builders to "hit a number," in industry parlance, meaning the other party wanted them to appraise the home at a certain amount regardless of what it was actually worth. Appraisers risked being blacklisted if they stuck to their guns. "We know that it went on and we know just about everybody was involved to some extent," said Marc Savitt, the National Association of Mortgage Banker's immediate past president and chief point person during the first half of 2009 (*Washington Independent,* August 5, 2009).

These markers are pervasive in the current crisis and would have allowed effective regulatory intervention. They can be used to prosecute the senior officials that caused the current crisis and they can be used to limit future crises. Current regulators and prosecutors did not recognize the markers and act effectively on the FBI warning. Current regulators and prosecutors have been so blinded by anti-regulatory ideology that they joined the private sector in failing to act effectively even against lenders that specialized in what the trade openly called "liar's loans."

Echo Epidemics of Accounting Control Fraud

The primary epidemic of accounting control fraud by nonprime lenders produced "echo" epidemics of upstream and downstream control fraud. The primary mortgage fraud epidemic created a criminogenic environment that caused the upstream mortgage fraud epidemic. The downstream epidemic consists of those that purchased the nonprime product. The downstream epidemic could not have existed without the endemic mortgage fraud the other two fraud epidemics produced, but the downstream epidemic allowed both of the mortgage fraud epidemics to grow far larger.

In order to maximize their (fictional) accounting income, the nonprime lenders needed to induce others to send them massive quantities of relatively high yield mortgage loans with supporting appraisals, without regard to credit quality. The nonprime lenders created perverse incentives that produced a series of "Gresham's" dynamics. This did not require any formal agreement (conspiracy), which made it far easier to create an upstream echo epidemic and far harder to prosecute. Traditional mortgage underwriting has shown the ability to detect fraud prior to lending. The senior managers that controlled nonprime mortgage lenders that were control frauds, therefore, had to eliminate competent underwriting and suborn "controls" to pervert them into fraud allies.

When the nonprime lenders gutted their underwriting standards and controls and paid brokers greater fees for referring nonprime loans they inherently created an intensely criminogenic environment for loan brokers and appraisers. The brokers' optimization strategy was simple – refer as many relatively high yield mortgage loans as possible, as quickly as possible, with applications and made the borrower appear to qualify for the loan. The nonprime lenders, in essence, signaled their intention not to kick the tires and weed out even fraudulent loan applications and appraisals. I call this the financial version of "don't ask; don't tell" (a justly maligned U.S. military policy about gays serving in our armed services).

The downstream epidemic of accounting control fraud could not be created by the nonprime lenders because they could not create a downstream Gresham's dynamic. Indeed, the argument runs the other direction. The nonprime loan purchasers, by adopting "don't ask; don't tell", produced a criminogenic environment that helped drive the primary mortgage fraud epidemic. While press accounts have asserted that nonprime lenders had no concern about mortgage quality because they intended to sell the nonprime loans, that claim assumes away the central problem that the lender has no power to force someone to purchase the loans. The nonprime lenders were selling mortgages that were frequently fraudulent and worth dramatically less than lender's book value. They were selling in circumstances that the economic theory of "lemon" markets predicts can only be sold at a significant discount from the original book value (Akerlof 1970). Neoclassical economic theory predicts that "private market discipline" will prevent any downstream fraud (Black 2003). Fraudulent downstream investors rationally overpay for assets in order to obtain greater short-term yield (increasing accounting income) and rationally adopt a financial "don't ask; don't tell" policy with regard to asset quality and losses. Investors overpaid massively for nonprime CDOs – by 65 to 85 cents on the dollar. This created an overwhelming incentive to avoid massive loss recognition through a downstream epidemic of accounting fraud. The bankruptcy examiner's recent report on Lehman reveals that Lehman employed two common forms of accounting fraud – it did not recognize huge losses on assets and it used REPO transactions for the purpose of hiding those losses from creditors, investors, and regulators. Note that the downstream purchasers – including Fannie and Freddie – were never required to purchase fraudulent loans. Large numbers of liar's loans, for example, would not have counted towards Fannie and Freddie's regulatory requirement to purchase set percentages of below median income mortgages precisely because income was commonly grossly inflated. The CEOs that controlled the large financial players purchased over a trillion dollars in liar's loans not because they were required to or because President Clinton and Bush gave speeches favoring broader home ownership but because purchasing such loans created increased accounting income (in the near term), which maximized their bonuses.

Mortgage Fraud became Endemic

It is commonly reported that roughly 40% of U.S. mortgage lending during 2006 were nonprime, evenly split between subprime (known credit defects) and "alt-a" (purportedly high credit quality, but lacking verification of key underwriting data). "Alt-a" loans, by definition, did not conduct traditional underwriting (Bloomberg 2007; Gimein 2008). Liar's loans were sold under the bright shining lie that the borrowers had excellent credit characteristics essentially equivalent to prime borrowers. Investment banks typically called their liar's loans "prime" loans on their financial statements.

When discussing a category known in the trade as "liar's loans", however, it is well to be keep in mind the likelihood of deliberate misreporting of data. Over time, "alt-a" and "subprime" loans came to increasingly common features. Lehman, for example, had a subsidiary that specialized in liar's loans (Aurora) and one (BNC) that specialized in subprime. Aurora increasingly made liar's loans to borrowers that reported substantial credit problems and BNC increasingly made liar's loans to its subprime customers. When Lehman finally shut down BNC, Aurora continued to make liar's loans to borrowers disclosing defective credit. That is an extraordinary fact, for these were the borrowers whose incomes were typically grossly inflated. If even after the loan broker falsified much of the information on the application (Aurora purchased 95% of its liar's loans) the application showed obvious credit defects and Aurora still purchased the loans, then these actions are only rational for an accounting control fraud.

The implications of this are critical. It became the norm for liar's loans to be made on the basis of loan applications that, while fraudulent, also showed serious credit defects.

The typical presentation states that almost half of subprime loans, by 2006, did not conduct traditional underwriting. That percentage may be seriously underestimated. Lenders appear to have lied increasingly by describing liar's loan as "prime" loans. Credit Suisse reported in March 2007 that "we believe the most pressing areas of concern should be stated income (49% of originations), high CLTV/piggyback (39%), and interest only/negative amortizing loans (23%)." This is a good example of "layered risk." The sum of the three percentages exceeds 100% because it was common to make loans that had at least two, sometimes each, of these characteristics.

A small sample review of nonprime loan files by Fitch (2007), found that underwriting had to be eviscerated to permit the endemic fraud that came to characterize nonprime mortgage lending.

> Fitch's analysts conducted an independent analysis of these files with the benefit of the full origination and servicing files. The result of the analysis was disconcerting at best, as there was the appearance of fraud or misrepresentation in almost every file.
>
> [F]raud was not only present, but, in most cases, could have been identified with adequate underwriting, quality control and fraud prevention tools prior to the loan funding. Fitch believes that this targeted sampling of files was sufficient to determine that inadequate underwriting controls and, therefore, fraud is a factor in the defaults and losses on recent vintage pools.

MARI, the Mortgage Bankers Association (MBA's) experts on fraud, warned that "low doc" lending caused endemic fraud.

> Stated income and reduced documentation loans … are open invitations to fraudsters. It appears that many members of the industry have little historical appreciation for the havoc created by low-doc/no-doc products that were the rage in the early 1990s. Those loans produced hundreds of millions of dollars in losses for their users.
>
> One of MARI's customers recently reviewed a sample of 100 stated income loans upon which they had IRS Forms 4506. When the stated incomes were compared to the IRS figures, the resulting differences were dramatic. Ninety percent of the stated incomes were exaggerated by 5% or more. More disturbingly, almost 60% of the stated amounts were exaggerated by more than 50%. These results suggest that the stated income loan deserves the nickname used by many in the industry, the "liar's loan."

The same obvious question (which neither Fitch nor MARI asked) arises: why did lenders fail to use well understood underwriting systems that are highly successful in preventing fraud – even when they knew that fraud was endemic and would cause massive losses? The same obvious answer exists – it was in the interests of the controlling officers to optimize short-term accounting income. Turning a blind eye to endemic fraud helped optimize reported income and their executive compensation.

MARI's reference to the "early 1990s" refers to a number of S&Ls that originated or purchased "low doc" loans in the early 1990s. These loans caused "hundreds of millions of dollars in losses." Those losses were contained because the regulators promptly used their supervisory powers to halt the practice when they realized that it was growing and becoming material. We acted because we recognized that not underwriting maximized adverse selection and guaranteed high real losses (after near-term, fictional, profits). We ordered a halt to the practice even while many of the lenders were reporting that the lending was profitable. "Hundreds of millions of dollars in losses" is serious, but if the losses are contained at that level the number of lender failures will be minimal and there will be no risk of a crisis. Unfortunately, our regulatory successors had no "historical appreciation" for successful supervisory policies or the identification of accounting control fraud. They issued ineffective "cautions" to the industry that "low doc" loans could be risky, but refused to order an end to the practice and never considered the possibility that the lenders were control frauds.

Thomas J. Miller, Attorney General of Iowa, testimony at a 2007 Federal Reserve Board hearing shows why fraud losses are enormous:

> Over the last several years, the subprime market has created a race to the bottom in which unethical actors have been handsomely rewarded for their misdeeds and ethical actors have lost market share…. The market incentives rewarded irresponsible lending and made it more difficult for responsible lenders to compete. Strong regulations will create an even playing field in which ethical actors are no longer punished.
>
> Despite the well documented performance struggles of 2006 vintage loans, originators continued to use products with the same characteristics in 2007.
>
> [M]any originators … invent … non-existent occupations or income sources, or simply inflat[e] income totals to support loan applications.
>
> Importantly, our investigations have found that most stated income fraud occurs at the suggestion and direction of the loan originator, not the consumer.

Because these risks were "layered" – interacting to produce far greater risk (IMF 2008: 4-5 & n.6) – honest nonprime lenders would have responded by establishing record high general loss reserves in accordance with generally accepted accounting principles (GAAP). Instead, A.M. Best reported in February 2006 that: "the industry's reserves-to-loan ratio has been setting new record lows for the past four years" (A.M. Best 2006: 3). The ratio fell to 1.21 percent as of September 30, 2005 (*Id.*: 4-5). One year later, A.M. Best reported: "loan loss reserves are down to levels not seen since 1985" (roughly one percent) (A.M. Best 2007: 1). A.M. Best went on to point out that these grossly inadequate loss reserves in 1985 led to a decade-long crisis in banking and S&Ls. In 2009, IMF estimated losses on U.S. originated assets of $2.7 trillion (IMF 2009: 35 Table 1.3). Total U.S. bank and S&L general loss reserves in 2006 were under $100 billion, so general loss reserves would have had to be roughly 30 times larger to be adequate. If the lenders had established adequate loss reserves they would have reported that they were deeply unprofitable, which was the economic reality. The banking regulatory agencies, the SEC, and "private market discipline" all failed to require even remotely adequate reserves and minimal honesty in financial reports. The current control frauds used the same optimization techniques as did the S&Ls – but they did it on steroids. The primary epidemic directly created the upstream epidemic and was a necessary, but not sufficient, cause of the upstream epidemic.

If You Don't Investigate, You Won't Find

Criminologists and financial regulators have long warned that the failure to regulate the financial sphere *de facto* decriminalizes control fraud in the industry. The FBI cannot investigate effectively more than a small number of the massive accounting control frauds. Only the regulators can have the expertise, staff, and knowledge to identify on a timely basis the markers of accounting control fraud, to prepare the detailed criminal referrals essential to serve as a roadmap for the FBI, and to "detail" (second) staff to work for the FBI and serve as their "Sherpas" during the investigation.

The agency regulating S&Ls made criminal prosecution a top priority. The result was over 1000 priority felony convictions of senior insiders and their co-conspirators. That is the most successful effort against elite white-collar criminals. The agency also brought over 1000 administrative enforcement actions and hundreds of civil lawsuits against the elite frauds. One result of this was an extensive, public record of fact that fraud was "invariably present" at the "typical large failure" (NCFIRRE 1993). The Enron-era frauds were accounting control frauds and while the effort against them was too late and weaker than the effort against the S&L frauds it involved scores of prosecutions and provided substantial public documentation.

The FBI, however, after a brilliant start in identifying the epidemic of mortgage fraud, went tragically astray and its efforts to contain the epidemic failed. The FBI suffered from a horrific systems capacity problem. It did not have the agents or expertise to deal with the concurrent control fraud epidemics it faced this decade. Its systems capacity problems became crippling when 500 white-collar specialists were transferred to national security investigations in response to the 9/11 attacks and the administration refused to allow the FBI to hire new agents to replace the lost white-collar specialists.

The most crippling limitation on the regulators', FBI's, and DOJ's efforts to contain the epidemic of mortgage fraud and the financial crisis was not understanding of the cause of the epidemic and why it would cause a catastrophic financial crisis. The mortgage banking industry controlled the framing of the issue of mortgage fraud. That industry represents the lenders that caused the epidemic of mortgage fraud. The industry's trade association is the Mortgage Bankers Association (MBA). The MBA followed the obvious strategy of portraying its members as the victims of mortgage fraud. What it never discussed was that the officers that controlled its members were the primary beneficiaries of mortgage fraud. It is the trade association of the "perps." The MBA claimed that all mortgage fraud was divided into two categories – neither of which included accounting control fraud. The FBI, driven by acute systems incapacity, formed a "partnership" with the MBA and adopted the MBA's (facially absurd) two-part classification of mortgage fraud (FBI 2007). The result is that there has not been a single arrest, indictment, or conviction of a senior official of a nonprime lender for accounting fraud.

One of the most dramatic, and unfortunate differences between the S&L debacle and the current crisis is that the financial regulatory agencies gave the FBI no help in this crisis – even after it warned of the epidemic of mortgage fraud. The FBI does not mention the agencies in its list of sources of criminal referrals for mortgage fraud. The data on criminal referrals for mortgage fraud show that regulated financial institutions, which are required to file criminal referrals when they find "suspicious activity" indicating mortgage fraud, typically fail to do so. There is no evidence that the agencies responsible for enforcing the requirement file criminal referrals have taken any action to crack down on the widespread violations.

The crippling mischaracterization of the nature of the mortgage fraud epidemic came from the top, as the *New York Times* reported in late 2008.

> But Attorney General Michael B. Mukasey has rejected calls for the Justice Department to create the type of national task force that it did in 2002 to respond to the collapse of Enron.
>
> Mr. Mukasey said in June that the mortgage crisis was a different "type of phenomena" that was a more localized problem akin to "white-collar street crime."

The nation's top law enforcement official swallowed the MBA's mischaracterization of the mortgage fraud epidemic and economic crisis hook, line, sinker, bobber, rod, reel, and boat they rowed out into the swamp. Because Mukasey refused to investigate the elite frauds he created a self-fulfilling prophecy in which the FBI and DOJ pursued only the "white-collar street crim[inals]" (the small fry) and therefore confirmed that the problem was the small fry. The pursuit of the small fry was certain to fail.

The MBA's success in causing the FBI to ignore the control frauds reminds me of this passage in the original *Star Wars* movie where Obi-Wan uses Jedi powers to pass through an Imperial check point with two wanted droids in plain sight:

Stormtrooper: Let me see your identification.
Obi-Wan: [*with a small wave of his hand*] You don't need to see his identification.
Stormtrooper: We don't need to see his identification.
Obi-Wan: These aren't the droids you're looking for.
Stormtrooper: These aren't the droids we're looking for.
Obi-Wan: He can go about his business.
Stormtrooper: You can go about your business.
Obi-Wan: Move along.
Stormtrooper: Move along... move along.

Luke: I don't understand how we got by those troops. I thought we were dead.
Obi-Wan: The Force can have a strong influence on the weak-minded.

The FBI isn't supposed to be "weak-minded" about elite white-collar criminals. It is not supposed to be misled by "Jedi mind tricks" by the lobbyists for the "perps." It is not supposed to fail to understand the importance of endemic markers of accounting control fraud at every nonprime specialty lender where even a preliminary investigation has been made public.

The FBI, DOJ, banking regulators, SEC, and all the purported sources of "private market discipline" failed to act against (and even praised) the *perverse incentive structures* that the accounting control frauds created to cause the small fry to act fraudulently. Those incentive structures ensured that there were always far more new small fry hatched to replace the relatively few small fry that the DOJ could imprison. Accounting control frauds deliberately produce intensely criminogenic environments to recruit (typically without any need for a formal conspiracy) the fraud allies that optimize accounting fraud. They create the perverse Gresham's dynamic that means that the cheats prosper at the expense of their honest competitors. The result can be that the unethical drive the ethical from the marketplace. Had Mukasey been aware of modern white-collar criminological research he would have been forced to ask why tens of thousands of small fry were able to cause an epidemic of mortgage fraud in an industry that had historically successfully held fraud losses to well under one percent of assets. Ignoring good theory produces bad criminal justice policies.

The Size of the Mortgage Fraud Epidemic Swamps the FBI

The size of the current financial crisis and the incidence of fraud in the current crisis vastly exceed the S&L debacle. The FBI testified that it "increased the number of agents around the country who investigate mortgage fraud cases from 120 Special Agents in FY 2007 to 180 Special Agents in FY 2008…." Its testimony noted that it employed "1000 FBI agents and forensic experts" against the S&L frauds (Pistole 2009). It received over 63,000 criminal referrals for mortgage fraud in the last year for which it has full data (a figure that has risen substantially every year). The FBI, therefore, can investigate only a tiny percentage of criminal referrals for mortgage fraud. The FBI reports that 80% of mortgage fraud losses occur when "industry insiders" are involved in the fraud (FBI 2007).

Only federally insured banks and S&Ls are required to file criminal referrals. Non-insured lenders made 80% of nonprime mortgage loans (subprime and "alt-a"), and the made the worst nonprime loans that most invited fraud. These lenders can make criminal referrals and it would be in the interests of honest lenders to do so, but they rarely do. That means that the first approximation of the true annual incidence of mortgage fraud would be to multiply 63,000 by five (315,000). That extrapolation, however, would only be sound if (A) insured lenders spotted all mortgage fraud and (B) filed criminal referrals when they spotted likely frauds. The FBI believes that insured entities identify mortgage frauds prior to lending in about 20% on "no doc" loans (known in the trade as "liar's loans") (*New York Times,* April 6, 2008). Multiplying 315,000 by five produces a product of over 1.5 million.

The data on referrals show that the typical insured lender rarely files when it finds mortgage fraud. The October 2009 FinCEN report on criminal referrals for mortgage fraud (in jargon, Suspicious Activity Reports (SARs) found:

> In the first half of 2009, approximately 735 financial institutions submitted SARs, or about 50 more filers compared to the same period in 2008. The top 50 filers submitted 93 percent of all [mortgage fraud] SARs, consistent with the same 2008 filing period. However, SARs submitted by the top 10 filers increased from 64 percent to 72 percent.

Only a small percentage of mortgage lenders, 75 in total (roughly 10% of federally-insured mortgage lenders), filed even a single criminal referral for mortgage fraud during a mortgage fraud epidemic. Of the 735 that make at least one filing, fewer than 200 file more than four referrals. A mere ten filers provide the FBI with almost three-quarters of all SARs mortgage fraud filings. We cannot form an appropriate estimate of the degree of under-filing of criminal referrals when insured banks find fraud, but we can infer that the failure to file is pervasive. The logical explanation for the widespread failure of lenders to file criminal referrals when they discover mortgage frauds is that they fear that if they file FBI would come to the lender and discover its complicity in the fraud.

To sum it up, in FY 2007 the FBI has had less than one-eighth of the resources it had to investigate the S&L frauds despite the fact that the current crisis is perhaps 30 times worse than the S&L debacle. It was facing well over a million mortgage frauds annually. It could investigate under 1000 cases per year. If every investigation was successful the FBI would be completely ineffective in preventing or even slowing materially the epidemic of mortgage fraud. Mukasey's strategy of going after the small fry gave the control frauds a free pass and had to fail to deter the small fry.

Could this crisis have been prevented?

Yes. Indeed, in many ways this was an easier crisis to contain successfully than many prior financial crises. The United States had extensive experience with nonprime mortgage lending – and it always ended badly. This is the third nonprime failure in twenty years. Nonprime lending, on its face, is inherently imprudent. I quoted MARI about the nonprime losses of the early 1990s and explained how we used supervisory powers to end those losses. No expensive failures resulted and there was, of course, no crisis. Those were primarily "low doc" and (marginally) subprime loans.

Nonprime lenders suffered considerably worse losses (and many failures) in the late 1990s. These nonprime lenders were also known for their predatory lending practices, which led to serious (but not criminal) sanctions by the Federal Trade Commission. The most disturbing aspect of this series of nonprime failures was that elite commercial banks rushed to acquire the predatory lenders even as they were failing and sued by the FTC. President Bush even appointed the most infamous predatory subprime lender (and his largest political contributor), as our ambassador to the Netherlands.

The nonprime loans of the current crisis were an order of magnitude worse than in the early 1990s. They were subprime loans with severe credit defects and "no doc" ("liar's loans"). I've explained why that produces severe adverse selection. Adverse selection is criminogenic. It can produce fraud epidemics.

I noted the how the "layered" nature of the risk of nonprime loans surged during the crisis. These risks interact, the whole is far riskier than the sum of the parts – and the sum of the parts would have been terrifying to any honest lender. By 2006 and 2007, it was common for nonprime loans to include each of these characteristics:

- A trivial, or even no, downpayment
- The minimal downpayment was funded by another loan
- The purported loan-to-value (LTV) ratio was substantial

- The actual LTV was far higher, often >100%, because the appraisal was inflated
- The loan was occurring during the worst financial bubble in history, so the LTV once the bubble burst would greatly exceed 100%
- The loans were increasingly secured by junior liens
- The loan was "no doc" and the representations were not verified
- The information on the loan application was false
- The lender "qualified" the borrower for the loan on the basis of whether he could pay the initial, far lower ("teaser") interest rate rather than the fully indexed rate
- The borrower could not afford to pay the fully indexed interest rate (even if the borrowers "stated income" was accurate – it was typically inflated)
- The loan payments were less than the interest due (negative amortization)
- The home was not being purchased by someone who would occupy the home (despite a contrary representation on the application)
- While it was never typical, it became common for the mortgage term to be 40 years

Any experienced lender, investment banker, accountant, regulator, or rating agency official would recognize that this was a formula for disaster. They would also understand that packaging a thousand of these toxic mortgages together in a collateralized debt obligation (CDO) in which 80 percent of the derivative was structured as top "tranche" and was supposedly worthy of a "AAA" rating was too good to be true. CDOs are no better than the underlying mortgages (the various "credit enhancements" proved ephemeral). I learned by reading here in Reykjavik a recently released governmental report on Iceland's banking crisis, that large amounts of worthless debt instruments of Iceland's "Big 3" banks were put into CDOs because their debt carried relatively high credit ratings. It should not be necessary to add that the ratings for the (deeply insolvent and massively fraudulent Icelandic banks) bore no relationship to reality and that this debt did not adequately "enhance" CDO credit quality.

I've discussed the warnings of an "epidemic" of mortgage fraud, which began in 2003, were embraced by the FBI in 2004, and were supplemented by warnings of endemic appraisal fraud in 2005. "Stated income" loans became known throughout the industry as "liar's loans" and grew to roughly 30% of total new mortgages by early 2007. Many lenders made liar's loans their primary product. How difficult was it for a regulator (or purchaser of nonprime mortgages or CDOs) to figure out that a business strategy of making "liar's loans" was imprudent?

The nonprime market also made no sense on other dimensions. As I've just explained, the risk of loss rose spectacularly during the decade as loan quality collapsed, fraud became endemic in nonprime loans, and the bubble hyper-inflated. Logically, this should have caused a dramatic increase in loss reserves and should have caused nonprime "spreads" to widen substantially. Instead, the officers controlling the lenders reduced loan loss reserves to ridiculous levels – and spreads narrowed. The first dimension demonstrates endemic accounting and securities fraud. The second dimension demonstrates that markets were not only "inefficient", but also became increasingly inefficient throughout the growing crisis.

While Greenspan and other failed regulators have claimed that no one warned of the coming crisis; that was truer of the S&L debacle than the current crisis. I've shown that there were strong, early warnings of endemic fraud and predictions that it would cause a crisis. Nonprime loans, as I've explained, had a consistently bad track record and their problems were sufficiently recent that they should have been well known to both private and public sector leaders. The Enron-era control frauds and New York Attorney General Spitzer's investigations were fresh in Americans' minds. Those frauds made clear that:

- The most elite corporations engaged in fraud
- Those frauds were led from the top
- Accounting fraud produced exceptional deception – firms such as Enron that were grossly insolvent and unprofitable purported to be immensely profitable
- The large frauds were able to get "clear opinions from top tier audit firms
- Executive compensation was a major driver of the frauds
- Banks funded the accounting control frauds rather than exerting effective "private market discipline" against them
- Effective regulation was essential to limit such frauds

During the S&L debacle, by contrast, only one economist (Ed Kane) warned publicly of a coming crisis arising from bad assets – and he did not warn about the wave of control fraud. Economists virtually unanimously opposed our reregulation of the industry (Paul Volcker was the leading exception). Economists, including Alan Greenspan, were leading allies of the worst S&L accounting control frauds.

The most difficult aspect of the current crisis to contain was that roughly 80% of nonprime loans were made by entities not subject to direct federal regulation (primarily mortgage bankers). (Note that this also meant they were not subject to the Community Reinvestment Act (CRA) and to requirements to file criminal referrals.) The Federal Reserve (Fed), however, had unique statutory authority to regulate all mortgage lenders under the Home Ownership and Equity Protection Act of 1994 (HOEPA), but Greenspan and Bernanke refused to use it. Finally, over a year after the secondary market in nonprime loans (CDOs) collapsed, and after Congressional pressure to act, the Fed used its HOEPA authority to order an end to some of the most abusive nonprime lending practices. Prior to that time, the federal regulatory agencies acted aggressively throughout the decade to assert federal "pre-emption" of state regulation as a means of attempting to prevent the states from protecting their citizens from predatory nonprime lenders.

All the regulators needed to do to prevent the crisis was ban lending practices that were rational only for control frauds engaged in looting. The regulators consistently refused to do so because of their anti-regulatory ideology. Traditional mortgage underwriting practices are highly effective against fraud. The regulators knew what reforms would work, but refused to mandate the reforms.

By the time this crisis began economists (Akerlof & Romer 1993), regulators (Black 1993); and criminologists (Calavita, Pontell & Tillman 1997; Black 2003; Black 2005) had developed effective theories explaining why combining financial nonregulation and modern executive and professional compensation produced criminogenic environments that led to epidemics of accounting control fraud. We also explained why these were near perfect frauds and explained how control frauds used their compensation and hiring and firing powers to create a "Gresham's" dynamic that allowed them to suborn the "independent" professionals that were supposed to serve as "controls" and transform them into allies. (This is similar to HIV's ability to infect the immune system.)

One of the important practical aspects of control fraud research findings is the existence of fraud "markers." These can be used to identify the frauds even while they are reporting record profits and minimal losses. The fraud markers also make it possible to prosecute successfully complex frauds because jurors can understand that it makes no sense for honest firms to engage in such practices but makes perfect sense for frauds.

Equally importantly, our research showed how to contain a spreading epidemic of accounting control fraud. These policies were exceptionally effective in containing the S&L debacle. The existence of these research findings and our regulatory record of successful efforts against the accounting control fraud should have made it far easier for our regulatory successors (and any honest bankers) to identify the frauds at an early date and take effective action against them.

What if We Had Looked?

Within the last month, facts have been revealed about three massive nonprime players that show the strong evidence of elite criminality that would have been revealed – in some cases, five years ago – had there been real investigations.

WaMu

Readers interested in reading the Senate Permanent Subcommittee on Investigations' report and the underlying documents can find them through this link:
http://levin.senate.gov/newsroom/release.cfm?id=323765

WaMu was an obvious disaster. Its advertising campaign mocked prudent bankers and made it clear that WaMu's answer to potential borrowers would be "yes." Here are the high points picked up by the *New York Times* and the *Huffington Post* in two recent columns:

http://www.nytimes.com/2010/04/13/business/13wamu.html?hpw

April 12, 2010

Memos Show Risky Lending at WaMu

By SEWELL CHAN

WASHINGTON — New documents released by a Senate panel show how entrenched Washington Mutual was in fraudulent and risky lending, and highlighted how its top executives received rewards as their institution was hurtling toward disaster.

> The problems at WaMu, whose collapse was the largest in American banking history, were well known to company executives, excerpts of e-mail messages and other internal documents show.
>
> The documents were released on Monday by the Senate Permanent Subcommittee on Investigations, which began an inquiry into the financial crisis in November 2008. The panel has summoned seven former WaMu executives to testify at a hearing on Tuesday, including the former chief executive Kerry K. Killinger.
>
> The panel called WaMu illustrative of problems in the origination, sale and securitization of high-risk mortgages by any number of financial institutions from 2004 to 2008.
>
> "Using a toxic mix of high-risk lending, lax controls and compensation policies which rewarded quantity over quality, Washington Mutual flooded the market with shoddy loans that went bad," the panel's chairman, Senator Carl Levin, Democrat of Michigan, said.
>
> Mr. Killinger was paid $103.2 million from 2003 to 2008. In WaMu's final year of existence, he received $25.1 million, including a $15.3 million severance payment.

In fairness to the reporter, I note that reporters rarely write their headlines. The headline, however, exemplifies the weak analysis and lack of candor that dominates coverage of this crisis. WaMu's failure was caused by fraudulent lending practices, not "risky lending." "Risk", as we conventionally use that word in economics and finance, had nothing to do with any of the three epidemics of accounting control fraud. WaMu's senior managers deliberately put in place incentive structures that produce massive fraud – then gutted the protections (underwriting and controls) that honest lenders use (successfully) to limit fraud. In combination with providing trivial loss reserves and an executive compensation system based largely on short-term accounting "income", this produced a "sure thing." It was certain that the strategy would produce record (albeit fictional) short-term profits. If other lenders followed similar practices (as was extremely likely), it was also certain hyper-inflate the bubble. That meant WaMu's bad loans could be masked for years through refinancings (WaMu also delayed the recognition of losses by making primarily option ARM loans that allowed extremely low mortgage payments for up to a decade – payments so low that they produced serious negative amortization.) By masking the inevitable defaults for many years the senior executives were able to be become exceptionally wealthy. It was also certain that this would lead to disaster for the firm. But the failure of the firm does not represent a failure of the fraud scheme.

Criminologists view WaMu as a "vector" spreading the fraud epidemic through the financial system. But one should have limited sympathy for the purchasers of WaMu's fraudulent loans for the reasons the Fitch study demonstrated. The fraudulent mortgages were typically obvious on the face of the document. Had the purchasers of WaMu's mortgages, typically (allegedly) sophisticated parties, engaged in due diligence they would have found widespread fraud. Indeed, that is one of the weaknesses of endemic mortgage fraud – it is relatively easy to spot. The purchasers, however, engaged in "don't ask; don't tell" because their senior officers knew that purchasing relatively high yield nonprime loans would produce record short-term accounting income (and extraordinary compensation).

Killinger was made rich by the lending policies that destroyed WaMu. The fact that he is complaining in his Congressional testimony that it was "unfair" that the taxpayers didn't bail out WaMu after he trashed it epitomizes the demise of elite accountability and its replacement with a sickening sense of absolute entitlement of the group that Simon Johnson and Peter Kwak aptly refer to as the financial "oligarchs" (2010).

http://www.huffingtonpost.com/2010/04/13/kerry-killinger-exwamu-ce_n_535749.html

Kerry Killinger, Ex-WaMu CEO, It's 'Unfair' Bank Didn't Get Bailed-Out

MARCY GORDON | 04/13/10 11:35 AM | AP

> WaMu was one of the biggest makers of so-called "option ARM" mortgages. They allowed borrowers to make payments so low that loan debt actually increased every month.
>
> The Senate subcommittee investigated the Washington Mutual failure for a year and a half. It focused on the thrift as a case study on the financial crisis.
>
> Senior executives of the bank were aware of the prevalence of fraud, the Senate investigators found.
>
> The investors who bought the mortgage securities from Washington Mutual weren't informed of the fraudulent practices, the Senate investigators found. WaMu "dumped the polluted water" of toxic mortgage securities into the stream of the U.S. financial system, Levin said.
>
> In some cases, sales associates in WaMu offices in California fabricated loan documents, cutting and pasting false names on borrowers' bank statements. The company's own probe in 2005, three years before the bank collapsed, found that two top producing offices – in Downey and Montebello, Calif. – had levels of fraud exceeding 58 percent and 83 percent of the loans. Employees violated the bank's policies on verifying borrowers' qualifications and reviewing loans.

Citicorp

The full prepared statement of Mr. Richard Bowen, Former Senior Vice President and Business Chief Underwriter of CitiMortgage Inc. before the Financial Crisis Inquiry Commission on April 7, 2010 can be found here:

http://www.fcic.gov/hearings/04-07-2010.php

Mr. Bowen's testimony received far less attention because he testified on the same day as Alan Greenspan and Citi's former top officials. This is unfortunate because he was far more candid about Citi's operations than were its former senior officials. Mr. Bowen disclosed that Citi was also a massive vector, selling roughly $50 billion annually in mostly bad mortgages (primarily to Fannie and Freddie).

> The delegated flow channel purchased approximately $50 billion of prime mortgages annually. These mortgages were not underwriten by us before they were purchased. My Quality Assurance area was responsible for underwriting a small sample of the files post-purchase to ensure credit quality was maintained.
>
> These mortgages were sold to Fannie Mae, Freddie Mac and other investors. Although we did not underwrite these mortgages, Citi did rep and warrant to the investors that the mortgages were underwritten to Citi credit guidelines.
>
> In mid-2006 I discovered that over 60% of these mortgages purchased and sold were defective. Because Citi had given reps and warrants to the investors that the mortgages were not defective, the investors could force Citi to repurchase many billions of dollars of these defective assets. This situation represented a large potential risk to the shareholders of Citigroup.
>
> I started issuing warnings in June of 2006 and attempted to get management to address these critical risk issues. These warnings continued through 2007 and went to all levels of the Consumer Lending Group.
>
> We continued to purchase and sell to investors even larger volumes of mortgages through 2007. And defective mortgages increased during 2007 to over 80% of production.

Lehman Brothers

The bankruptcy examiner conducted an investigation of Lehman Brothers. The report reveals that Lehman Brothers was engaged in large scale accounting and securities fraud by failing to recognize losses so large that it had failed as an enterprise. Lehman's senior executives sought to cover up its failure with a series of very large ($50 billion) quarter end REPO transactions. Curiously, the report puts no emphasis on the underlying fraud that drove the fraud concentrates on the second-stage REPO cover up.

Here is a link to the full series of the bankruptcy examiner's reports:

http://lehmanreport.jenner.com/

My oral and written testimony before House Financial Services on April 20, 2010 provides a detailed description of the evidence indicating accounting control fraud at Lehman. Lehman was one of the principal vectors of liar's loans in the world. The links are:

http://c-spanvideo.org/program/id/222787

http://www.house.gov/apps/list/hearing/financialsvcs_dem/black_4.20.10.pdf

Goldman Sachs

Now, we learn that the SEC charges that Goldman Sachs should be added to the list of elite financial frauds. It is a tale of two (unrelated) Paulsons. Hank Paulson, while Goldman's CEO, had Goldman buy large amounts of collateralized debt obligations (CDOs) backed by largely fraudulent "liar's loans." He then became U.S. Treasury Secretary and launched a successful war against securities and banking regulation. His successors at Goldman realized the disaster and began to "short" CDOs. Mr. Blankfein, Goldman's CEO, recently said Goldman was doing "God's work." If true, then we know that God wanted Goldman to blow up its customers.

Goldman designed a rigged trifecta: (1) it secured additional shorting pressure from John Paulson (CEO of a hedge fund that Goldman would love to have as an ally) that aided Goldman's overall strategy of using "the big short" to turned a massive loss caused by Hank Paulson's investment decisions into a material profit, (2) helped make John Paulson a massive profit – in a "profession" where reciprocal favors are key, and (3) blew up its customers that purchased the CDOs. Paulson and Goldman were shorting because they believed that the liar's loans were greatly overrated by the rating agencies. Goldman let John Paulson design a CDO in which he was able to help pick the nonprime packages that were most badly overrated (and, therefore, overpriced). Paulson created a CDO "most likely to fail." Goldman constructed, at John Paulson's request, a "synthetic" CDO that had a credit default component (CDS). The CDS allowed John Paulson to bet that the CDO he had constructed (with Goldman) to be "most likely to fail" would in fact fail – in which case John Paulson would be become even wealthier because of the profit he would make on the CDS.

Now, any purchaser of the "most likely to fail" CDO would obviously consider it "material information" that the investment was structured for the sole purpose of increasing the risk of failure (and helping Goldman "big short" strategy designed to offset losses on Hank Paulson's worst investments). The SEC complaint says that Goldman therefore defrauded its own customers by representing to them that the CDO was "selected by ACA Management." ACA was supposed to be an independent group of experts that would "select" nonprime loans "most likely to succeed" rather than "most likely to fail." The SEC complaint alleges that the representations about ACA were false.

The obvious question is: did John Paulson and ACA know that Goldman was making these false disclosures to the CDO purchasers? Did they "aid and abet" what the SEC alleges was Goldman's fraud? Why have there been no criminal charges? Why did the SEC only name a relatively low-level Goldman officer in its complaint? Where are the prosecutors?

The Rating Agencies

The Senate has released documents from the rating agencies that demonstrate that they were willingly manipulated by perverse compensation arrangements to give grotesquely inflated ratings to liar's loans. At the barest minimum, the rating agencies were leading enablers of the downstream epidemic of accounting control frauds.

Fannie and Freddie

The SEC found accounting control fraud at Fannie and Freddie and forced large restatements of their financial statements. If they won their bet on interest rates they gained. When Fannie lost on its interest rate risk gambles it used fraudulent "hedge" accounting to avoid recognizing its losses. When Freddie won on its interest rate gambles it used fraudulent "hedge" accounting to defer recognizing the gain until it had a bad quarter that would lead the executives to fail to obtain their maximum bonus. Freddie's managers could then make the gain magically appear so that they would receive their maximum bonus. (This is a variant on "cookie jar reserves.")

When the SEC found that Fannie and Freddie had engaged in accounting fraud their financial regulator, which was then OFHEO, forced CEO changes. OFHEO also (finally) limited what had been the rapid growth of their portfolio (which they used primarily to take interest rate risk prior to the SEC action.)

Because Fannie and Freddie were privatized, their officers designed their compensation system in the same perverse manner as most firms (Bebchuk & Fried 2004), they stood to gain enormous compensation if they inflated short-term accounting income. As Mr. Raines explained in response to a media question as to what was causing the repeated scandals at elite financial institutions:

> **We've had a terrible scandal on Wall Street. What is your view?**
> Investment banking is a business that's so denominated in dollars that the temptations are great, so you have to have very strong rules. My experience is where there is a one-to-one relation between if I do X, money will hit my pocket, you tend to see people doing X a lot. You've got to be very careful about that. Don't just say: "If you hit this revenue number, your bonus is going to be this." It sets up an incentive that's overwhelming. You wave enough money in front of people, and good people will do bad things.

http://msnbci.businessweek.com/magazine/content/03_20/b3833125_mz020.htm[1]

Raines learned that the unit that should have been most resistant to this "overwhelming" financial incentive, Internal Audit; had succumbed to the perverse incentive. Mr. Rajappa,

[1] Raines' observation about the perverse impact of such compensation systems has been confirmed by statistical tests. As Bebchuk & Fried, the leading experts on compensation systems, observed in their study of Fannie Mae's compensation system:

> As we noted at the outset, we do not know whether Raines and Howard were in any way influenced by the incentives to inflate earnings created by their compensation packages. There is a growing body of evidence, however, that in the aggregate, the structure of executive pay affects the incentive to inflate earnings.[10] For example, pay arrangements that enable executives to time the unwinding of equity incentives have been correlated with attempts to increase short-term stock prices by inflating earnings. Thus, the problem of rewards for short-term results is of general concern.
>
> n. 10 *See, e.g.*, Scott L. Summers & John T. Sweeney, **Fraudulently Misstated Financial Statements and Insider Trading: An Empirical Analysis**, 73 *Acct. Rev.* 131 (1998). For further discussion of this problem, see [Lucian Bebchuk & Jesse Fried, *Pay Without Performance: The Unfulfilled Promise of Executive Compensation* (2004):] at 183-85.

Executive Compensation at Fannie Mae: A Case Study of Perverse Incentives, Nonperformance Pay, and Camouflage. Lucian A. Bebchuk and Jesse M. Fried. *Journal of Corporation Law*, 2005, Vol. 30, pp. 807-822 (at p. 811).

Even scholars opposed to many aspects of financial regulation have noted the endemic nature of these perverse incentives and their close ties to accounting and securities fraud. Markham, Jerry W. **Regulating Excessive Executive Compensation – Why Bother?** (available on SSRN: See, e.g., pp. 20- 21). The depth of consensus on this issue is shown by the strong concurrence of the intellectual father of executive bonus systems, Michael Jensen, who has concluded that (as implemented) they have caused pervasive perverse incentives and led to endemic accounting and securities fraud. Jensen concludes:

- When managers make any decisions other than those that maximize value in order to affect reporting to the capital markets they are lying
- And for too long we in finance have implicitly condoned or even collaborated in this lying. Specifically I am referring to "managing earnings", "income smoothing", etc.

- When we use terms other than lying to describe earnings management behavior we inadvertently encourage the sacrifice of integrity in corporations and in board rooms and elsewhere

Recent Evidence from Survey of 401 CFO's Reveals Fundamental Lack of Integrity

- Graham, Harvey & Rajgopal survey ("Economic Implications of Corp. Fin. Reporting" http://ssrn.com/abstract=491627) of 401 CFOs find:
- 78% of surveyed executives willing to knowingly sacrifice value to smooth earnings
- Recent scandals have made CFOs less willing to use accounting manipulations to manage earnings, but
- Perfectly willing to change the real operating decisions of the firm to destroy long run value to support short run earnings targets

Jensen, Michael. **Putting Integrity Into Finance Theory and Practice: A Positive Approach (June 9, 2007)** (available on SSRN).

Senior Vice President for Operations Risk and Internal Audit instructed his internal auditors in a formal address in 2000 (and provided the text of the speech to Raines). ($6.46 refers to the earnings per share (EPS) number that will trigger maximum bonuses.)

> By now every one of you must have 6.46 branded in your brains. You must be able to say it in your sleep, you must be able to recite it forwards and backwards, you must have a raging fire in your belly that burns away all doubts, you must live, breath and dream 6.46, you must be obsessed on 6.46…. After all, thanks to Frank [Raines], we all have a lot of money riding on it…. We must do this with a fiery determination, not on some days, not on most days but day in and day out, give it your best, not 50%, not 75%, not 100%, but 150%. Remember, Frank has given us an opportunity to earn not <u>just</u> our salaries, benefits, raises, ESPP, but substantially over and above if we make 6.46. So it is our <u>moral obligation</u> to give well above our 100% and if we do this, we would have made tangible contributions to Frank's goals (emphasis in original).

In addition to allowing the CEO to convert firm assets to his personal benefit through seemingly normal corporate means, executive compensation has two additional advantages to accounting control frauds. The CEO of a large corporation cannot send a memorandum to 5000 employees instructing them to commit accounting fraud – but he can send the same message with near impunity through the compensation system. The CEO ensures that the compensation system creates a criminogenic environment that produces powerful incentives for subordinated to engage in accounting fraud in order to maximize their bonuses (which will maximize the CEO's bonus and the value of his stock) – all with complete deniability from the CEO. Generous bonuses for even lower level managers also provide a powerful social pressure against whistle blowers coming forward and leading all their peers to lose their bonuses.

Fannie and Freddie CEOs caused them to purchase huge amounts of nonprime assets because, with their growth restricted the way to create fictional accounting income and maximize their bonuses was to purchase for their portfolio the highest yield assets. This is the same strategy that most of the investment banker CEOs followed. OFHEO had ample regulatory power to order that an end to this strategy. It failed to do so because it did not believe that regulating assets purchases was an appropriate regulatory policy prior to those assets causing serious losses. The bubble masked those losses by allowing refinancing. The CEOs of Fannie, Freddie, Bear Stearns, Citi, Wachovia, Merrill Lynch, and Lehman followed similar strategies for the same perverse reasons (and that list is not exhaustive).

Other Nations Suffering from Control Fraud during this Crisis

Very recent reports by governmental authorities in Ireland, Afghanistan, and Iceland provide strong support for concerns that control fraud played a role in their bank failures.

Specific Proposals to Reduce and Deter Accounting Control Fraud

1. Eliot Spitzer, Frank Partnoy and I proposed in our December 19, 2009 op ed in the *New York Times* – that AIG's emails and key deal documents be made public so that we can

investigate the elite control frauds. (I have called for the same disclosures of Fannie and Freddie's key documents.) Goldman used AIG to provide the CDS on these synthetic CDO deals and Hank Paulson used our money to bail out Goldman when AIG's CDS deals drove it to failure. Treasury also used AIG to secretly bail out UBS – a massive Swiss bank engaged in a conspiracy with wealthy Americans to commit tax evasion/fraud. In essence, Americans paid UBS' fine – and gave it over $4 billion is walking away money. AIG was not federally insured. The U.S. had no responsibility to bear its losses. AIG's managers, directors, and trustees have failed to make any response to our requests that they assist these vital investigations by releasing the documents. (I have received no response to my similar open requests to Fannie and Freddie.)

2. Clarify that investors and creditors may pursue a private right of action against those that "aid and abet" relevant frauds under the securities laws.
3. Enact Representative Kaptur's bill to authorize, fund and direct the FBI to hire 1000 additional white-collar crime specialists as FBI agents to replace those transferred to national security and add resources necessary to take on the backlog of control frauds.
4. The regulators, FBI, and DOJ should follow a successful strategy used during the S&L debacle and create a "Top 100" priority list of the most significant criminal cases arising from the Great Recession.
5. All home lenders should be required to file criminal referrals (SARs) when they discover a reasonable suspicion of a federal crime.
6. The regulatory agencies should revitalize their criminal referral processes (which effectively ceased to exist with regard to control frauds).
7. The regulatory agencies should "detail" experienced examiners and supervisors to the FBI and DOJ so that they can serve as "Sherpas" to aid the investigations and prosecutions and have access to "6e" grand jury materials.
8. DOJ/FBI should create a national task force to investigate the systemically dangerous institutions (SDIs) and other major originators, sellers, and purchasers of nonprime paper and financial derivatives.
9. Where appropriate, the FBI should use undercover investigators and electronic surveillance in investigating control frauds.
10. The FBI should terminate immediately its "partnership" with the MBA.
11. The regulatory agencies should reinstate requirements for full underwriting of income, assets, liabilities, credit ratings, and appraised values for all mortgage lenders. They should, by rule, require that this underwriting be evidenced contemporaneously in writing

and be maintained on site for at least five years (and off site for ten years from the date of the loan being made). While violating such rules is not a crime, this requirement is one of the most effective means of establishing the necessary intent of those that seek to evade the requirement.

12. The agencies should immediately review every significant nonprime lender under their jurisdiction to determine whether they have made roughly the number of criminal referrals that would be expected given the epidemic of mortgage fraud. Where lenders have filed far too few referrals they should be priorities for special purpose examinations to determine whether their failure to file referrals is an indicator that they are a control fraud.

13. The regulatory agencies, including the CFTC, SEC, FBI, and DOJ, should create a position of the "Chief Criminologist" staffed by someone tasked with remaining current with white-collar criminological findings and ensuring that such findings, where relevant, be provided as input to senior decision-makers.

14. Create minimum federal requirements for fiduciary duties, which have been badly eroded by state "competition in laxity." Delaware corporations, for example, have generally eliminated the duty of care.

15. Take conflicts of interest exceptionally seriously. Forbid financial institutions to make any loans to their employees, officers, boards, and professionals (e.g., senior personnel of their outside auditors and rating agencies).

16. Remove the perverse incentive caused by compensation not tied to demonstrated, long-term performance. This is one of the leading criminogenic environments globally.

17. Reform professional compensation to remove the perverse incentives and "Gresham's dynamic" now common.

Biography of William K. Black

Bill Black is an Associate Professor of Economics and Law at the University of Missouri – Kansas City (UMKC). He is a white-collar criminologist. He was the Executive Director of the Institute for Fraud Prevention from 2005-2007. He has taught previously at the LBJ School of Public Affairs at the University of Texas at Austin and at Santa Clara University, where he was also the distinguished scholar in residence for insurance law and a visiting scholar at the Markkula Center for Applied Ethics.

He was litigation director of the Federal Home Loan Bank Board, deputy director of the FSLIC, SVP and General Counsel of the Federal Home Loan Bank of San Francisco, and Senior Deputy Chief Counsel, Office of Thrift Supervision. He was deputy director of the National Commission on Financial Institution Reform, Recovery and Enforcement. His regulatory career is profiled in Chapter 2 of Professor Riccucci's book *Unsung Heroes* (Georgetown U. Press: 1995), Chapter 4 ("The Consummate Professional: Creating Leadership") of Professor Bowman, et al's book *The Professional Edge* (M.E. Sharpe 2004), and Joseph M.

Tonon's article: "The Costs of Speaking Truth to Power: How Professionalism Facilitates Credible Communication" *Journal of Public Administration Research and Theory* 2008 18(2):275-295.

George Akerlof called his book, *The Best Way to Rob a Bank is to Own One* (University of Texas Press 2005), "a classic." Paul Volcker praised its analysis of the critical role of Bank Board Chairman Gray's leadership in reregulating and resupervising the industry:

> Bill Black has detailed an alarming story about financial - and political - corruption. The specifics go back twenty years, but the lessons are as fresh as the morning newspaper. One of those lessons really sticks out: one brave man with a conscience could stand up for us all.

Robert Kuttner, in his *Business Week* column, proclaimed:

> Black's book is partly the definitive history of the savings-and-loan industry scandals of the early 1980s. More important, it is a general theory of how dishonest CEOs, crony directors, and corrupt middlemen can systematically defeat market discipline and conceal deliberate fraud for a long time -- enough to create massive damage.

Black developed the concept of "control fraud" – frauds in which the CEO or head of state uses the entity as a "weapon." Control frauds cause greater financial losses than all other forms of property crime combined and kill and maim thousands. He helped the World Bank develop anti-corruption initiatives and served as an expert for OFHEO in its enforcement action against Fannie Mae's former senior management.

He teaches White-Collar Crime, Public Finance, Antitrust, Law & Economics (all joint, multidisciplinary classes for economics and law students), and Latin American Development (co-taught with Professor Grieco, UMKC – History).

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