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Lessons Learned: Steven H. Kasoff

Matthew A. Lieber

Yale Program on Financial Stability
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By Matthew A. Lieber

Steve Kasoff was employed at Elliott Management Corporation from 2003 until 2020. His responsibilities centered on developing the structured products and real estate groups at Elliott. He was made senior portfolio manager, a member of the firm's management committee, and equity partner. Kasoff has extensive experience in the origination, trading, and management of structured products such as collateralized debt obligations (CDOs) and mortgage-backed securities, including earlier posts at Deutsche Bank, Merrill Lynch, and Lehman Brothers. He earned his BA in economics from Yale College and his MBA in finance from the Wharton School of the University of Pennsylvania.

In 2016, Kasoff joined the advisory board of the International Center for Finance at the Yale School of Management. After retiring from Elliott in 2020, he began to work with the Yale Program on Financial Stability (YPFS). This Lessons Learned summary is based on two interviews of Kasoff by YPFS and is part of an investigation he spearheaded into the subprime securitization boom before the financial crisis—the Inside the CDO Machine *project—which includes interviews with financial industry practitioners. The complete* Inside the CDO Machine *project materials can be accessed on the YPFS Lessons Learned website: https://som.yale.edu/centers/program-on-financial-stability/lessons-learned-oral-history-project.*

Kasoff started his career during a decade of innovation in credit derivatives.

Across the three decades of Steve Kasoff's highly successful Wall Street career, a defining period came when he was one of the first short sellers of subprime CDOs from 2004–07. The shrewd trading strategy that he led at Elliott Management earned outsized returns for the hedge fund. Paving the way for this success was Kasoff's earlier career experience structuring debt securities for top sell-side firms. His involvement in these earlier innovations in structured finance also shows the transformation of fixed-income markets.

Kasoff's first job on Wall Street put him at "the birth of the market" of securities made from defaulted mortgage loans. In the aftermath of the savings and loan (S&L) crisis, the US created the Resolution Trust Corporation to take defaulted mortgage loans off the books of the banks and S&Ls and securitize them to maximize the government's recovery. For two years at Lehman Brothers, Kasoff helped structure mortgage-backed securities from the defaulted commercial mortgage assets. In 1995–97, Kasoff went to business school, interning at Merrill Lynch in summer 1996 and keeping close tabs on industry trends.

> There was this new product that people were working on called CDOs, collateralized debt obligations.[1] It was sort of like mortgage-backed securities, except you're putting high-yield bonds or loans into the pools instead of mortgages.

The CDO model first emerged as a fixed-income subsegment in the 1990s in the form of CLOs (collateralized loan obligations) and CBOs (collateralized bond obligations), which owned high-yield corporate debt. CDOs took off in popularity in the 2000s when they integrated subprime residential mortgage-backed securities (RMBS). The RMBS owned by this type of CDO were typically rated BBB or better. As a result, CDOs were more levered than CLOs or CBOs.

In 1997, Kasoff was hired by Merrill to structure and evaluate the new CDO products. In 1999, Deutsche Bank poached Kasoff and others in his group from Merrill and tasked him to build out the German bank's CDO business. While at Deutsche, Kasoff led the development of CBOs and CLOs backed by European debt, an innovation made possible by the newly created common currency, the euro.

The 2001–02 recession resulted in business failures that generated new waves of distressed corporate assets. CLOs and CBOs that owned these bonds and loans began to trade at distressed levels; however, that market was very illiquid. Increasingly, investors wanted to buy and sell these assets. Around this time, activist investor Paul Singer's hedge fund was getting sales calls offering distressed CDOs; Elliott Management sensed an opportunity to move beyond its core equity focus. In 2003, Elliott hired Kasoff to build a group to invest in these structured products. "That was right at the beginning of a huge proliferation in new products in the credit markets," Kasoff said.

Derivative indexes backed by pools of credit default swaps (CDS) that referenced corporate bonds were trading with increased liquidity, and in 2003, tradable tranches of these indexes were created. These tranches enabled investors to buy or short a different slice of the risk, at a more junior or senior level, with a higher or lower return accordingly.

> That made it really interesting because now you could actually trade this product in a relative value way by matching up CDOs with things that you could trade from the short side, to isolate value and do creative things.

At the same time, opportunities were developing to trade CDOs backed by debt other than corporate bonds. A large volume of "multisector CDOs" had been created in the late 1990s through 2000, which owned investment-grade corporate bonds (including many that later defaulted, such as Enron and WorldCom), aircraft equipment trust certificates, credit card ABS (asset-backed securities), auto loan ABS, and both residential and commercial

[1] A collateralized debt obligation (CDO) is an asset-backed security issued by a special purpose vehicle, a business entity formed specifically to issue that CDO. See Michael Schmidt, "CMO vs CDO: Same Outside, Different Inside," Investopedia, updated January 31, 2022, https://www.investopedia.com/articles/investing/111213/cmo-vs-cdo-same-outside-different-inside.asp.

mortgage-backed securities. These CDOs also became distressed as a result of defaults in parts of their underlying portfolios.

> [The aircraft leases] also performed horribly after 9/11 for obvious reasons. And so that became a part of the distressed trading opportunity. What was left in these CDOs was mortgage-backed securities. And most of that was subprime. It got me focused on looking at the opportunity in subprime.

And there would be lots to look at. By 2004, the excitement around creating new derivatives in the corporate world had spilled over onto the mortgage side. The subprime RMBS tranches in those multisector CDOs had performed well, it turned out, while other parts of the portfolio had underperformed. From this discovery, market participants realized, it would be attractive to create CDOs backed entirely by subprime RMBS tranches.

Product and machine: Kasoff described the structure of a subprime CDO and the main players.

Kasoff described in detail the roles played by the five main players making up the mortgage-backed "CDO machine" (FCIC 2011, 130)—the securities firms (or "dealers"), CDO managers, rating agencies, investors, and financial guarantors. Investment banks and CDO managers worked closely together in the initial production and distribution phases.

> If you're a Merrill or Deutsche, for example, and you have a group of people that structure CDOs, what you're doing as that banker is, you're going into a CDO manager and pitching the idea of "Hey, why don't you do a CDO? And we'll work on it for you. And we'll charge a little bit to structure it, and you'll earn your 30 or 50 basis points running management fee on that portfolio."

The CDO manager selected the subprime bonds and worked with the dealer to market it to investors. The dealer warehoused the assets purchased by the CDO manager on behalf of the CDO. During this "ramp-up," the dealer structured the CDO. The CDO managers were not risk-takers; rather, their fee-based business incentivized them to increase assets under management. Kasoff outlined the capital structure of a typical subprime CDO.

- The first 0% to 5% of risk (the "first loss" tranche) would be unrated;
- The next 5% to 10% would be BBB;
- 10% to 15% would be A;
- 15% to 20% would be AA;
- And then about 20% to 100% would be rated AAA.

Regulatory frameworks made subprime CDOs very appealing for institutional investors.

Investors in CDOs, or "long-side buyers," came from the largest set of fixed-income investors, namely banks and insurance companies. These institutional buyers were drawn to CDOs for their relatively high yields at each rating level. For example, an A-rated tranche of a subprime CDO might have had a credit spread of 150–200 basis points (bps), whereas the spread for a similarly rated subprime RMBS tranche was only 50 bps, and corporate bonds were even lower. Driven by regulatory frameworks, CDO investors optimized their portfolios based on each asset's yield and the amount of capital required to be held against it, which in turn was based on the rating. For insurers, the investment sweet spot was a combination of A-rated and BBB tranches. Large money center banks tended to prefer more senior tranches. One big bank would often buy the entire $400 million–$500 million AAA tranche. The more speculative tiers of BBB and equity of the CDO—often a $40 million–$50 million slice each—were harder to move and mainly went to hedge funds or high-net-worth investors.

Key to CDOs' appeal was a rating transformation: BBB subprime bonds were securitized into a structure composed mainly of a AAA tranche.

Crucially, CDO deals needed credit ratings to happen, Kasoff explained. Rating agencies Standard & Poor's and Moody's provided the ratings that institutional investors relied on.

> Nobody was going to buy 85, 90% of the capital structure without ratings, even if you could show somebody that you had a ton of subordination and that it was bulletproof for credit risk. Without a rating, it didn't make sense because they would have to hold too much capital against it.

A rating transformation occurred when BBB subprime bonds were securitized into a structure composed predominantly of a AAA CDO tranche.

Rating agencies used ill-fitting models to provide favorable ratings—and disregarded feedback from the markets.

This transformation rested on quantitative models that the rating agencies had developed for corporate credit. Their analytic framework assumed that "the portfolio of assets could be modeled as a quantifiable number of independent default probabilities." In other words, that *the risk on any one bond was independent of, or at least not well correlated to, another*. The framework's model then mathematically calculated the default probability distribution of the aggregate portfolio. However, Kasoff said, "when you started going into portfolios that were entirely mortgage risk, you didn't have diversity."

Much criticized, the agencies typically responded that their role was "to assess credit risk, not market risk." But the agencies should have heeded market prices more, Kasoff contended, noting that they overlooked market signals and continued to issue inflated ratings. He sensed "a certain amount of hubris" among rating analysts when they rebuffed questions about the adequacy of their models. He described a practitioner roundtable in 2006–07 hosted by a senior member of S&P's structured group for 50 analysts to hear from

a panel of market insiders, ostensibly to better understand the thinking of those using their ratings.

> I was invited to [speak at] one of these roundtable meetings. I told [the host] beforehand, "I might say some things that you won't be happy with." And he said, "Yeah, it's OK, come on in." So I said it, right in front of that whole group: "The high correlation, or lack of diversity, meant that *the ratings were wrong"* [italics added]. I remember this well—his boss had coincidentally walked out of the room before I made the comment. When I talked to him afterwards, he said, "I'm glad you made the comment for the analysts to hear, but I'm also glad she had left the room before that."

Whatever unease there may have been at the agencies did not matter, for an obvious reason. By 2005, Kasoff pointed out, structured credit securities had become the largest segment of the rating agencies' business, approaching 50% of revenues, up from 0% in 1995.[2]

Synthetic CDOs enabled Wall Street firms to cater to massive demand.

Hedge funds that specialized in structured credit were buying CDOs of distressed assets and eager for ways to lock in gains. The natural question was, "I'm effectively buying indirectly a portfolio of subprime bonds. How can I short something that looks similar?"

Very quickly, Wall Street developed a standardized pay-as-you-go credit default swap. This product replicated the risk profile of any specific subprime RMBS bond and removed the need to find someone who owned it and was willing to sell it. Similarly, for someone who wanted to short the bond, the CDS eliminated the need to find a bond that could be borrowed (the normal process for shorting securities). The pay-as-you-go CDS gave rise to the synthetic CDO, a subprime CDO in which the subprime bonds "owned" by the CDO were actually held through CDS contracts; the synthetic CDO did not own actual bonds.

In some cases, the AAA tranche issued by the CDO could be structured as a CDS instead of as a bond. AIG and other insurance companies were principal writers of CDS on the AAA tranches of these CDOs; by selling protection, they were effectively getting exposure to a AAA CDO tranche and earning premia on the contract. AIG, as well as large monoline insurance companies, sold protection on AAA tranches very cheaply. Notably, regulators did *not* require these insurers to hold *any* capital against the risks they were insuring.

The effects of synthetic CDOs were threefold. First, they expanded the market, removing the constraint of a limited number of mortgage assets. The pay-as-you-go CDS, Kasoff said, "was one of the ways that the market started to pay attention to subprime, which up until that point had been the relatively esoteric corner." Synthetic CDOs and their component contracts enabled more investors to join the boom in CDO investing. In 2005 and 2006, CDOs issuance

[2] For 2006, revenues from structured credit made up 45% of Moody's credit ratings business, and S&P was doing more business than Moody's (FCIC 2011, 149; Moody's Corporation 2007, 19–21; McGraw Hill Companies 2007, 38–42).

volume increased dramatically, due to growing global demand from clients in Europe and Asia for the higher yields offered by these securities.

Second, synthetic CDOs accelerated the speed and ease of taking a position, removing the months-long wait and warehouse risk of the "ramp-up" process. "Synthetics allowed you to bypass accumulation, to snap your fingers and be done," explained Kasoff. Third, synthetic CDOs enabled unlimited leverage, since financial regulators did not require capital to be held against them. For example, "at Morgan Stanley, you had a prop desk that was buying these synthetic AAAs because they didn't have to hold any capital against it."

Crucially, the growth in synthetic CDOs was integrally tied not only to investors wanting yield but also—just as much—to the "shorts," the investors looking to hedge some prior exposure or to take more speculative positions against the housing market.

In 2004, a small number of contrarian investors began shorting subprime CDOs.

For a number of investors, the impetus to short subprime CDOs originated not as a bet against subprime but to reduce risk from CDOs already owned. "It was just a hedge against the CDOs," Kasoff said. But the move to lock in some gains got Kasoff and others thinking.

> The more you started looking at what was going on in subprime, you saw something was going very wrong. We all know the history, but as we looked at it then, we thought more and more about having the ability to short it.

The standardization of the pay-as-you-go CDS enabled large investors to establish a short position. Kasoff identified an evolution among investors in the thought process about shorting subprime CDOs. What had begun as a tactic to lock in gains from arbitrage had other uses. It occurred to many that they could do more with the shorts, that "this is a good core hedge against a recession." By the end of 2005 and early in 2006, after digging into their research on the housing situation, "we were starting to feel like, wow, this is an 'alpha short'—the short that wasn't just for hedging."

Shorting subprime CDOs was a lonely game.

Magnificently right in hindsight, the short investors confronted a prevailing mindset with a powerful grip, Kasoff elaborated. "People on the long side would smirk at us. CDO managers were getting rich off of our stupidity." There was no community among shorts, nor much interaction between them. In any conversations with other hedge funds, "you'd still be very close to the vest."

"On the short side, you never really knew if you were right," said Kasoff. There were costly premia to be paid. Real moments of fear sparked short cover rallies. Through 2006, the bullish mentality of the housing boom prevailed, up until the bankruptcy of a small mortgage originator, MLN. In February 2007, the launch of the TABX index of CDO tranches bombed, leaving CDO investors exposed. But what at first appeared to be a big win only generated further qualms. Wall Street firms dodged calls from shorts to mark their CDS positions accurately. Kasoff recalled, "there were big fights around marks." Dealers, who enjoyed a

measure of control over short-term prices in the illiquid market for CDOs and subprime CDS, were awoken to the need to adjust their books—and to shed subprime and CDO exposure ASAP.

Strategies for shorting CDOs varied by firm type. One type, utilized by the hedge fund Magnetar Capital, was the unconstrained structured deal. John Paulson (of the hedge fund Paulson & Co.) eventually set up an entire fund dedicated to one trade. Barclays' ABS correlation desk ran a hedged book that attempted to mark its positions to market as well as it possibly could. Multisector hedge funds such as Elliott would dedicate a limit to a subprime shorting strategy for a given period.

> Let's say I'm a $10 billion fund and I'm comfortable with this trade being a 1% drag on my performance. Without this trade and in a good year, I expect to earn 10%. So now with the trade that'll be 9% instead. So that means I can spend $100 million a year in premium. And then you work backwards to optimize how you're going to spend that money.

One tactic common across different short sellers was to short subprime BBB tranches and buy the equity of a CDO that owned those or similar bonds. "CDO equity was popular," Kasoff explained, "because it mitigated the cost of shorting stuff because you had all of these other cash flows coming in." As interest in shorts grew in late 2006 and 2007, the cost of shorting the BBB increased. So hedge funds moved up the capital structure, shorting the A and AA tranches. Higher-rated tranches cost less to short, allowing sellers to amplify their bet. However, greater losses would be needed for those shorts to pay off.

The bigger picture: short sellers win; system fails.

Market events of 2006–07 reassured the short sellers "that this was a great trade." At worst, if they were wrong, their losses would be minimal. Most expected "that subprime would be a slow-moving train wreck because the bulk of the mortgage defaults would be concentrated around the reset dates on 2/28 ARMs or 3/27 ARMs."

But even the short sellers had been conservative in their 2006 assessments—and overly optimistic about housing markets. Subprime mortgage defaults spiked well *before* the resets were due to start in 2009. As markets digested news of losses in 2008, fights over marks grew heated, particularly when the counterparty was Lehman or Merrill. "A lot of people lost money because they weren't able to fully get the proper amount of margin when Lehman went under." The subprime losses came sooner than expected, revealing a greater vulnerability and triggering a global financial crisis.

The broader housing market collapse that ensued was more massive and more resounding than almost anyone had imagined.

> What very few recognized at the time was how this little corner of the US mortgage market was turning into a systemic risk for the overall global markets. And that was not at all clear to anybody [then].

Kasoff connected trading strategies and market instability to system failure. The outstanding balance of all subprime loans around that time was $700 billion in an overall US mortgage market of $10 trillion. The subprime problem was not a systemic risk, the Federal Reserve had emphasized publicly as late as May 2007. But the damage would in fact extend beyond the reckless and the greedy. Financial dysfunction took down one great institution after another, threatened a global meltdown, and induced a Great Recession like none other.

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