Testimony of

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TURMOIL IN U.S. CREDIT MARKETS:
THE ROLE OF THE CREDIT RATING AGENCIES

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NOTE: The opinions and views expressed in this document are those of Dr. Cifuentes, who is appearing before the Committee on his own behalf and as a private citizen, and are not intended to represent the views or opinions of any organization.

Chairman Dodd, Senator Shelby, and Members of the Committee:

My name is Arturo Cifuentes and I am an investment banker based in New York City. I am pleased to be here today and honored to be invited to testify. Thank you for the opportunity.

My professional background is described in the **APPENDIX** to this document. I just want to point out that I seem to be one of the few professionals who (not because of any personal virtue, but rather as a result of chance) has worked in all the industries that are relevant in the context of the current discussion: rating agency; monoline (re-insurance company); hedge fund (asset management), and investment banking (in two capacities, research and origination/structuring). I hope my experience can be useful to illuminate our debate.

The issue at hand is serious, so I will get to the point right away. Once again, just to be clear: these are my personal opinions; I am here in my capacity as a private citizen and not on behalf on any organization.

I have expressed some of these views elsewhere in a more elaborated fashion (please see the **REFERENCES** cited at the end of this statement [1, 2, …, 19]) so I will just try to summarize the key ideas.

BACKGROUND

There is a widespread belief that the U.S. economy is experiencing something that euphemistically has been labeled as "credit crunch," "subprime crisis," or "credit turmoil." The reality, unfortunately, is far more serious. This crisis represents the collapse of the alternative banking system.

Alternative banking system refers to the financial system that was created using securitization techniques and credit derivatives during the past twenty years. This system (several US$ trillions in size) has been an engine of growth for the U.S. economy. Its power relied on the fact that it offered efficient financing to many borrowers that, for whatever reasons, were not welcomed by the traditional banking system. It also permitted, when used prudently, a more efficient risk management.

Sad to say, at the present time this system is broken.

Much has been said about the possible causes behind this crisis. But whatever one's preferred diagnosis, a fact remains: from a ratings' point of view this has been the worst disaster in the history of the fixed income markets. One telling example: As of this writing more than 120 collateralized debt obligations (CDOs, see Figure 1) appear to be "insolvent" (have reached a so-called event-of-default status). In addition, the number of AAA-rated CDO-tranches that have been downgraded (or defaulted) is alarming.

In essence, the rating agencies failed not once, but twice. First, they failed when they misrated a huge number of subprime securitizations or Residential Mortgage-Backed Securities (RMBS); and a second time, when they misrated the so-called CDOs of ABS (CDOs of Asset-Backed Securities), that is, re-securitizations that used RMBS-tranches as assets (See Figure 2.) CDOs of ABS accounted for more than 90% of the U.S. CDOs downgraded in 2007.

And to cap it all: they all failed together, that is, all the rating agencies made – broadly speaking— the same mistakes at the same time which, incidentally, raises a disturbing concern: to what extent are these ratings independent?

Consequently, at the heart of this crisis there is a painful truth: market participants do not believe in the rating agencies anymore. One of the keys to ending this crisis is restoration of confidence in the agencies and their methods of analyses.

In what follows, I will offer my views in terms of what I think should be done. I do not profess to have the ultimate and perfect solution for this difficult problem. My goal is rather to highlight certain critical issues that I think should be discussed in depth and have been overlooked or neglected so far.

THE CONCEPTUAL PROBLEM

The First Problem. The rating agencies were created with one goal in mind: to provide investors with useful information regarding credit risk. They called this information credit ratings and they chose to convey it using an alpha-numeric rating system (AAA to C).

Much later, regulators decided (since ratings already "existed") to use them as a basis to dictate rules in terms of capital requirements, what certain institutions could and could not buy, etc.

Inadvertently, this seemingly innocuous decision may have created a serious problem that has only now become apparent: Are the needs of these two constituencies (the regulator and the investor) the same? More to the point: Is a rating *useful* for the investor necessarily also *useful* for the regulator? The answer is not obvious and it needs to be explored. Granted, it is hard to claim that these two groups have opposite interests, but it is not clear that they are one-hundred per cent aligned either. For instance, one could make the case that an investor who trades these securities would benefit more from a timely change in ratings, that is, a more "dynamic" rating. On the other hand, somebody who looks at ratings to determine capital reserves may prefer a more stable (or "static") rating.

In other words: Did the regulators, by forcing the rating agencies to satisfy the needs of two masters, put them in a difficult position (where they would be ultimately doomed to fail both)? Something to think about.

The Second Problem. This issue is more subtle but equally relevant. At this point most people are already familiar with the rating symbols: AAA, AA, A, BBB, BB,B, CCC,CC, and C. In short, the assortment of letters that go from AAA all the way to C and denote different levels of credit risk. AAA means extremely safe (foolproof) whereas C means the asset is in default. That's the theory.

Actually, the letters themselves are irrelevant: what matters is that we have a scale with nine levels. (For simplicity I have left aside the fact that Moody's uses an equivalent but slightly different set of symbols: Aaa instead of AAA, Baa instead of BBB, etc; additionally, each of these categories can be broken down into three sub-levels, such as A1, A2 and A3, but this is not important now.)

What is important is that regulators, in the U.S. and overseas, have taken these symbols as if they were absolute standards based on well-known (and identifiable) parameters and used them to enact rules.

An example will clarify this problem. There is a regulation that states that an insurance company cannot hold on its books an asset whose rating is below investment grade (i.e. below BBB). It seems reasonable. Unfortunately, the regulator has not specified what BBB means. That power was given to an external agent: the rating agency. Not only that, the agency can change the BBB definition at will.

This situation is conceptually untenable. Who, in his right mind, would enact a law stating—for example—that in Washington, D.C. you cannot build a "tall building," and then, give a private company the right to specify what "tall building" means? A five-story building? A ten-story building? Who knows?

To sum up: regulators have given the rating agencies three powers. Let us use the BBB category as an example but the same holds for any other rating category.

- First, there is the power to define what a BBB-rating means and the ability to change that definition anytime.

- Second, the rating agency has the right to establish the method to determine if a given bond satisfies the BBB-rating definition; again, the agency can change this method at will.
- And third, they—and only they—have the right to use this method to decide if a bond meets the BBB-rating definition.

Triple-power seems like too much power.

THE MISCONCEPTIONS

The Fee Issue. The conventional view is that in a securitization the banker pays the rating fee and therefore this creates a conflict of interest. The reality is quite different. The banker raises some capital and when the securitization bonds are issued, simultaneously, a small fraction of this capital is used to pay all the parties involved in the transaction (rating agencies, law firms, accountants, trustee, bankers, etc.) Therefore, the alleged link between the rating agency fee and the banker is weak at best, not to mention that the same could be said about the fees of all the other parties.

The Agency-as-Architect Issue. There is the misguided notion that frequently the rating agencies design the transactions they rate by providing "excessive" guidance to the bankers. This is nonsense. The interaction between the bankers and the agencies is the normal give-and-take that one sees in any business where approval is needed to go ahead with a project.

The misguided insistence on focusing on these two non-issues is a dangerous waste of time that deviates the attention from the relevant problems.

THE MUST-DO (NOW) THINGS

The Chinese Wall. There is a far more serious conflict of interest than is commonly believed at the root of the current rating agency business model. Mark Froeba, a former Moody's analyst, has suggested separating the rating *business* from the rating *analysis*. It is an interesting idea. In fact, one could make the case that whenever a rating analyst is supervised by a manager whose compensation is determined by market share or revenue growth (rather than ratings accuracy) the objectivity of ratings is compromised. Interestingly, nobody has focused on this issue. But to the extent that rating analysts are not protected by Chinese walls the potential to exert undue influence on them is real.

Additionally, rating analyst's promotions, salary increases, and bonuses should not be tied to revenue increase or, market share metrics: ratings accuracy should be the only yardstick. Under the prevailing *modus operandi* (no Chinese wall to protect the analysts) this is impossible to implement.

It is worth remembering that a similar situation motivated the 2003 Global Research Analyst settlement.   (Before the settlement, *research* pieces were routinely written under inappropriate influence and ended up being nothing but propaganda dressed as *independent advice*.)

Incidentally, this kind of healthy separation is common in other businesses. For example, it would be unconceivable in a newspaper to have a manager with advertising growth responsibilities in charge of supervising an investigative reporter.

The Real Fee Issue. There is indeed a fee issue, but it's different from the one people have generally focused on. When rating a transaction the agencies get paid a significant upfront fee and a fairly minor (monitoring) fee over the life of the deal. Investors would be better served (and their interests would be more aligned with those of the agencies) if the rating fees were distributed more evenly over time. Additionally, they should be contingent on the accuracy of the ratings assigned to the investment-grade notes.

To be clear: a fraction of the total rating fee (for example, 30%) could be paid upfront. The remaining 70% (which should be paid over the life of the transaction) must be subordinated to the AAA-tranche payments (or the investment-grade tranches' payments). In other words, if the AAA-investor does not get its money, the agency does not get it either. There are, of course, variations of this idea but the goal is the same: align the interest of both, investors and agencies.

The Global Database. A major obstacle for a potential agency to enter the ratings market is the lack of historic data (past performance of previously rated instruments). Moody's and S&P already "have" a large amount of data on which they can rely. I have intentionally used the word "have" as opposed to "own" because I am not sure who owns the data. It seems to me, anyway, that if the ratings were paid for by the bankers (or the participants in a transaction) a case can be made that the data are not "owned" by the agencies. Or perhaps it should be made available (for a reasonable fee) to third parties. This is analogous to what happened with telephone companies. Eventually, the established companies were forced to permit new entrants to use their lines for a fee. Anyhow, making the ratings information available through a centralized global database would facilitate the entrance of new agencies. It would also facilitate a comparison between the agencies performance.

The Use of Black Boxes. The use of black boxes as part of the rating process must be eliminated. A black box is a computer program that receives a specific input and produces a given output (in this case a rating or a piece of information to be used in the rating process), but nothing or little is known about the method that the computer program uses. Rating methods should be disclosed in full so that market participants can build their own computer programs to replicate the agencies methodologies. The use of black boxes leaves everybody with a big disadvantage since the rules (structure of the black box) can be changed anytime and worse, not knowing what parameters drive the output, makes it very difficult for investors to interpret the meaning of the ratings.

Accountability and Barriers to Entry. In the face of what is the most egregious ratings disaster ever, market participants continue to ask themselves: If, with this dismal performance, the three rating agencies are still allowed to rate structured products, what else would it take to have them suspended?

That's why the thought of expediting the process to approve new agencies should be revisited. I am not a fan of the three-consecutive years in operation requirement (established by the Credit Rating Agency Reform Act of 2006). In fact, the current mess indicates that this requirement did little to help the already established agencies. Additionally, under the present circumstances regulators might be tempted to be forgiving with the existing agencies (and overlook their faulty performance) for the fear of creating a dangerous void.

TOPICS TO DISCUSS

Global Regulation. The fixed income market, and more specifically, the structured products market, is global in nature. It is not uncommon for a transaction to involve multiple jurisdictions as investors, asset originators, portfolio managers, trusts (SPVs), swap counterparties, etc. can be domiciled in different countries. This market does not lend itself to a fragmented (country-driven) regulatory framework. Geography, in the traditional sense of the term, is meaningless in this context.

If U.S. regulators do not move quickly and in a coordinated fashion with other counterparties to restore confidence there is a danger that other (European, U.K., etc.) entities could move on their own to enact local regulations. This situation could result in a set of multiple, but disconnected rules that will damage the efficiency of the fixed income market.

Independence. In principle, the rating agencies use different methods to assess credit risk and use different targets (or standards) to determine if a given instrument meets the target required to be AAA/Aaa, AA/Aa, etc. Therefore, and since the agencies are independent from one another, one would expect that at least, every now and then, they should produce different “results” (ratings). A study should be conducted by an independent internationally-recognized statistical consulting organization (there are well-established mathematical methods to conduct this type of analysis) to see if the ratings have been “independent.” Take, for example, all the CDO ratings given in a specific time period by Moody’s and S&P (to the same transactions) and compare them to see if they are “statistically different” or not. This is a much needed exercise.

I am not trying to suggest in any way that the existing agencies cooperated in any illegal fashion to produce the same ratings. What I am trying to point out is something different: that the present system seems to encourage a “race-to-the-bottom” type of environment which could have produced, as a byproduct, an undesirable “consistency” of ratings.

Rating Models. Much has been said about RMBS, but the most pronounced rating errors appear to have occurred in relation to the ratings of CDOs of ABS (or re-securitizations). Again, see Figure 2.

It is interesting to notice that Moody’s introduced in 1996 a method called The Binomial (see **REFERENCES** [20, 21]) to rate CDOs. To this day, Moody’s has used this method (or minor variations of it) to rate CDOs supported by corporate bonds, emerging market debt, and bank loans (collateralized loan obligations or CLOs). It seems that The Binomial method has done a decent job. It has “survived” two credit cycles and even now, under very stressful market conditions, CLOs analyzed with The Binomial approach seem to have performed satisfactorily.

On the contrary, CDOs of ABS, which apparently were analyzed with a different mathematical method (Monte Carlo simulations/Gaussian Copula), have exhibited a fairly bad performance. This new approach was introduced in the early 2000s. An approximate back-of-the-envelope calculation gives the impression that the so-called default probability and correlation assumptions used with this new (Monte

Carlo/Gaussian Copula) approach were more “relaxed” than the assumptions used with The Binomial method.

Although this observation is by no means conclusive, it points to the necessity to look into this issue more carefully. This might be the reason behind the abysmal performance of CDOs of ABS.

Other Topics. Some market participants have proposed certain ideas that are worth discussing: (1) the creation of a professional organization, independent of the rating agencies, to which rating analysts must belong and which sets forth ethical, educational, and professional standards; and (2) the modification of antitrust laws so the agencies can cooperate on establishing minimum standards.

CONCLUDING REMARKS

As the country appears to be entering what it seems to be the worst recession of the last fifty years, we must keep the following in mind:

- The banks have been badly damaged and will end up losing probably between US$ 300 to US$ 500 billion. Unless they are re-capitalized quickly their ability to lend will be severely curtailed.
- The alternative banking system, which, among other things, used to absorb more than 70% of the bank loans, is semi-paralyzed.
- Market participants do not seem to believe in the ratings anymore. The paralysis that is affecting certain markets is one undeniable indicator; the CDS (credit default swaps) spreads and bond yields observed in other markets –totally at odds with what ratings indicate—is another undisputable piece of evidence.

The combined effect of these three factors has the potential to make the upcoming recession even more serious.

With this sorry state of affairs, it is imperative that the confidence in the rating agencies is restored rapidly. Whether the agencies are guilty of incompetence (they tried to do the right thing, but they got it wrong) or something worse (they knew what they were doing, but seeking market share proved to be a more compelling driver than ratings accuracy) is immaterial at this point. The fact that matters is that they got too much too wrong, and the financial system is broken.

The U.S. capital markets are the envy of the free world: big, vigorous, creative, innovative, resilient and –above all— they benefit from a wide perception of transparency and honesty. In short, people trust them. But that trust has now been damaged. Specifically, the trust that American and foreign investors, once put on the rating agencies is now gone. The question is whether it will be gone forever or for a short time.

That is difficult to answer. But one thing is for sure: not taking a radical action to address this issue now could have a devastating effect on the U.S. capital markets. Once trust is lost, not much is left to lose. And after that, there is only room for regrets about what once was but it is no more. Let us not get there.

APPENDIX

Arturo Cifuentes

Professional Background

Dr. Cifuentes has worked in the fixed income sector for almost twelve years. He was a Senior Vice-President at Moody's (1996-1999) where he rated more than fifty CDOs; worked at Ambac in 1999/2000 as Managing Director in the Structured Products (CDO) department; managed a hedge fund that invested in CDOs for almost three years (Triton Partners, 2000-2003); and then became an investment banker (he was the Global Head of CDO Research at Wachovia and later joined R.W. Pressprich & Co. to focus on structuring and origination).

He has contributed to the development of many analytical techniques that are currently used in the structured finance arena; and he has lectured and consulted extensively on many financial topics in the U.S. and overseas. Most recently, he has advised the U.S. Treasury/OCC (several times); the State of Connecticut Insurance Department; and BCI (a Chilean bank). He has written extensively on financial topics in the international press, trade publications, and academic journals.

Before switching to the financial arena Dr. Cifuentes held scientific and engineering positions at the IBM T. J. Watson Research Center in New York and The MacNeal-Schwendler Corp., an engineering software firm based in Los Angeles. He has also held faculty positions at the University of Southern California, California State University and the University of Chile.

Dr. Cifuentes received a Ph.D. in applied mechanics and an M.S. in civil engineering from the California Institute of Technology (Caltech); an MBA in finance (Stern Scholar Award) from New York University; and a degree in civil engineering from the University of Chile.

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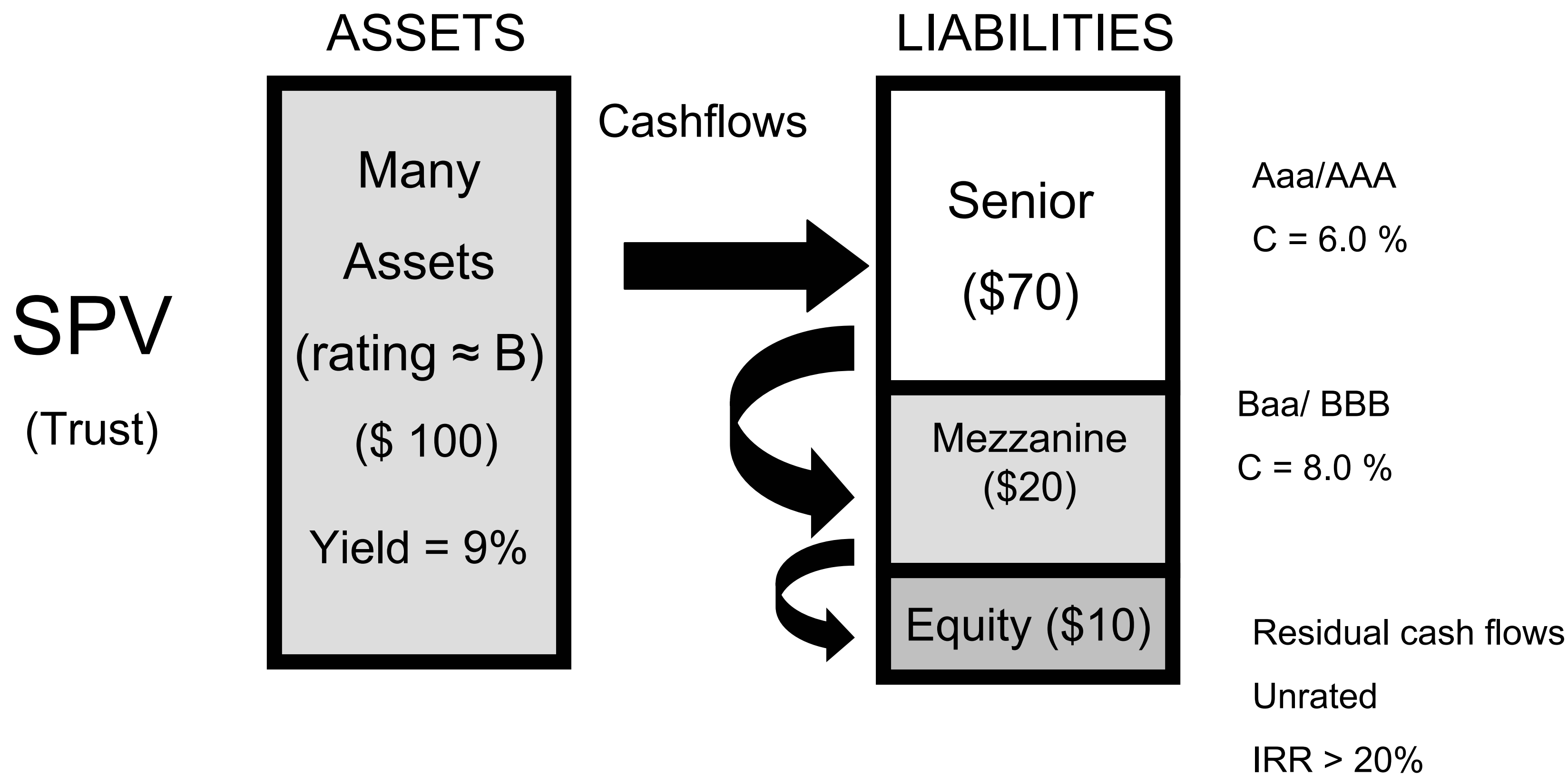
FIGURE 1: Mechanics of a CDO



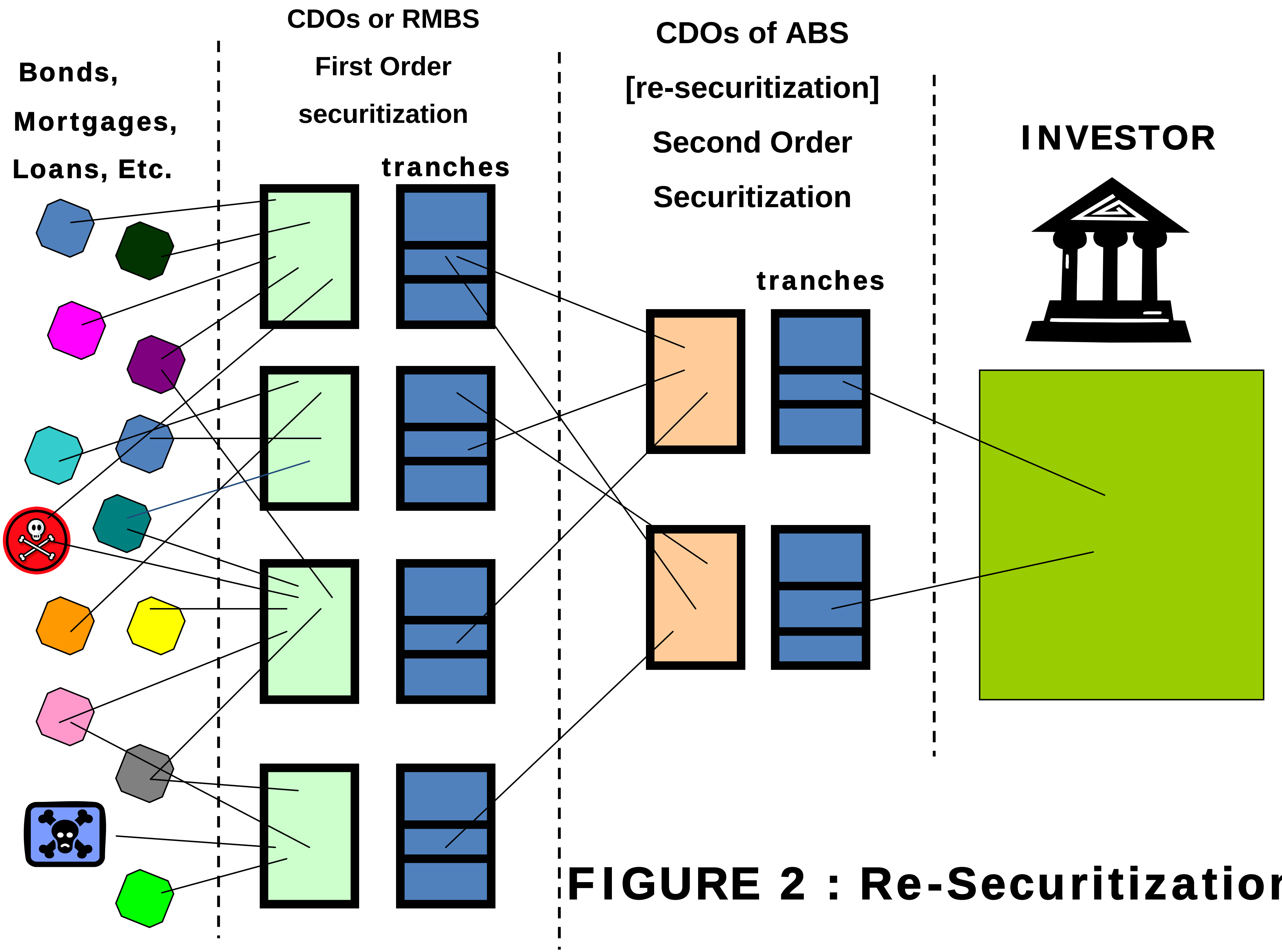


FIGURE 2 : Re-Securitizations