

4-1-2009

Cordelia Returns – Using Letters of Credit to Reduce Borrowing Costs

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Cover Page Footnote

I would like to thank Dean Emeritus Gerald T. McLaughlin of Loyola Law School for his encouragement and advice throughout the writing process.

CORDELIA RETURNS – USING LETTERS OF CREDIT TO REDUCE BORROWING COSTS

*Alireza Gharagozlou**

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I. INTRODUCTION

A. As Default Risk Increases, Interest Rates Go Up

When you get a loan, you are charged an interest rate commensurate with the risk of the loan. For example, when someone with very poor credit wants to get a credit card, they are given a very high interest rate of around 20-25%. However, when someone with excellent credit applies for a card, they are charged a lower rate, sometimes as low as 0%. This classification into creditworthy and credit-poor borrowers occurs not just when individuals borrow but also when large corporations, state governments, and even national governments borrow money. The United States government is thought to be among the most credit worthy borrowers in the world. When it borrows money, it pays a relatively low interest rate of about 4-5%.¹ However, when a distressed corporation borrows money, it may be forced to pay an interest rate as high as 14%.

The reason borrowers with poor credit are charged a higher interest rate is because they have a greater likelihood of default. The additional interest income is supposed to go into a pool to be used when this default occurs. For example, say one thousand people want to borrow money. The first thing the lender needs to do is classify them based on their credit rating; their credit rating being the likelihood that they will default on a loan. Assume the first borrower has a 10% chance of defaulting. He goes into the 10% group. The second borrower has a 5% chance of defaulting, so he goes into the 5% group, and so on. Let us say that once the sorting is done, one hundred people are put into the 10% default rate group.

Now let us look at the one hundred borrowers who have a 10% chance of defaulting. We expect ten of these one hundred people to default. Obviously, we do not know which ten.² Thus, if the lender wants to get his money back at the end of the year, he has to charge everyone in the group an 11.1% interest rate, solely for the default risk. To see why the numbers work, notice that at the beginning of the year the lender paid out \$10,000 (100 x \$100). At the end of the year, after the ten borrowers defaulted, he got back \$10,000 (90 x \$100 x 1.111). Therefore, the lender broke even on the loan.

Of course, the lender will not be happy breaking even. He wants to be compensated for the lost use of the money – the time value of money. For example, say he wants 5% for the use of the money, i.e., he wants \$10,500 at the end of the year. Then he should

¹ The United States generally borrows money by issuing bonds. For interest rates on United States bonds, see e.g. Bloomberg.com, *Government Bonds*, <http://www.bloomberg.com/markets/rates/> (accessed Feb. 4, 2009).

² If he knew which ten, the lender would not lend to those people.

charge each borrower 16.67% (1.05×1.111). To see that the math works, notice how this gets him \$10,500 at the end of the year ($90 \times 100 \times 1.1667$).

In contrast, let us look at the 0% default rate group. In that group, none of the borrowers are expected to default at the end of the year. Say this group also has one hundred people in it. Here, the lender can get his required \$10,500 at the end of the year by only charging 5%.³ Solely due to their poorer credit rating, the first group of borrowers is charged 16.67% instead of 5%.

B. A Letter of Credit Can Reduce Borrowing Costs

Now let us introduce a letter of credit. We will get into the legal characteristics of letters of credit later, but for now, assume that a letter of credit is a promise by the bank to pay the lender if the borrower does not. So the one hundred credit-poor borrowers go to the bank and get a letter of credit. At the end of the year, ninety borrowers will pay the lender back on their own. Ten of the borrowers will default, and their debt will be paid by the bank. Assuming the bank has a zero default rate, then in the eyes of the lender, this group has no default risk. The lender is certain to be paid. Thus, the lender now only has to charge them a 5% interest rate to get his required \$10,500 at the end of the year. To see that the math works, notice that the lender will get \$9,450 from the ninety borrowers who paid off their debt ($90 \times \$100 \times 1.05$). The lender will also get \$1,050 from the bank ($10 \times \100×1.05), which is filling in for the ten borrowers who defaulted. Therefore, the \$9,450 plus \$1,050 equals the required \$10,500.

Now let us see how the borrowers fared. Previously, they had to pay a 16.67% interest rate.⁴ Now the group only has to pay a 5% interest

³ If all one hundred borrowers pay back their debt, then at the end of the year the lender will have $\$100 \times 100 \times 1.05$ or \$10,500.

A note on risk premiums: If the lender is risk averse, then he will actually charge this group a slightly lower interest rate. In other words, the 10% default rate group will be charged a risk premium. The calculations in this paper will not factor in a risk premium, because it would only complicate the numbers without affecting the results. Note that if there is a risk premium, then it would be another reason to use letters of credit. Banks, by pooling risks into a large and diversified loan portfolio, lower their risk exposure, and so require a lower risk premium than would a lender who only makes one loan. Since they require a lower risk premium, transferring default risk to the bank would lower borrowing costs.

Finally, please note that the existence of the risk premium is not uncontroversial. See Mimi Lord, *Is Equity Risk Premium Still Thriving, or a Thing of the Past?*, 15 J. Fin. Plan. 62 (Apr. 2002) (transcript of debate between Roger G. Ibbotson and Robert D. Arnott on the existence of the risk premium); Robert D. Arnott & Peter L. Bernstein, *What Risk Premium Is "Normal"?*, 58 Fin. Analysts J. 64, 64 (Mar.-Apr. 2002).

⁴ Actually, only ninety of them had to pay this interest rate. The other ten paid nothing. You may wonder why the analysis combines the ninety who paid with the ten who did not. The outcomes are different for these two groups. Why not do the analysis separately for the ninety who pay back the loan? The reason is that when taking out the loan, you cannot tell if you will be one of the ninety who pay it back, or one of the ten who default. Thus, the rational thing for you to do is to see what strategy favors

rate. They also need to pay a fee to the bank for the letter of credit. The bank is not going to give a letter of credit for free. Notice that the only way for the bank to break even is to charge a sufficient amount of money in order to have \$1,050 at the end of the year.⁵ Although the letter of credit reduced the interest rate benefiting the borrowers, it completely negated that benefit through its fee. Instead of paying \$1,050 in the form of a higher interest rate, the borrowers now pay it in the form of a letter of credit fee. The group as a whole still pays \$10,500 for this loan. They will pay \$1,050 to the bank for the letter of credit, and the ninety borrowers who pay off their loan will pay \$9,450 to the lender.

What was the point of the letter of credit then? It did not reduce the group's borrowing costs. Instead of paying \$10,500 to the lender, they pay \$10,500 to a combination of the lender and the bank. In fact, the bank is going to desire a profit and will likely charge more than \$1,050 for the letter of credit. If that is the case, using a letter of credit increases borrowing costs. So why would any borrower ever use a letter of credit? Although I am tempted to change the heading to "letters of credit *do not* reduce borrowing costs" and end the paper here,⁶ the fact that borrowers use letters of credit in the aforementioned manner to support hundreds of billions of dollars⁷ of debt, makes it clear that the previous analysis is missing something.⁸

C. Summary of Paper

Now that we have the background, we shall move on to the subject of this paper. The first part of the paper explains how a letter of credit actually does reduce borrowing costs. The paper will show that in the aforementioned example the total borrowing costs with a letter of credit will be less than borrowing costs without a letter of credit.

The paper then moves on to a discussion of bond insurance. Bond

your group overall and follow that strategy individually. This assumes good faith on the borrower. In other words, it assumes no individual enters into a loan knowing in advance that they will default.

⁵ The bank can charge each of the one hundred borrowers \$10 for a total of \$1,000 and invest that at 5%. This will yield the bank \$1,050 at the end of the year.

⁶ It's a sunny eighty-four degrees in Los Angeles today, and it is the last weekend of spring break. Weather Underground, *History For Burbank, CA*, <http://www.wunderground.com/history/airport/KBUR/2008/3/22/DailyHistory.html> (Mar. 22, 2008); Loyola Law School, *Office of the Registrar, Spring 2008 Registration Materials, Academic Calendar*, <http://reg.lls.edu/documents/2008SpringAcademicCalendar.pdf> (accessed Feb. 16, 2009).

⁷ For example, in 1998 there were \$450 billion of outstanding standby letters of credit. See James E. Byrne, *New Rules for Standby Letters of Credit: The International Standby Practices/ISP98*, 100 Bus. Credit 32, 32 (May 1998).

⁸ In addition to market demand, empirical studies have demonstrated that letters of credit do reduce borrowing costs. E.g. Joo-hyun Kim & Roger D. Stover, *The Role of Bank Letters of Credit in Corporate Tax-Exempt Financing*, 16 Fin. Mgt. 31, 37 (Spring 1987) ("The results presented here are consistent with this argument in that the benefits of the letter of credit in terms of interest cost reduction are positive.").

insurance is a relatively new⁹ product sold by insurance companies. It is marketed as the equivalent of a letter of credit,¹⁰ and over the past thirty years has taken tremendous market share from letters of credit. In certain segments it has nearly driven letters of credit out of the market.¹¹ The second half of this paper explores why bond insurance is so popular. The paper then discusses why, despite the marketing, bond insurance is legally *not* the equivalent of a letter of credit, and explores some of the possibly underappreciated risks of bond insurance.

Addendum: Between the time this paper was written, in the summer of 2008, and its publication, a number of extraordinary events occurred in the financial world. These events will be mentioned in addenda where relevant.

II. HOW LETTERS OF CREDIT REDUCE BORROWING COST

A. Brief History of Letters of Credit

Letters of credit have been offered by commercial banks for hundreds of years, dating back to the period prior to the Renaissance.¹² Every letter of credit ensures a promised payment. In each letter of credit there are three parties: the account party, the beneficiary, and the bank or issuer. The account party¹³ is the party promising a payment to the beneficiary, and that payment is guaranteed by the bank's letter of credit. So whenever you look at a letter of credit transaction, you should identify three parties:

1. The party being promised a payment (beneficiary or lender),
2. The party who promised that payment (account party or borrower), and

⁹ American Municipal Bond Assurance Corporation (Ambac) is one of the oldest bond insurance companies. It was founded in 1971. Ambac, *About us*, "History," <http://www.Ambac.com/aboutus.html> (accessed Feb. 4, 2009)

¹⁰ See e.g. *id.* at "Careers At Ambac" ("The Ambac Assurance financial guarantee is an unconditional and irrevocable pledge that investors will receive principal and interest payments in full and on time should the issuer of an Ambac-insured security default.")

¹¹ Dennis Coleman & Nikolai J. Sklaroff, Seminar, *Approaches to Credit and Credit Enhancement* 35 (San Diego, Cal., Mar. 22, 2007) (available at http://www.treasurer.ca.gov/Cdiac/seminars/slides/20070323/coleman_sklaroff.pdf).

¹² One popular version was the traveler's or circular letters of credit, which functioned like a credit card. It was used by travelers who did not want to walk around with bags of money or gold. The traveler would acquire a letter of credit from a bank in his home city. He would then take this and present it to banks in the cities to which he travelled. These banks would honor it, because they were aware of the reputation of his home city's bank. Every time he drew on the letter of credit, the bank would make a note on the back of the letter to document a reduction in the available credit. For detailed images of these ornate documents, as they were used in the 1800s, see Kent McKeever & Boriana Ditchcheva, *The Circular Letter of Credit*, <http://library.law.columbia.edu/CircularLetterOfCredit/> (last updated Oct. 2006).

¹³ The account party is traditionally called that because they had an account at the issuing bank.

3. The bank (issuer or guarantor), which is guaranteeing the account party's promise.

Historically, the most popular form of letter of credit was the commercial letter of credit. In this situation the beneficiary is the seller of goods, which are purchased by the account party. The letter of credit is used to support the buyer's promise to pay the seller for the goods. This can be important in situations where the seller does not want to ship, or even create, the goods without assurance that the buyer will pay for them. Although outside the scope of this paper, there are a number of benefits to using a commercial letter of credit,¹⁴ which led to its popularity in trade.

One of the most important aspects of letters of credit is their legal enforceability. Letter of credit law comes first from the courts which distinguished¹⁵ it from traditional contracts and gave it a strong degree of enforceability. In addition to court created common law, states created letter of credit statutes by incorporating Uniform Commercial Code Article 5.¹⁶ Finally, free to include whatever rules they want in their contracts, parties often incorporate¹⁷ the rules from ISP 98¹⁸ and UCP 600.¹⁹

Through centuries of use and its strong enforceability, the letter of credit gained a reputation as a quick and reliable way to guaranty a promised payment for goods. This made letters of credit an ideal way to guaranty other promised payments, such as payments on a loan.²⁰

B. A Letter of Credit Can Reduce Underwriting Costs

1. How it Works

In the introductory example, I indicated that 10% of the borrowers

¹⁴ For example, they protect against the risk that the buyer will change his mind after the seller has produced and shipped the goods; they protect against the risk that the buyer will not have money to pay for the goods; and if a confirming bank is used, they protect against the risk that, due to a political event, the buyer may be unable to pay the seller.

¹⁵ *Whinnery v. Bank of Onalaska*, 106 B.R. 983, 987 n.1 (Bankr. W.D. Wis. 1989) ("Letters of credit are neither contracts nor negotiable instruments. A letter of credit is not a guaranty contract because the obligation of an issuer is primary and the obligation of an issuer arises upon presentment of documents in compliance with the letter of credit. The obligation of a guarantor is secondary and arises upon the principal debtor's default. A letter of credit is not a third party beneficiary contract because the claim of a beneficiary is not subject to the defenses the issuer might have against the customer on the contract for the letter of credit. A letter of credit is not a negotiable instrument because it is not payable to order or bearer, and it is typically conditional. A letter of credit is a letter of credit.") (citing James J. White & Robert S. Summers, *Handbook of the Law Under the Uniform Commercial Code* § 18-2, 711-15 (2d ed., West 1980)).

¹⁶ U.C.C. § 5-101 (2008).

¹⁷ Gerald T. McLaughlin & Paul Turner, *Introduction to Letters of Credit – An Overview for the International Commercial Lawyer*, 10 Cal. Intl. Pract. 24, 28-30 (2000).

¹⁸ International Chamber of Commerce, *International Standby Practices* Publication No. 590 (1998).

¹⁹ International Chamber of Commerce, *Uniform Customs and Practice for Documentary Credits* Publication No. 600 (2006).

²⁰ Robert D. Aicher, Deborah L. Cotton & TK Khan, *Credit Enhancement: Letters of Credit, Guaranties, Insurance and Swaps (The Clash Of Cultures)*, 59 Bus. Law. 897, 902 (2004).

would default. The problem is that in the real world a lender cannot get this information so easily. To get this information, the lender needs to investigate the borrower's financial history. This can include the history of his income, debt, expenses, stability, and a number of other factors. The lender then needs to analyze this information. All of this requires expense.

Let us factor this into the introductory example. Say the information gathering and analysis will cost the lender \$5 per borrower, or \$500 for all one hundred borrowers. To keep it simple, assume this \$500 expense is an end of year payment. Now the lender needs to not only charge 16.67% interest, but also additional interest to cover this \$500 expense. So now the lender needs to charge 22.2% interest. To review the math, notice that once the ten borrowers default, and the ninety other borrowers pay 22.2% interest, the lender will get \$11,000 at the end of the year ($90 \times 1.222 \times \$100 = \$11,000$). Underwriting costs increased the interest rate from 16.67% to 22.2%. To express borrowing costs as a dollar amount rather than an interest rate, borrowing costs grew from \$10,500 to \$11,000.

Now let us add a letter of credit. The financial information which the lender requires²¹ is something the bank already has.²² Every borrower, whether an individual or business, typically has a close and long-lasting relationship with a bank. The bank knows more about their finances than anyone. The bank knows how much income they get, where they get it from, and how long they have gotten it. The bank also knows their expenses. The bank knows who they pay, when they pay, how much they pay, and what they pay for. Every notable client of a bank is serviced by a relationship manager, who maintains an intimate connection with their financial operations. In summary, the bank is not going to have to incur much, if any, expense to learn that a borrower has a 10% chance of defaulting.

In the original example the bank charged \$1,050²³ for the letter of credit. Say they have to increase this by \$1 per person for the underwriting costs, for a new fee of \$1,150. The total borrowing cost with a letter of credit is now \$10,600. So by using a letter of credit, the underwriting costs were reduced by \$400, reducing their borrowing cost from \$11,000 to \$10,600.

²¹ *Id.* at n. 21 ("A bank that has had a lending relationship with the applicant/debtor for many years will typically hold deposit accounts of the applicant and otherwise understand its business better than investors in its unenhanced bonds.").

²² Avery Wiener Katz, *An Economic Analysis of the Guaranty Contract*, 66 U. Chi. L. Rev. 47, 72 (1999) ("Commercial banks will have a comparative advantage in monitoring their existing credit customers, as their prior relationships with such customers allow them to obtain and evaluate relevant information at low cost.").

²³ The bank actually charged each of the one hundred borrowers \$10 at the beginning of the year. I am using the end-of-year value (assuming the bank invests at the risk free rate of 5%) to maintain an apples-to-apples comparison.

At this point, you may be wondering why the bank does not just make the loan itself. The answer, stated simplistically, is that banks do not have all the money in the world. Many other parties have funds, which they would like to lend. In economic terms, the lender has lower liquidity cost than does the bank.²⁴

A study confirmed that the less a lender knows about a borrower, the more likely it is that a standby letter of credit will be used to ensure repayment. By studying new bond issues, the authors learned that underwriters used significantly more standby letters of credits to ensure payment when the borrower had not previously issued bonds. The idea is that there was less public information available on borrowers who had never issued bonds, and thus, it made the bank's knowledge more worthwhile. A letter of credit was a way to tap into the bank's knowledge.²⁵

2. The Certification Effect

In a more general sense, the benefit described above is called the certification effect. The idea is that if you are planning to invest in an entity, and you do not have complete information about the entity,²⁶ then you would benefit from a bank's stamp of approval of that entity.²⁷ This certification does not necessarily have to come by way of a letter of credit, but can also be demonstrated by the bank's willingness to give that entity a loan.

There is a broad range of economic analysis studying the existence and value of the certification effect.²⁸ Studies have found that financial markets respond positively when an entity announces new financing from a bank,²⁹ and this positive response is stronger for smaller firms³⁰ and more financially opaque firms.³¹ One study demonstrated a decertification effect. The study showed that when a bank sells off a borrower's loans, that

²⁴ Katz, *supra* n. 22, at 51 (“[C]ost of liquidity--that is, the transaction costs she must pay to convert her assets into an acceptable means of ready payment . . .”).

²⁵ Anthony Saunders & Roger D. Stover, *Commercial Bank Underwriting of Credit-Enhanced Bonds: Are There Benefits to the Issuer?* 1, 11 (Working Paper, Social Science Research Network, July 23, 2001) (available at <http://ssrn.com/abstract=280809>).

²⁶ This is always the case. This element is included only for theoretical accuracy.

²⁷ Roger D. Stover, *Third-Party Certification in New Issues of Corporate Tax-Exempt Bonds: Standby Letter of Credit and Bond Rating Interaction*, 25 *Fin. Mgt.* 62, 62 (Mar. 1996) (“The question of third-party certification arises whenever the possibility of asymmetric information exists between corporate insiders and the investing public.”).

²⁸ See generally Dario Focarelli, Alberto F. Pozzolo & Luca Casolaro, *The Pricing Effect of Certification on Syndicated Loans* 55 *J. Monetary Econ.* 335, 336-44 (2008).

²⁹ E.g. Scott L. Lummer & John J. McConnell, *Further Evidence on Bank Lending Process and Capita-Market Response to Bank Loan Agreements*, 25 *J. Fin. Econ.* 99, 100 (Nov. 1989).

³⁰ See Allen N. Berger & Gregory F. Udell, *Small Business and Debt Finance*, in *Handbook of Entrepreneurship Research* 299, 299 (Intl. Handbook Series Vol. 1, Zoltan J. Acs & David B. Audretsch eds., Kluwer Academic Publishers 2003).

³¹ Ronald Best & Hang Zhang, *Alternative Information Sources and the Information Content of Bank Loans*, 48 *J. Fin.* 1507, 1508 (1993).

borrower will suffer a strongly negative impact on their stock return.³²

Further evidence is gained by looking at syndicated loans. In loan syndication, multiple banks team up to make a loan. Each bank in the syndicate lends a part of the loan. They are set up by a lead bank, known as the arranger, who commits to make the loan. The arranger then finds other banks to take pieces of the loan. A study found that in syndicated loans, the interest rate goes down if the arranger keeps more of the loan. The idea is that by keeping a larger portion of the loan, the arranger is certifying the creditworthiness of the borrower, and the loan is deserving of a lower interest rate.³³ As would be expected, the certification is perceived as credible only to the extent the bank puts its own money on the line³⁴ and only to the extent the bank is financially healthy.³⁵

Finally, DeGryse and Ongenga studied 15,000 loans in a Belgian bank to learn that banks provide greater certification for customers who are geographically closer. The lesson from this may be to get a letter of credit from the bank that is closest to you!³⁶

C. A Letter of Credit Can Reduce Monitoring Costs

1. How it Works

By monitoring your debtor, you can reduce the likelihood of default.³⁷ To give a simple example, imagine that your roommate asks to borrow \$20,000 to start a weekend lawn mowing business. Based on his past behavior, you trust him and think this is a good investment, so you lend him the money. Your ability to monitor and influence his actions reduces the likelihood that he will default on the loan. For example, say one day you catch him browsing a catalogue for fine watches. He thinks he can afford this luxury now that he has a business. You then go into the living room to find a new video game system. He tells you that he purchased it yesterday and has been playing it all day. Seeing how his behavior could impair the profitability of the business, you speak with him. You remind him of unexpected business expenses, like his old truck breaking down. You also remind him that the video game system may take up a lot of his time,

³² Sandeep Dahiya, Manju Puri & Anthony Saunders, *Bank Borrowers and Loan Sales: New Evidence on the Uniqueness of Bank Loans*, 76 J. Bus. 563, 563 (2003).

³³ Focarelli, *supra* n. 28, at 19-20.

³⁴ Hayne E. Leland & David H. Pyle, *Informational Asymmetries, Financial Structure, and Financial Intermediation*, 32 J. Fin. 371, 383-84 (1977).

³⁵ See generally Myron B. Slovin, Marie E. Sushka & John A. Polonchek, *The Value of Bank Durability: Borrowers as the Bank Stakeholders*, 48 J. Fin. 247 (1993).

³⁶ See generally Hans Degryse & Steven Ongena, *Distance, Lending Relationships, and Competition*, 60 J. Fin. 231 (2005).

³⁷ Katz, *supra* n. 22, at 70 ("In short, guaranties are profitable when the guarantor holds a sufficiently great comparative advantage in . . . supervising . . . the debtor in the event of default--in other words, when the guarantor is the least-cost monitor.")

impairing his dream of building a successful landscaping business. He realizes his mistake, does not order the watch, returns the video game system, focuses on his business, becomes successful, and returns a respectable dividend for your investment.

To see how the numbers work, let us go back to the introductory example. After doing the underwriting analysis, we learned that 10% of the group was going to default. This number was based on their past financial behavior. The problem is that you cannot be sure that their future behavior will conform to their past behavior. Once the business gets the riches of the loan, they may lose their focus or discipline. No longer shackled by a lack of funds, they may spend wastefully and carelessly. In the worst-case scenario, they may slowly move the money to an offshore account and run off to an island somewhere. To help ensure that the borrowers' future behavior conforms to their prior behavior, the lender needs to monitor them.³⁸

Therefore, the lender is going to need to pay someone to monitor the borrowers.³⁹ Suppose an effective monitor costs \$10 per person, for a total of \$1,000 payable at the end of the year. The lender will have to pass this cost onto the borrowers, whose total borrowing cost will now be \$11,500 (the \$10,500 calculated in the introduction plus \$1,000 for monitoring costs).

Now let us look at the costs with a letter of credit. Due to its relationship with the borrower, the bank does not need to incur much additional expense to monitor him.⁴⁰ Assume the bank charges \$2 per

³⁸ At this point you may ask: Why monitor? Instead, why not just estimate the number of borrowers who will default if you do not monitor, and calculate a new interest rate using that default rate? If the lender did this, he would no longer be competitive. If given the choice, borrowers will borrow from a lender with good monitoring ability. This is analogous to the idea that you would not shop at a store where they have rampant shoplifting and raise their prices to compensate for the shoplifting. You could get lower prices by going to a store where they don't have shoplifting. To give a numerical example, let's say ten additional borrowers will default if not monitored. By charging an interest rate of 31.25%, the lender can still recoup his required \$10,500 at the end of the year ($80 \times \$100 \times 1.3125 = \$10,500$). However, if the lender pays \$1,000 for monitoring, then only ten people will default, and the lender only has to charge an interest rate of 27.8% ($90 \times \$100 \times 1.278 = \$11,500$, minus the \$1,000 for monitoring = \$10,500). The lender needs to charge the lowest interest rate possible to be competitive. As long as the monitoring costs are low enough the lender can reduce the interest rate by hiring a monitor. At what point does the monitoring cost become so high that it no longer reduces the interest rate? Not coincidentally, the answer is \$1,312.50 ($1.3125 \times 10 \times \100). Remember that 31.25% was the interest rate required if 20 borrowers defaulted. I'll leave it as an exercise for the reader to explain why.

³⁹ We assume the monitor keeps the borrower from having a default rate higher than 10%. The analysis would lead to the same conclusion if you posited that the monitor lowers the borrower's default rate to 5%.

⁴⁰ *But see* Bao Anh Thai, *The Passive Monitoring Role Of The Indenture Trustee And The Developer's Misbehavior Risk For Financial Standby Issuing Bank In Projects Funded By Municipal Bonds*, 1, 14 <http://www.baolawfirm.com.vn/dmdocuments/Financial%20standby%20in%20development%20projects%20funded%20by%20municipal%20bonds.pdf> (Sept. 24, 2006) ("[A]s provided by the law on letter of credit, [the bank] cannot rely on monitoring activities to minimize the risks.").

person, or \$200 in end-of-year dollars for monitoring. So the bank will have to increase the cost of the letter of credit by \$200, and it will now cost \$1,250 (\$1,050 calculated previously plus \$200 for the monitoring services). The total borrowing cost is \$10,700. Consequently, the letter of credit reduced monitoring costs by \$800 and reduced borrowing costs from \$11,500 to \$10,700.

2. Why the Bank is a More Capable Monitor

As with underwriting, the bank is in a great position to monitor the debtor. I think my bank knows more about my day-to-day activities than almost anyone else. The bank knows where I am, what I am doing, and most importantly, how much I make and spend. It would know of my financial difficulties or improper spending before any other party. Obviously, the bank is not going to carefully monitor me, but it would make sense to carefully monitor a large client in which it has invested sizeable

Mr. Thai did not give any authority for his conclusion, but I think he is talking about the “documents only” rule. The “documents only” rule will be discussed later, but essentially it means that a bank must condition payment solely on the presentation of the required documents. The bank cannot look at non-documentary events. So a bank can refuse to pay on a letter of credit, if a required document was not presented. However, it cannot refuse to pay because a certain project was not completed. The latter is a non-documentary event. When deciding whether to pay, the bank can look only at pieces of paper, and it can only look to see whether those pieces of paper have the required characteristics.

Mr. Thai’s conclusion seems to be in error. Although the bank cannot base their decision to pay on non-documentary events, there is nothing prohibiting them from monitoring non-documentary events. At worst, doing so creates the following risk: Should the bank not honor the letter of credit, the beneficiary could allege that this dishonor was based not on a review of documents; but rather, a review of non-documentary events. Despite this possibility, I did not find any case where a beneficiary was successful with this argument. This makes sense, as the conformity of the documents is controlling. If the required documents are provided (and there is no forgery or other egregious fraud) then the bank must pay, regardless of what it learned in monitoring. If the required documents are not provided, then the bank can deny payment for that reason alone, even if its underlying motivation is something learned in monitoring. This is known as the independence principle in letter of credit law, and will be discussed *infra* sec. III.C.3.1).b).

For example, in *Bombay Industries v. Bank of New York*, the bank denied payment because one of the documents (the bill of lading) said “[shipment from] New York,” when it was supposed to say “Shipment from New Jersey Port.” 1995 WL 808811 (N.Y. Sup. 1995), *rev’d*, 649 N.Y.S.2d 784 (N.Y.App.Div. 1996), *remanded to* Case No. 103064, 1997 WL 860671 (N.Y. Sup. 1997). *Bombay Industries* alleged that the real reason for denying payment, was that the bank knew the account party was in financial difficulty, and so the bank wouldn’t be reimbursed for the payment. *Id.* The trial court erroneously agreed with *Bombay Industries*. *Id.* The appeals court however corrected the trial court, noting that the bank has a right to demand strictly complying documents. *Id.* The case was sent back to the trial court, where it again ruled in *Bombay’s* favor, and this time for good reason. *Id.* The bank had taken longer than the allowed seven days to reject the non-complying documents, and so had waived its right to reject the documents. *Id.*

One commentator argues that it is unfair to allow banks to deny payment solely for a minor defect in the documents. Margaret L. Moses, *Letters of Credit and the Insolvent Applicant: A Recipe for Bad Faith Dishonor*, 57 Ala. L. Rev. 31, 48 (2005). However, it is hard to be sympathetic with a party who is denied payment because they failed to provide a conforming document. All that was required of them was to get a document they agreed to get when entering into the letter of credit. It seems unfair to change letter of credit law simply because they failed to get that document, or worse, as in *Bombay Industries*, because their agent carelessly wrote the wrong thing on a document. It would be analogous to holding a bank liable because it did not wish to cash an erroneously drafted check. It also creates a catch-22 for the bank. If the bank pays on bad documents, it will be sued by the account party for wrongful payment. If it does not pay on bad documents, the beneficiary will sue the bank for wrongful non-payment.

loans or letters of credit.

One recent example of bank monitoring comes from Elliot Spitzer's tribulation. Elliot Spitzer was a superstar politician on a meteoric rise. In 2006, he was elected governor of New York State, having just completed a legendary stint as the New York Attorney General. Once elected governor, the bank was required to monitor and report his transactions per an anti-corruption law. The bank did so, and reported certain odd transfers to the authorities. Eventually the Federal Bureau of Investigations tapped into his phone communications, learned that these payments were being used for prostitutes, and Mr. Spitzer has since resigned.⁴¹ This secret, which Mr. Spitzer had kept for some time, was discovered by doing nothing more than following his transactions.

In addition to monitoring, the bank is able to influence the borrower. As Avery Weiner Katz describes,⁴² a bank has sufficient influence to change a borrower's behavior. The bank can call in, refuse to renew, or exercise covenants on other loans. The bank can point out liens it has on the debtor's property and remind them of the ugly foreclosures and hassles which await them if they do not pay their debts. The bank can sharpen this leverage by pointing to floating liens, ones which take an interest in property the debtor acquires in the future.⁴³ One author suggests that the main purpose of liens is to gain influence over the borrower's behavior.⁴⁴ Such liens also lock the borrower into the relationship. If the borrower wants to borrow from any other party, it will need to give that new lender a lien on its property. Since the bank already has a lien on the borrower's property, no additional liens can be incurred without the bank's permission. A bank can also gain control over a borrowing entity by securing its loans with an insider's assets. This gives the bank leverage over those insiders,⁴⁵ and thus, over the entity. Mr. Katz also suggests that the bank's most powerful leverage over the borrower is as a credit reference. An unfavorable credit reference from your bank carries great weight in future business relationships, especially future lending relationships.⁴⁶

⁴¹ Danny Hakim & William K. Rashbaum, *The New York Times*, N.Y./Region, *Spitzer Is Linked to Prostitution Ring*, <http://www.nytimes.com/2008/03/10/nyregion/10cnd-spitzer.html?hp> (Mar. 10, 2008); William K. Rashbaum, *Revelations About Governor Began in Routine Tax Inquiry*, 157 N.Y. Times A1 (March 11, 2008); Michael M. Grynbaum, *The New York Times*, N.Y./Region, *Spitzer Resigns, Citing Personal Failings*, <http://www.nytimes.com/2008/03/12/nyregion/12cnd-resign.html> (Mar. 12, 2008).

⁴² Katz, *supra* n. 22, at 72.

⁴³ U.C.C. § 9-204(a) ("Except as otherwise provided in subsection (b), a security agreement may create or provide for a security interest in after-acquired collateral.")

⁴⁴ Ronald J. Mann, *The Role of Secured Credit in Small-Business Lending*, 86 Geo. L.J. 1, 25-26 (1997).

⁴⁵ E.g. *Levit v. Ingersoll Rand Fin. Corp.*, 874 F.2d 1186, 1195 (7th Cir. 1989).

⁴⁶ For the importance of reputational sanctions, see e.g. David Charny, *Nonlegal Sanctions in Commercial Relationships*, 104 Harv. L. Rev. 373, 408-26 (1990); Lisa Bernstein, *Opting Out of the Legal System: Extralegal Contractual Relations in the Diamond Industry*, 21 J. Leg. Stud. 115, 138-43 (1992).

D. A Letter of Credit Can Reduce Collection Costs

1. How it Works

In our original example, we assumed the ninety borrowers who did not default paid without any resistance. In fact, this is not realistic. In the real world, some of the borrowers will not pay without extensive collection activities.

Let us say ten of these ninety borrowers will require collection efforts. The lender will have to incur expense to collect from them.⁴⁷ Assume the lender hires a collection agency that charges \$25 per person payable at the end of the year. So the collection agency will charge \$250 in total. The lender has to pass this cost along to the borrowers, whose borrowing costs are now \$10,750 (\$10,500 from the original example, plus \$250 to pay the collection agency).

Now let us use a letter of credit. First, let me introduce another aspect of letters of credit. Generally, when a letter of credit is set up, the bank enters into a separate contract with the borrower. This contract states that if the bank pays on the letter of credit, then the bank can collect that money from the borrower.⁴⁸ It does not mean that the bank will recover from the borrower. If the borrower has no way of paying, then there is nothing the bank can do.⁴⁹ However, the contract gives the bank a legal right to recover from the borrower.

Returning to the example, with a letter of credit twenty of the borrowers default, and the bank will pay in their place. However, the bank will also attempt to collect from these borrowers, and it will be successful in collecting from ten of them.

Say that because of the bank's enhanced collection ability, it only incurs \$10 of expense to collect from the ten resisting borrowers. So at the end of the year, 80 of the borrowers will pay the lender \$8,400 ($80 \times 10 \times 100 \times 1.05 = \$8,400$). Ten of the borrowers will default, and it will be impossible to collect from them. The bank will pay the lender \$1,050 for these ten borrowers ($10 \times 100 \times 1.05 = \$1,050$). Ten of the borrowers will default, but the bank will be able to collect from them by incurring a \$10 per person collection fee. For these people, the bank will pay the lender \$1,050

⁴⁷ Similar to what was described *supra* note 39, the lender could simply re-price the loan assuming twenty defaults and not bother with collection efforts. For the same reasons, however, he will expend collection efforts to maintain a competitive interest rate.

⁴⁸ The U.C.C. also provides such a provision. U.C.C. § 5-108(i)(1) ("An issuer that has honored a presentation as permitted or required by this article . . . is entitled to be reimbursed by the applicant in immediately available funds not later than the date of its payment of funds . . .").

⁴⁹ It should be noted that as a result of the independence principle, which will be discussed later, the bank must honor the letter of credit regardless of whether it could recover from the borrower.

(10 x 100 x 1.05); the bank will then pay \$100⁵⁰ in collection costs to recoup \$1,050 from these ten resisting borrowers. Thus, at the end of the day the bank's total expense will be \$1,150 (\$1,050 + \$1,050 + \$100 - \$1,050). Accordingly, the bank will need to charge \$1,150 for the letter of credit. The group's total borrowing costs will be \$10,600 (\$8,400 paid by the borrowers who did not default; \$1,050 paid by the borrowers who resisted, but ultimately paid the bank; and \$1,150 for the letter of credit). Due to the bank's enhanced collection ability, the collection fees were reduced by \$150, and the total borrowing cost was reduced from \$10,750 to \$10,600.

2. Why Banks Are Capable Collectors

Debt collection is a multi-step process.⁵¹ It requires careful negotiations, judgment, and interpersonal skills. There are a number of regulatory rules with which the collector must comply.⁵² Further, if the collector decides to proceed against an asset, each type of asset has its own process. For example, a mortgage lender may know how to foreclose on houses but may not know how to repossess an automobile.⁵³ Banks, because of their long history in collections and their ability to proceed against different types of assets, have the expertise to efficiently collect from defaulting borrowers.

Large banks are especially competent debt collectors. They have standardized procedures, which they use to prepare for debt collection. Even when the matter is so large that the bank has to refer it to outside counsel, their litigation management expertise gives them an advantage.⁵⁴ This is unlike an ordinary creditor, who often does not know how to monitor the activities of its counsel, sometimes resulting in exorbitant legal costs.⁵⁵

A real world example comes from my discussion with bankruptcy expert Dan Schechter⁵⁶. When a borrower goes into bankruptcy, they can deny lenders recovery by filing a preference claim. To recover from the borrower, the lender must defend against this claim. Prior to the amendment of 11 U.S.C. § 547(c)(2) in 2005, it was fairly tricky to establish the three-

⁵⁰ \$10 per person collection fee multiplied by ten.

⁵¹ 12 Am. Jur. *Trials Collection Practice* §§ 1-48 (1966) (providing a complete overview of the debt collection process).

⁵² E.g. The Fair Debt Collection Practices Act §§ 801-819, 15 U.S.C. §§ 1601, 1692-1692p (2006).

⁵³ Katz, *supra* n. 22, at 84.

⁵⁴ Interview with Dan S. Schechter, Professor of Law, Loyola Law School in Los Angeles, CA (March 27, 2008).

⁵⁵ *Id.*

⁵⁶ *Id.* Mr. Schechter has over thirty years of experience in the bankruptcy field. He has served on numerous legislative committees, has drafted California state legislation, and has advised the United States Congress on federal legislation. He is the author of *Commercial Finance Newsletter*, a weekly column published by Westlaw, and regularly provides continuing legal education programs on current developments in commercial finance and insolvency. Loyola Law School, Faculty, Dan S. Schechter, <http://www.lls.edu/academics/faculty/schechter.html> (accessed Feb. 16, 2009).

part "ordinary course of business" defense to a preference claim. In one case, both a bank and a non-bank were targeted with this claim. The bank knew exactly how to meet the bankruptcy judge's evidentiary standards, and it had an in-house employee who was designated as the custodian of records to establish the foundation for the bank's defense. The unsecured creditor was not so well prepared. The bank prevailed and recovered from the borrower. The unsecured creditor did not because it was a novice in this arena.

E. Other Reasons

1. Banks May Provide a Subsidy to Satisfy the Community Reinvestment Act

The Community Reinvestment Act ("CRA")⁵⁷ was passed in 1977 to help provide credit to low and moderate income areas.⁵⁸ It requires examinations and written evaluations, which could result in a rating of outstanding, satisfactory, needs improvement, or substantial noncompliance.⁵⁹ These examination results themselves do not lead to any government action. Rather, the CRA is enforced by making the examination results available to the public, so that borrowers know which banks have low ratings.⁶⁰ In addition, regulators must consider a bank's CRA rating when approving the granting of deposit insurance to a bank; the opening of a new branch of an existing bank;⁶¹ the merger of a bank;⁶² the application to become a financial holding company;⁶³ and a financial holding company or financial subsidiary's commencement of new activities.⁶⁴ The CRA is not a regulation that can be brushed aside.

The examination is based on three tests: the service test, the investment test, and the lending test. For large banks, the lending test is the

⁵⁷ The Community Reinvestment Act of 1977, 12 U.S.C. §§ 2901-2908 (2006).

⁵⁸ The CRA regulations define low-income individuals as those who earn less than 50% of the median income in their metropolitan area. Moderate-income individuals are defined as those with incomes between 50% and 80% of the median income in their metropolitan area. In addition to providing credit to low and middle income borrowers, the bank can qualify by providing credit to an activity located in a low or middle income area. Low and middle income areas are defined as census tracts that, as of the latest decennial census, have median family incomes of less than 80% of the median family income of the metropolitan area in which they are located. Robert E. Litan et al., *The Community Reinvestment Act After Financial Modernization: A Baseline Report n.2* <http://www.ustreas.gov/press/releases/docs/crareport.pdf> (Apr. 2000).

⁵⁹ 12 U.S.C. § 2906.

⁶⁰ Any person can walk into any bank and ask to see the public sections of the examiner's report. *Id.* at § 2906(b).

⁶¹ *Id.* at § 2902(3).

⁶² *Id.* at §§ 2902(3), 1842(d)(3).

⁶³ *Id.* at § 2903(c)(1)(A).

⁶⁴ *Id.* at §§ 24a(7), 1843(1)(2). Note that financial subsidiaries and financial holding companies can engage in activities which other bank organizational forms cannot. For example, they can engage in insurance and investment banking activities. In addition, financial holding companies can engage in merchant banking, something which financial subsidiaries cannot do.

most important and counts for 50% of the score.⁶⁵ The lending test can be passed not just by providing loans to low and middle income communities, but also by providing letters of credit to back loans made by other parties.⁶⁶ These letters of credit can be used to back all sorts of loans, including community development project⁶⁷ loans and business loans.

The question is, are these loans profitable for the bank, or are they a subsidy to low and middle-income communities? In 1993, with the country coming out of a recession,⁶⁸ Macey & Miller argued that the CRA forces banks to make unprofitable loans.⁶⁹ In 2005, in the middle of a real estate boom, Barr defended against such criticism and pointed to numerous studies which showed that low and middle-income loans were profitable.⁷⁰ Now in March of 2008, in the midst of a real estate bust and subprime mortgage lending crisis, critics are again raising their voices, arguing that the CRA was unprofitable, and caused the subprime crisis.⁷¹ Other commentators disagree, suggesting that the CRA mitigated the subprime crisis.⁷² Overall the question is undecided, but there is some evidence that the CRA may provide a subsidy to borrowers from low and middle-income communities.

Going back to the original example, let us say the one hundred borrowers are low and middle-income borrowers. Lending to them would help satisfy the CRA. So to review, at the end of the year ninety borrowers will pay off their loans. Ten borrowers will default, and the bank will pay in their place, costing the bank \$1,050. Assuming CRA-related letters of credit are subsidized, the bank will charge less than the full \$1,050 for the letter of credit. Assume the bank charges only \$900 for the letter of credit. So now the total borrowing cost decreased from the original \$10,500 to \$10,350. The bank paid \$1,050 on the letter of credit but only charged \$900 for it. So the bank took a \$150 loss to satisfy the CRA, and the borrowers get a \$150

⁶⁵ Michael S. Barr, *Credit Where It Counts: The Community Reinvestment Act and Its Critics*, 80 N.Y.U. L. Rev. 513, 525 (2005).

⁶⁶ 12 C.F.R. § 25.22(a)(2) (2008) (when the Office of Comptroller of Currency is performing the examination); *id.* at § 345.22 (when the FDIC is performing the examination); *id.* at § 228.22 (when the Federal Reserve is performing the examination). 12 U.S.C. § 2902(1) explains which agencies perform CRA examinations. It depends on the type of bank being examined.

⁶⁷ Casius Pealer, *The Use of Standby Letters of Credit In Public and Affordable Housing Projects*, 15 J. Afford. Hous. & Community Dev. L. 276, 279 (2006) ("Furthermore, banks subject to the [CRA] may actually be required to fund a certain number of projects and contractors in particular communities that otherwise would exhibit an unacceptable level of risk.")

⁶⁸ John Greenwald, *Cover Stories: Why We're So Gloomy*, 139 Time Mag. 34, 34 (Jan. 13, 1992) (referencing magazine cover titled "The Recession: How Bad Is It?").

⁶⁹ Jonathan R. Macey & Geoffrey P. Miller, *The Community Reinvestment Act: An Economic Analysis*, 79 Va. L. Rev. 291, 321 (1993) ("CRA encourages depository institutions to devote depositor funds to low-profit or losing propositions in derogation of overall economic welfare . . .").

⁷⁰ Barr, *supra* n. 65, at 580.

⁷¹ Stan Liebowitz, *The Real Scandal, How Feds Invited The Mortgage Mess*, http://www.nypost.com/seven/02052008/postopinion/opedcolumnists/the_real_scandal_243911.htm?page=0 (Feb. 5, 2008).

⁷² Marcia Kass, *Banks' CRA Participation Mitigated Crisis In Subprime Mortgages, Traiger Report Says*, 90 BNA Banking Report (2008) (available at http://www.traigerlaw.com/news/banks_cra_participation_mitigated_crisis_in_subprime_mortgages_bna_01-07-08.pdf).

offsetting gain.

2. Tax Reasons⁷³

Katz⁷⁴ and Miller⁷⁵ argue that a letter of credit provides a tax benefit because the letter of credit fee is amortized on a straight-line basis over the life of the loan. Miller claims this treats the borrower far too generously, because the fee should be amortized, not on a straight-line basis, but in a manner which increases over time as does the value of the loan.⁷⁶ Unfortunately, I was not able to verify any tax benefit to the borrowers. In fact, using a letter of credit hurts the borrower's tax position, while creating an offsetting benefit to the lender. However, I was able to identify a different tax benefit. In this section I first explain why a letter of credit hurts the borrower's tax position, then explain why a letter of credit may provide a tax benefit in other ways.

a. A Letter of Credit Hurts The Borrowers' Tax Position and Improves the Lenders' Tax Position

To see the tax effect, we need to look at a multi-year loan. Therefore, let us assume that one hundred borrowers want to borrow \$100, to be paid back in five years. The borrower will not make any payments until the end of the five-year period. We have done the underwriting and know that 30% of them are going to default. The lender is going to require a 5% annual return and will have to charge this group 12.76% to achieve that.⁷⁷ The graph on the following page shows the lender's and the borrowing group's taxable income for the five-year period.

⁷³ Please note that the tax calculations in this paper are a superficial review of general tax principles, and do not incorporate the unique facts of a particular taxpayer's situation. Such facts could trigger exceptions to the general rule and change the result of the calculations.

⁷⁴ Katz, *supra* n. 22, at 89.

⁷⁵ David S. Miller, *Federal Income Tax Consequences of Guarantees: A Comprehensive Framework for Analysis*, 48 Tax Law. 103, 110 (1994).

⁷⁶ *Id.* at 111-12 ("It is undeniably correct that a debtor may not take an immediate deduction for a lump-sum guarantee fee in respect of a loan that extends beyond the taxable year. However, it is overly generous of the Service to permit debtors who pay lump-sum guarantee fees to amortize the fee on a straight-line basis over the life of the underlying debt obligation. The economic benefit normally derived by a debtor from a guarantee is a reduced interest rate reflecting the creditworthiness of the guarantor. Because guarantees are so closely tied to interest, straight-line amortization permits the debtor, in effect, to accelerate its deductions as compared to a constant-yield method. Instead, to more accurately reflect the economic effect of a guarantee for federal income tax purposes, the debtor should reduce the issue price of the debt instrument by the amount of the lump-sum guarantee and recover the cost of the guarantee as original issue discount (OID) expense over the term of the loan.").

⁷⁷ The lender will require \$12,763 at the end of the five year period ($100 \times \$100 \times 1.05^5 = \$12,763$). Since only seventy borrowers will pay back their loan, he has to charge 12.76% interest to achieve this ($70 \times \$100 \times 1.1276^5 = \$12,763$).

Without a Letter of Credit		
Year	Lender's taxable income (deduction)	Borrowers' taxable income (deduction)
1	\$ 1,276 ⁷⁸	\$ (1,276) ⁷⁹
2	\$ 1,439 ⁸⁰	\$ (1,439)
3	\$ 1,623	\$ (1,623)
4	\$ 1,830	\$ (1,830)
5	\$ 2,064 ⁸¹	\$ (2,064)
	\$ (5,470) ⁸²	\$ 5,470 ⁸³

Now let us see what happens when you introduce a letter of credit. The interest rate on the loan will drop to 5% because there is no longer any credit risk. The letter of credit fee is paid at the beginning of the loan. The bank will need to charge a high enough fee, such that if it invests the money at 5% a year, it will have enough to pay off the debt of the thirty defaulting borrowers. So the bank needs to charge \$3,000 for the letter of credit.⁸⁴ Below is the two parties' taxable income over the five-year period.

⁷⁸ Even though the borrower is not receiving interest income, he is required to pay taxes on the interest as it accrues. This is called "original issue discount" (OID). 26 U.S.C. § 1272 (2000). So his taxable interest income in the first year is $100 \times \$100 \times 12.76\% = \$1,276$. See 26 C.F.R. § 1.1272-1 example 1 (2008), for a calculation of OID on a similar loan.

⁷⁹ Mirroring the lender's OID interest income, the borrower can deduct this interest even though he hasn't paid any interest yet. 26 U.S.C. § 163(a). However, note there are exceptions to this rule, for example the High Yield Debt Obligation rules of 26 U.S.C.A. § 163(e)(5)(a).

⁸⁰ Here, the OID interest income is the original \$10,000 plus one year's interest, multiplied by 12.76% ($100 \times \$100 \times 1.1276 \times 12.76\% = \$1,439$).

⁸¹ $100 \times \$100 \times 1.1276^4 \times 12.76\% = \$2,064$.

⁸² When the thirty (30% of original 100) borrowers default, the lender gets a bad debt deduction. 26 U.S.C. § 166. Since thirty borrowers were expected to pay \$5,470 at this time, but did not, that will be the amount of the lender's deduction ($30 \times \$100 \times 1.1276^5 = \$5,470$).

⁸³ The thirty borrowers who defaulted get cancellation of indebtedness income. *Id.* § 61(a)(12). However, note there are exceptions to this rule, for example under 26 U.S.C.A. § 108.

⁸⁴ \$3,000 growing at 5% interest for five years equals \$3,829, which is the amount required to pay for the thirty defaulting borrows ($30 \times \$100 \times 1.05^5 = \$3,829$).

With a Letter of Credit				
Year	Lender's taxable income (deduction)	Borrowers' loan income (deduction)	Borrowers' letter of credit (fees)	Borrowers' total taxable income (deduction)
1	\$ 500 ⁸⁵	\$ (500) ⁸⁶	\$ (600) ⁸⁷	\$ (1,100)
2	\$ 525	\$ (525)	\$ (600)	\$ (1,125)
3	\$ 551	\$ (551)	\$ (600)	\$ (1,151)
4	\$ 579	\$ (579)	\$ (600)	\$ (1,179)
5	\$ 608 ⁸⁸	\$ (608)	\$ (600)	\$ (1,208)
	\$ 0	\$ 3,829 ⁸⁹	\$ 0	\$ 3,829

Now let us get a side-by-side comparison of the lender's taxable income with and without the letter of credit.

Year	Lender's taxable income (deduction) without a letter of credit	Lender's taxable income (deduction) with a letter of credit	Increase (decrease) in taxable income due to the letter of credit
1	\$ 1,276	\$ 500	\$ (776)
2	\$ 1,439	\$ 525	\$ (914)
3	\$ 1,623	\$ 551	\$ (1,072)
4	\$ 1,830	\$ 579	\$ (1,251)
5	\$ 2,064	\$ 608	\$ (1,456)
	\$ (5,470)	\$ 0	\$ 5,470
Total	\$ 2,763	\$ 2,763	\$ 0

Notice it did not affect the lender's total taxable income. Both with and without the letter of credit they received a total of \$2,763⁹⁰ of taxable income over the five-year period. However, look at the timing of that income. Without the letter of credit, they receive income upfront and get an

⁸⁵ This is calculated as in the prior chart ($100 \times \$100 \times 5\% = \500).

⁸⁶ When calculated as in the prior chart, it will mirror the lender's interest income.

⁸⁷ The borrowers deduct their letter of credit premium on a straight-line basis over the term of the loan. Miller, *supra* n. 75, at 110.

⁸⁸ The lender is being paid by the bank who pays for the thirty defaulting borrowers. To calculate taxes on this payment, you use a "look-through" rule. Under this rule, you treat these payments as if they had come from the borrowers. Miller, *supra* n. 75, at 131; 26 U.S.C. § 103.

⁸⁹ When the thirty borrowers default on their loans, the bank will pay in their place. These thirty borrowers will then be indebted to the bank. The bank will be unable to collect from them, and will write off their debt. This will give the borrowers \$3,829 ($30 \times \$100 \times 1.05^5 = \$3,829$) of cancellation of indebtedness income under 26 U.S.C. § 61(a)(12). The bank will get a \$3,829 bad debt deduction under *id.* at § 166. Again, please note there are exceptions to this rule.

⁹⁰ This makes sense because \$2,763 is five years' worth of interest on their original \$10,000 ($\$10,000 \times 1.05^5 = \$12,763$).

offsetting deduction in five years. With the letter of credit, they receive less income upfront but do not get the offsetting deduction. From a tax standpoint, the lender prefers the latter scenario.

The lender prefers the scenario with a letter of credit because it defers recognition of income. For example, say I have a choice between (a) getting \$10,000 in taxable income this year and a \$10,000 deduction next year, or (b) getting no income this year and no deductions next year. If I choose the former, I will pay \$3,500⁹¹ in taxes this year, and the government will give me a \$3,500 refund next year. If I choose the latter, I pay no taxes this year and can take the \$3,500, earn interest income on it, and get back more than \$3,500 next year. In summary, a taxpayer prefers to defer the recognition of income and accelerate the recognition of deductions.

The letter of credit, therefore, improves the lender's tax position. But, it has the opposite effect on the borrowers – it hurts their tax position. Previously the borrowers were getting very large deductions upfront, which were offset with income in the future. Now they get smaller deductions up front and less income in the future.

Year	Borrowers' taxable income (deduction) without a letter of credit	Borrowers' taxable income (deduction) with a letter of credit	Increase (decrease) due to the letter of credit
1	\$ (1,276)	\$ (1,100)	\$ 176
2	\$ (1,439)	\$ (1,125)	\$ 314
3	\$ (1,623)	\$ (1,151)	\$ 472
4	\$ (1,830)	\$ (1,179)	\$ 651
5	\$ (2,064)	\$ (1,208)	\$ 856
	\$ 5,470	\$ 3,829	\$ (1,641)
Total	\$ (2,763)	\$ (1,934)	\$ 829

The letter of credit hurt the borrowers' tax situation. Notice that the total deductions decrease from \$2,763 to \$1,934.⁹² As described in the

⁹¹ Assuming a 35% tax rate.

⁹² What happened to \$829 of the borrowers' deductions? These deductions disappeared because the borrowers paid for the letter of credit up front, rather than at the end. Remember that the letter of credit costs only \$3,000 up front. The bank will invest it at 5% for five years, resulting in \$3,829, which the bank will use to pay off the debt of the thirty defaulting borrowers (whose debt will be $\$3,829 = 30 \times \100×1.05^5). Had the borrowers paid for the letter of credit at the end, it would have cost them \$3,829 ($\$3,829 - \$3,000 = \829).

At this point, you are probably wondering why the analysis doesn't discuss the bank's taxes. Does the bank not earn income during the five years in which it invests the \$3,000? Remember that our bank makes zero profit over the five year period, and so it will not pay taxes. Of course taxes are not collected once every five years; they are collected once a year. So how do they zero out their income

footnote below, this is caused by the borrowers paying for the letter of credit up front rather than at the end of the five-year period. To prevent this nuance from obfuscating the analysis, the chart in the footnote below⁹³ shows the results, assuming the borrowers pay for the letter of credit at the end of the loan period. The results are the same – the letter of credit hurt the borrower’s tax position by accelerating income.

b. Why It Achieves This Result

To see what happened here, it is worth returning to the scenario without a letter of credit. Let us also separate the one hundred borrowers into seventy borrowers who paid off the loans and thirty who defaulted. For the seventy borrowers who paid off their loans, the IRS’s required deductions make sense. These seventy deducted interest as it accrued and ultimately paid off their loan. Now look at the thirty borrowers who defaulted. They were taking interest deductions on a loan they were never going to pay back! Granted, when they default, these thirty borrowers have to return those interest deductions by taking offsetting cancellation of indebtedness income. Still, these thirty borrowers gained a tax advantage because the loan created deductions in the early years in exchange for offsetting income in the final year, i.e., they deferred recognition of income.

c. A Letter of Credit Will Reduce The Borrowers’ And Lender’s combined tax bill

Let us summarize what happened without a letter of credit. The lender had to pay taxes on interest income from thirty defaulting borrowers even though it would never receive that interest income. These thirty defaulting borrowers deducted interest income even though they were never going to pay that interest. At the end of the loan, their situations reversed. The thirty defaulting borrowers took cancellation of indebtedness income, and the lender took an offsetting discharge of debt deduction.

during each year? Commercial banks can carry bad debt deductions back for ten years, and forward for five years. 26 U.S.C. § 172(b)(1)(D). By moving losses back and forth, they can zero out each year’s taxable income.

⁹³ Notice that when the borrowers pay for the letter of credit at the end, the total deductions are now \$2,763 both with and without the letter of credit. This is not a realistic scenario though, as banks are unlikely to allow borrowers to pay for the letter of credit at the end of the loan period.

Year	Borrowers' income (deduction) without a LOC (a)	With a letter of credit			Increase in income due to the letter of credit (b) - (a)
		Borrowers' loan income (deduction)	Borrowers' letter of credit (fees)	Borrowers' total income (deduction) (b)	
1	\$ (1,276)	\$ (500)	\$ 0	\$ (500)	\$ 776
2	\$ (1,439)	\$ (525)	\$ 0	\$ (525)	\$ 914
3	\$ (1,623)	\$ (551)	\$ 0	\$ (551)	\$ 1,072
4	\$ (1,830)	\$ (579)	\$ 0	\$ (579)	\$ 1,251
5	\$ (2,064)	\$ (608)	\$ 0	\$ (608)	\$ 1,456
	\$ 5,470	\$ 3,829	\$ (3,829)	\$ 0	\$ (5,470)
Total	\$ (2,763)			\$ (2,763)	\$ 0

Ideally, we would go back in time and have the thirty defaulting borrowers and the lender re-file their taxes. The defaulting borrowers would not take deductions on interest they are never going to pay. The lender would not take interest income for interest he would never receive. That ideal outcome is not possible under the current tax code, so we have a distortion.

Let us look at the effect of this distortion. The distortion caused taxable income to be created in one population, which was offset by equivalent deductions in another population. How does this affect the overall tax bill? Because any income created for the lender was offset by an equivalent deduction for the borrowers, it may seem like there is no net benefit to the government. But this is not true. A deduction will not always lower the government tax revenue,⁹⁴ but additional taxable income will always increase their tax revenue. So the government's overall tax revenue is increased. To summarize, the worse the borrower's credit, the more tax the government collects on a loan.

So how can the taxpayers remove this distortion? They cannot completely remove it, but a letter of credit gets them closer to the ideal. The letter of credit reduces the lender's taxable income and the borrowers' deductions. It mitigates the effect described above and reduces the total taxes paid by the borrower and lender.

c. A Letter of Credit is Especially Helpful if the Borrower is Tax Exempt.

In the prior section, we saw how a letter of credit can reduce a borrower's and lender's combined tax bill. However, remember that it still increased the borrower's tax bill. The borrower is better off without the letter of credit because it can take larger interest deductions. Now consider what would happen if the borrower was tax-exempt. The borrower will no longer be bothered by the loss of deductions because it does not pay any taxes. The letter of credit is now a win-win for both the borrower and the lender.

e. A Letter of Credit Can Circumvent Anti-Diversification Rules

To borrow money, state and local governments issue bonds. States allow their taxpayers to deduct interest received on their bonds. This creates a desire on the part of a state's residents to concentrate their bond investments in their home state. This prevents them from geographically diversifying their portfolio. However, this geographic risk can be mitigated by using bond insurance, or a letter of credit, to guaranty payments on the

⁹⁴ A tax deduction only reduces your tax bill if you have offsetting income. If you do not have offsetting income, the tax deduction is lost.

bond.⁹⁵

For example, assume a resident of California wants to invest in state bonds. To achieve a geographically diverse portfolio, he should spread his investments throughout the country. However, California only gives him a deduction on California bonds. New York gives him a deduction on New York bonds, but that is of no value to him. He does not live in New York and does not pay New York State tax. By using bond insurance, he can invest solely in California bonds but avoid the geographic risk caused by concentrating all of his investments in one state.

3. Institutional Isomorphism

So far, all of the reasons for using a letter of credit point to an economic benefit. Borrowers use letters of credit because it saves them money. However, in the real world, people sometimes do things even though it costs them money. Therefore, for this section, assume the bank charges so much for the letter of credit that it no longer makes economic sense. Considering our original example, let us say the bank charges \$3,000 instead of \$1,050. Now the letter of credit increases borrowing costs.

Why would a borrower get a letter of credit, if doing so will increase their borrowing costs? Justice and Simon suggest one reason may be institutional isomorphism.⁹⁶ There are three types of institutional isomorphism: coercive, normative, and mimetic.

a. Coercive Isomorphism

Generally, this is when you do something not because it helps you, but because you are forced to by law. For example, there may be a law requiring the use of letters of credit for certain types of loans. In this case, banks can overcharge for the letter of credit because the borrower has no choice.⁹⁷

b. Normative Isomorphism

This is when you do something which hurts you out of peer pressure. For example, say a person is in charge of borrowing money for an institution. He does the analysis and realizes that the bank is overcharging

⁹⁵ Jonathan B. Justice & Stewart Simon, *Municipal Bond Insurance: Trends and Prospects*, 22 Pub. Budgeting & Fin. 114, 114, 121-22 (Winter 2002) (available at <http://www3.interscience.wiley.com/cgi-bin/fulltext/118950744/PDFSTART>) (citing Dwight V. Denison, *Did Bond Fund Investors Anticipate the Financial Crisis of Orange County?*, 21 Mun. Fin. J. 24 (2000)).

⁹⁶ Justice, *supra* n. 95, at 122 (citing Paul J. DiMaggio & Walter W. Powell, *The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields*, 48 Am. Sociological Rev. 147, 147-60 (1983)).

⁹⁷ Of course, there is a limit to what banks can charge. If they charge too much, the borrower can forgo the loan and attain financing in some other way. Also, competition from other banks can reduce the cost, so long as they are not acting in an oligopolistic manner.

for the letter of credit, so he should not use one. However, assume that every professional association, account of best practices, seminar, and sales pitch is in favor of using letters of credit. If he rejects the letter of credit, he will save his department money, but he may be perceived as incompetent, possibly to the point where he loses his job. If he uses the letter of credit, it will cost the department money, but he will be perceived as competent because he follows the norms, i.e., what is assumed to be correct behavior. He may decide that perception is more important than reality and use a letter of credit even though it costs the department money.

One study suggests that such legitimacy seeking isomorphism can, in fact, be rational. Although political pressure may force an organization to sacrifice in the short term, the long term benefit of the organization's survival may justify such sacrifice.⁹⁸ For example, consider an organization that makes an economically unwise short-term decision due to peer pressure, but by doing so, ensures its survival and is ultimately able to cure a major disease. The benefit derived from surviving long enough to cure that disease justified the short term economic loss.

c. Mimetic Isomorphism

In general, this is when you are faced with a decision for which there is so much uncertainty that you do not know what to do – so you do what everyone else is doing. For example, say you are in charge of borrowing money for an institution. You have done the analysis, and you just do not know whether a letter of credit will help or hurt. There is too much uncertainty. However, you do know that most other borrowers are using letters of credit. In this case you will use a letter of credit, not necessarily because it saves your department money, but because in an uncertain situation you are more comfortable doing what everyone else is doing.

4. Conservative Nature of Government Decisions

A study⁹⁹ suggests that government borrowers are inherently more conservative than others. It presents evidence that, when public sector finance managers invest public funds, their decisions are more conservative than they would be if they were investing their own funds. Going back to our original example, let us say the government is the borrower, and they take a more conservative approach to the analysis. Rather than using a 10%

⁹⁸ Justice, *supra* n. 95, at 133 (citing Claude Roy & Francine Séguin, *The Institutionalization of Efficiency-Oriented Approaches for Public Service Improvement*, 23 Pub. Productivity Mgt. Rev. 449, 449–68 (2000)).

⁹⁹ Justice, *supra* n. 95, at 133-34 (citing Clifford P. McCue, *The Risk Return Paradox and Local Government Investing*, 20 Pub. Budgeting Fin. 80 (Fall 2000); Kevin P. Kearns, *Accountability and Entrepreneurial Public Management: The Case of the Orange County Investment Fund*, 15 Pub. Budgeting Fin. 3 (Fall 1995)).

default rate, they estimate their own default rate to be 15%. The true default rate is 10%, but the government's conservative attitude causes them to overestimate it. For a 15% default rate, the bank should charge \$1,575 for the letter of credit.¹⁰⁰ However, because the bank estimates a 10% default rate, they only charge \$1,050.¹⁰¹ Thus, the government believes they are paying \$1,050 for a letter of credit, which is worth \$1,575, and so they perceive it as a rational decision. The government thinks they are getting a good deal because they conservatively overestimated their own default rate. This perception justifies their purchase of the letter of credit.

5. Corruption

Corruption can take many forms in government. For example, there is pay-to-play corruption where vendors get favorable treatment from the government in exchange for campaign contributions to the elected officials who select vendors. Corrupt states make less efficient economic decisions and are more likely to default. A paper by Butler presents evidence that, when corrupt¹⁰² states borrow money, they are more likely to get a third party to guaranty their debt either in the form of a bank letter of credit or bond insurance.¹⁰³

It is not clear why corrupt states use credit enhancement. The author shows that, as expected, credit enhancement reduces a corrupt state's interest rate. However, we do not know if it reduces their total borrowing costs because the author does not know how much they paid for the credit enhancement.¹⁰⁴ Therefore, cost savings may not explain their use of letters of credit and bond insurance. It is not clear why they use it, and so this may be an area worth further research.

6. Signal Validity of Transaction

a. Exchange Controls

Exchange controls are a way for certain governments to regulate the amount of currency taken out of the country. For example, in Venezuela, residents are allowed to take Bolivars out of the country only for certain reasons and only up to a certain amount. For example, they are allowed to

¹⁰⁰ $\$10,500 - 85 \times \$100 \times 1.05 = \$1,575$

¹⁰¹ See calculation *supra* sec. I.B.

¹⁰² For a comparison of corruption levels by state, see Alexander W. Butler, Larry Fauver & Sandra Mortal, *Corruption, Political Connections, and Municipal Finance* 40-41 (Am. Fin. Assn. 2008 New Orleans Meetings Working Paper, Aug. 25, 2008) (available at <http://ssrn.com/abstract=972471>).

¹⁰³ *Id.* at 21, 43.

¹⁰⁴ *Id.* at 3 ("We note that data on the cost of obtaining credit enhancements are, unfortunately, not available. Were these data available, they would provide an estimate of the shadow cost of corruption.")

take \$5,000 worth of Bolivars out of the country for vacations.¹⁰⁵ They are also allowed to move Bolivars out of the country to import goods and for other allowed activities. If they convert Bolivars into dollars for one of these allowed activities, they can use the official exchange rate of about 2.15 Bolivars per dollar. Of course there is also a black market, but the exchange rate there is about five bolivars per dollar. The country's banks, however, will generally not participate in the black market. Their noncompliance carries far greater risk than does the noncompliance of your average black-market currency exchanger.

Let us say you regularly spent time in Venezuela, and at a party you make the acquaintance of Lucas, the owner of a Venezuelan sporting goods chain. Lucas learns of your factory, where you manufacture tennis rackets. You discuss his purchase of \$1 million worth of rackets for sale in his stores. Unfortunately, he does not have the capital with which to pay for these rackets, so he needs to structure this transaction as a loan. You will deliver the tennis rackets to Venezuela. He will then sell them and use the money raised to pay you back. As collateral, he offers you a security interest in his house, which is worth 2.15 million Bolivars. You call your attorney, who informs you that this is fine, except for one thing. If you have to repossess his house and convert it into dollars at the black-market exchange rate, you are only going to get \$430,000.¹⁰⁶ You raise this concern with your business partner, but he assures you that he has approval to pay for the goods at the official exchange rate. He shows you a document signed by a Venezuelan government official that verifies this. Unfortunately, you do not know anything about the reliability of this document and you would like greater security. A letter of credit can provide that security.

Rather than take a security interest in his house, you ask him to get a letter of credit from a large Venezuelan bank. Under the letter of credit, the Venezuelan bank promises to pay you \$1 million should Lucas default on the loan. To protect their interest, the Venezuelan bank takes a security interest in Lucas' house. Of course, the bank would not get involved in this transaction unless they knew that paying you would not violate the exchange controls. However, as long as Lucas' government document is good, something the bank is better able to verify than you, there is no reason why the bank would refuse to enter into this transaction. So for a nominal fee, the bank will give you this letter of credit. You no longer have to worry about taking a security interest in an asset that may only be worth 43% of what you are lending, and Lucas is able to get the financing he needs, all because the letter of credit allowed you to verify the validity of the

¹⁰⁵ Simon Romero, *Venezuelans Taking Circuitous Route to Get Dollars*, Intl. Herald Tribune, March 13, 2008 (available at 2008 WLNR 4901937).

¹⁰⁶ 2,150,000 bolivars converted into dollars, at a five bolivars per dollar exchange rate = \$430,000

transaction.

In addition to currency controls, there are a number of other ways a letter of credit can give a lender comfort. By getting a bank involved, you give the transaction the legitimacy which it may otherwise not enjoy. A thorough exploration of such transactions is beyond the scope of this paper, but it is something for lenders and borrowers to consider.

7. Dispel Concerns Regarding Naïve Investor Hypothesis

The naïve investor hypothesis states that a bank only sells off its bad loans. For example, let us say a bank lent \$1 million to Al's auto shop, \$2 million to Susie's clothing store, and \$5 million to Mary's grocery. The bank then securitizes these loans. In other words, it puts these loans into a trust and sells shares of that trust to investors. So how much should investors pay for shares of this trust? Well, it all depends on the quality of these loans. The naïve investor hypothesis would suggest that these are bad loans, otherwise, the bank would not be selling them off.

Although the naïve investor hypothesis is controversial and has been rejected by a number of studies,¹⁰⁷ it is still a valid basis for concern. If investors are truly worried that a bank has misrepresented the quality of the loans, they can alleviate their worries by demanding that the same bank issue letters of credit backing the loans.

8. Converts Illiquid Security Interest Into A Liquid One

This last benefit is obvious, but I wanted to mention it because it allows letters of credit to be used in so many different situations. To start this section, remember that any time you make a promise, you are in an abstract sense acting as the borrower in a loan transaction. By making the promise, you gained something now,¹⁰⁸ and in return promised to deliver something in the future.

So can letters of credit be used to back promises? The answer is yes! Letters of credit can be used to back any promise. They are as flexible as your imagination. A letter of credit helps guaranty promises by taking an illiquid security interest and converting it into a liquid one. In doing so, it facilitates the creation of deals, which would otherwise never have been entered into.

For example, let us say John and Mary are a divorced couple with a child Samantha. John lives in Russia, while Mary lives in Chile. In the

¹⁰⁷ See generally Dario Focarelli & Alberto Franco Pozzolo, *Conflicts of Interest in Financial Markets: Evidence from Bond Underwriting in the Nineties* (unpublished ms., Università degli Studi del Molise, Dec. 2004) (available at <http://www.unimol.it/progetti/repec/mol/ecsdp/ESDP05023.pdf>).

¹⁰⁸ This can be something as simple as the other party's confidence.

divorce decree, Mary got custody of Samantha, who lives with her in Chile. John would like to take Samantha to Russia for a year to teach her about Russian culture. Mary understands the importance of this but is worried that John will take Samantha to Russia, and Samantha will never return. Maybe Samantha will become accustomed to her life in Russia and not mind staying. Rather than bring her back as promised, John may let Samantha stay in Russia indefinitely.

How can Mary get John to keep his promise? One way would be to enter into a contract with John, stating that if John does not return Samantha to Chile in one year, then he must pay Mary \$1 million. His promise can even be secured by taking an interest in John's assets. John's assets are in Russia, thus, Mary will have to comply with Russian rules regarding asset attachment. She will also have to comply with Russian law to make sure the contract is enforceable. Ultimately, she cannot be sure that it is enforceable, as a Russian judge may declare it void against public policy. Even if she wins, John may appeal. If it is enforced, she still must go to Russia to seize and sell John's assets to collect. As you can see, there is a lot of bother to enforcing and collecting on a traditional contract. It does not provide the assurance she needs. If this is all John offers, Mary will not agree to let Samantha go to Russia.

Now what if John got a letter of credit from a large Russian bank? This letter of credit will state that if Mary gives the bank an affidavit stating that John has not returned Samantha, the Russian bank will pay Mary \$1 million. The Russian bank will secure their position by taking an interest in John's assets, which are worth \$1 million. Once the bank pays Mary, they will immediately take legal ownership of John's assets. So now, if John breaks his promise, all Mary has to do is give the Russian bank a piece of paper, and they will give her \$1 million. We will get into the strong enforceability of letters of credit later, but in short, John cannot stop the bank from paying Mary the \$1 million. In fact, they will pay in a few days.¹⁰⁹ The bank will then recoup their \$1 million by seizing and selling John's assets.

Granted, John can start legal proceedings to reverse everything. He will have to convince a court to void the underlying agreement between Mary and himself. If he wins, he will have to get this judgment enforced in Chile. If he does all this, he will get his \$1 million. He will then have to return to Russia and repurchase all of his goods. Notice that previously, Mary had to worry about litigation and collection, but the letter of credit shifted that burden to John.

Due to these repercussions, John will think very carefully before

¹⁰⁹ *Infra* n. 183.

breaking a promise backed by a letter of credit. Because the letter of credit provides strong incentive for John to keep his promise, Mary may now be willing accept the promise and let Samantha travel with him to Russia. Viewing this as an abstract loan, the letter of credit reduced the risk to the “lender” (Mary) and allowed them to make the loan.

There is nothing in letter of credit law that limits its use to traditional loans. Any time you encounter a promise, and the promisor has assets, it may be worth using a letter of credit to ensure that promise is kept. In fact, letters of credit were used in this fashion on an international level. For example, letters of credit were used to ensure John F. Kennedy’s promise to pay Fidel Castro \$49 million worth of goods in exchange for the release of soldiers captured in the 1961 Bay of Pigs incursion.¹¹⁰ Gerald McLaughlin suggests that letters of credit can be used to secure other international promises. Examples given are promises related to controlling the spread of AIDS, limiting weapons of mass destruction, and enforcing whaling prohibitions.¹¹¹ In a letter of credit seminar, we discussed numerous personal promises worthy of a letter of credit, including a professional athlete’s promise not to take steroids and a celebrity spouse’s promise to abide by a confidentiality agreement.

III. BOND INSURANCE

A. Origin of Bond Insurance and Its Explosive Growth

Letters of credit are not the only way to guaranty payments on a loan. Another way to achieve this result is by purchasing bond insurance, also known as financial guaranty insurance. Financial guaranty insurance is a relatively new product. The first company to sell this product was Ambac, Inc., which was formed in 1972. Another large insurer, MBIA Inc., was formed in 1974.

The use of bond insurance has increased steadily since 1971. In 1980, bond insurance companies insured just 4% of municipal bond issues. By 1985 they insured about 20%. By 1991, they insured 30% of municipal bond issues, and they insured over 50% of all municipal bond issues in 2000.¹¹² While bond insurance has grown, letters of credit have been squeezed out of the municipal bond market. Since 1991, letters of credit have only insured 3%-8% of all new municipal bond issues.¹¹³ For example, in California, in 2006, 92% of credit-enhanced bonds used bond

¹¹⁰ Gerald T. McLaughlin, *Remembering the Bay of Pigs: Using Letters of Credit to Facilitate the Resolution of International Disputes*, 32 Ga. J. Intl. & Comp. L. 743, 760 (2004).

¹¹¹ *Id.* at 767-72.

¹¹² Justice, *supra* n. 95, at 115; Kenneth N. Gilpin, *Credit Markets: A Boom in Insured Municipals*, 141 N.Y. Times D7 (Apr. 27, 1992).

¹¹³ Justice, *supra* n. 95, at 115-16.

insurance, while only 4% used letters of credit.¹¹⁴

Bond insurance especially shined in the 1983 Washington Public Power Supply System (“WPPSS”) default. WPPSS had issued bonds to build two nuclear power plants, but the construction of these plants halted in January of 1982 due to cost overruns. Having no source of revenue to make payments, WPPSS¹¹⁵ was forced to default on \$2.25 billion of bonds in 1983. In this default, Ambac was one of the only¹¹⁶ parties to make any payments, and this led to greater appreciation for the value of bond insurance.¹¹⁷ Bond insurers have since branched out and are now insuring a wide variety of financial products.¹¹⁸

B. Why is Bond Insurance Popular?

1. A Valuable Tax Shelter

a. How the Tax Shelter Works

Nanda and Singh¹¹⁹ articulate how bond insurance is used as a tax shelter. The details are carefully described in their paper through mathematical equations, theorems, and lemmas. Below, I give a few simplified numerical examples to explain how the shelter works. All of the examples below involve a ten-year bond that pays coupons annually.

What is happening is that the lender’s money is invested by two different parties – the municipality (the borrower) and the insurance company (the guarantor). Let us look at the insurance company. To keep things simple, say the insurance company will not pay any tax because they net out their position and thus make no profit.¹²⁰ Note how the insurance company can invest in a taxable security but not pay tax on that investment. Now here is the trick. When the municipality defaults, the insurance company will make bond payments in their place. None of these payments will be taxable because they are payments on a tax-free bond.¹²¹ So once all is said and done, the investor was able to use the insurance company to invest in a taxable asset, without paying any tax! The value gained from this can be passed along to the investor, municipality, guarantor, or most likely,

¹¹⁴ Coleman, *supra* n. 11, at 35.

¹¹⁵ This was known as the “whoops” (WPPSS) default.

¹¹⁶ I do not know if letters of credit were involved in the WPPSS bond issue.

¹¹⁷ Justice, *supra* n. 95, at 116.

¹¹⁸ *Infra* sec. III.C.2.

¹¹⁹ See generally Vikram Nanda & Rajdeep Singh, *Bond Insurance: What Is Special about Munis?*, 59 J. Fin. 2253 (2004).

¹²⁰ Assume they structure their portfolio to earn no profit. They can do this by paying out claims equal to the amount of premium and investment income they earn. Note that their making a profit will not affect the result, so long as it does not eat up all of the tax shelter’s subsidy.

¹²¹ For the lender’s taxes, the “look-through” rule treats these payments as if they were made by the defaulting borrower. Miller, *supra* n. 75, at 130-31; 26 U.S.C. § 103(a).

it will be shared by all three.

Let us look at a few examples to see how the numbers work. The numbers would be too complicated if we did a one hundred borrower pool as we did before; therefore, only one borrower will be used. For this purpose assume the risk-free interest rate is 5%, and the tax rate is 50%. Thus, if you want to invest in a risk-free taxable bond, you should expect a 5% return, and if you want to invest in a risk-free tax-exempt bond you should expect a 2.5% return.¹²²

First, let us look at an issuer of taxable bonds. Say the issuer, a corporation, has an excellent credit rating. An investment in them will be risk-free. They want to borrow \$10 million. They will invest in a corporate project, which returns 5% for every dollar invested.¹²³

Year	1	2	3	4	5
B.O.Y. value of assets held by corporation	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000
Corporation's return	\$ 500	\$ 500	\$ 500	\$ 500	\$ 500
Corporation's payment on bond	\$ 500	\$ 500	\$ 500	\$ 500	\$ 500
E.O.Y. value of assets held by corporation	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000
Investor's pre-tax income	\$ 500	\$ 500	\$ 500	\$ 500	\$ 500
Investor's post-tax income	\$ 250	\$ 250	\$ 250	\$ 250	\$ 250

Year	6	7	8	9	10
B.O.Y. value of assets held by corporation	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000
Corporation's return	\$ 500	\$ 500	\$ 500	\$ 500	\$ 500
Corporation's payment on bond	\$ 500	\$ 500	\$ 500	\$ 500	\$ 10,500
E.O.Y. value of assets held by corporation	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 0
Investor's pre-tax income	\$ 500	\$ 500	\$ 500	\$ 500	\$ 10,500
Investor's post-tax income	\$ 250	\$ 250	\$ 250	\$ 250	\$ 10,250

This is a pretty boring set of numbers. The corporation took the \$10 million and invested it in their project. In the first year, they made \$500,000, or 5%, and also paid \$500,000 to their bondholders. This left them with no profit and thus no taxes. At the end of the first year, the corporation has \$10 million in assets. They reinvest this in the project and the cycle continues. The important thing to see is that when the borrower gets the \$500,000 coupon, they have to pay tax. When they pay that tax, they will only have \$250,000 of after-tax income.

Now let us add bond insurance. Suppose the corporation has a bad reputation for repaying debt. To make their bonds marketable, they use bond insurance to guaranty their payments. To keep things simple, let us

¹²² So that both bonds will have the same after-tax return ($5\% \times 50\% = 2.5\%$), the after tax returns have to be equal. Otherwise, the one with the lower after tax return would not be competitive.

¹²³ To keep the numbers simple, we are assuming they only earn enough to make payments on the bond. In reality, they will earn a profit. They will invest in a project returning more than 5%. Adding that nuance, though, would only complicate the numbers and obfuscate the shelter's mechanism without affecting the relevant results.

say that the corporation is going to default on all of their coupon payments. Say the bond insurance company was able to predict this accurately and charged them the right amount of premium to cover their default. As you can verify by tracking the numbers below, the insurance company is going to need to charge \$3,861,000 of premium to ensure this debt. That will leave the corporation with \$6,139,000 ($\$10,000,000 - \$3,861,000 = \$6,139,000$). The chart below tracks the cash flow from year to year.

Year	1	2	3	4	5
B.O.Y. value of assets held by corporation	\$ 6,139	\$ 6,446	\$ 6,768	\$ 7,107	\$ 7,462
Corporation's return	\$ 307	\$ 322	\$ 338	\$ 355	\$ 373
Corporation's payment on bond	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
E.O.Y. value of assets held by corporation	\$ 6,446	\$ 6,768	\$ 7,107	\$ 7,462	\$ 7,835
B.O.Y. value of assets held by Ins. Co.	\$ 3,861	\$ 3,554	\$ 3,232	\$ 2,893	\$ 2,538
Ins. Co.'s return	\$ 193	\$ 178	\$ 162	\$ 145	\$ 127
Ins. Co.'s payment on bond	\$ 500	\$ 500	\$ 500	\$ 500	\$ 500
E.O.Y. value of assets held by Ins. Co.	\$ 3,554	\$ 3,232	\$ 2,893	\$ 2,538	\$ 2,165
Investor's pre-tax income	\$ 500	\$ 500	\$ 500	\$ 500	\$ 500
Investor's post-tax income	\$ 250	\$ 250	\$ 250	\$ 250	\$ 250
Year	6	7	8	9	10
B.O.Y. value of assets held by corporation	\$ 7,835	\$ 8,227	\$ 8,638	\$ 9,070	\$ 9,524
Corporation's return	\$ 392	\$ 411	\$ 432	\$ 454	\$ 476
Corporation's payment on bond	\$ 0	\$ 0	\$ 0	\$ 0	\$ 10,000
E.O.Y. value of assets held by corporation	\$ 8,227	\$ 8,638	\$ 9,070	\$ 9,524	\$ 0
B.O.Y. value of assets held by Ins. Co.	\$ 2,165	\$ 1,773	\$ 1,362	\$ 930	\$ 476
Ins. Co.'s return	\$ 108	\$ 89	\$ 68	\$ 46	\$ 24
Ins. Co.'s payment on bond	\$ 500	\$ 500	\$ 500	\$ 500	\$ 500
E.O.Y. value of assets held by Ins. Co.	\$ 1,773	\$ 1,362	\$ 930	\$ 476	\$ 0
Investor's pre-tax income	\$ 500	\$ 500	\$ 500	\$ 500	\$ 10,500
Investor's post-tax income	\$ 250	\$ 250	\$ 250	\$ 250	\$ 10,250

Accordingly, in the first year, the corporation took the \$6,139,000 and invested in the project earning a 5% return of \$307,000. It defaults on the coupon payment to the bondholders, but the insurance company pays in its place. Now let us look at the insurance company. It started off with \$3,861,000, which they invested in a taxable security earning 5%, or \$192,000. They then paid out \$500,000 to the bondholders. Repeat this annual cycle all the way to the end. After ten years, the corporation has \$10 million, which it will pay to the bondholders.¹²⁴ The insurance company is left with no money, confirming that every penny of premium and investment income was paid out. The insurance company made no profit on this

¹²⁴ Remember that in our hypothetical the corporation only defaulted on coupon payments. It did not default on the principal payment.

transaction, and thus it will pay no tax.¹²⁵ The bondholders get the same \$250,000 of annual after-tax income, which they could have gotten by lending to a creditworthy company that did not use bond insurance.

Why did we compare taxable bonds with and without bond insurance? I included this set of numbers only to show that the tax shelter, which we will soon see for tax exempt bonds, does not exist for taxable bonds. This may explain why so few taxable bonds use bond insurance, whereas the majority of tax-exempt bonds use bond insurance.

Now let us look at a tax exempt bond. Let us say a state wants to build a power plant, and to finance the construction they are going to issue bonds. This power plant will return 2.5%¹²⁶ per year on every dollar invested in it. The ten-year cash flow is below.

Year	1	2	3	4	5
B.O.Y. value of assets held by municipality	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000
Municipality's return	\$ 250	\$ 250	\$ 250	\$ 250	\$ 250
Municipality's payment on bond	\$ 250	\$ 250	\$ 250	\$ 250	\$ 250
E.O.Y. value of assets held by municipality	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000
Investor's pre-tax income	\$ 250	\$ 250	\$ 250	\$ 250	\$ 250
Investor's post-tax income	\$ 250	\$ 250	\$ 250	\$ 250	\$ 250

Year	6	7	8	9	10
B.O.Y. value of assets held by municipality	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000
Municipality's return	\$ 250	\$ 250	\$ 250	\$ 250	\$ 250
Municipality's payment on bond	\$ 250	\$ 250	\$ 250	\$ 250	\$ 10,250
E.O.Y. value of assets held by municipality	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 0
Investor's pre-tax income	\$ 250	\$ 250	\$ 250	\$ 250	\$ 10,250
Investor's post-tax income	\$ 250	\$ 250	\$ 250	\$ 250	\$ 10,250

Again, these are boring numbers. The municipality invested the \$10 million in the power plant. In the first year, it made \$250,000, or 2.5%, and paid \$250,000 to its bondholders. The cycle continues for ten years, at which point the municipality pays off the bond. Note again that the borrower's after tax income is \$250,000 each year, just as in the prior two scenarios.

¹²⁵ Elaborating on *supra* note 120, the insurance company will have taxable income in some years, and deductions in others. In the first year they had \$3,861,000 of premium income, and \$192,000 of investment income, but only \$500,000 of claims losses. Thus, they had taxable income of \$3,169,000. The insurance company can, however, net out each year's taxable income to zero by moving deductions backwards and forwards. They can also set up a dynamic portfolio of insured bonds, such that in any year, the next taxable income is zero. To keep it simple, let us say they are successful at this and pay no taxes.

¹²⁶ You may be wondering why the municipality's investment is returning less than the corporation's investment. Government projects earn revenue by taxing or otherwise charging the municipality's citizens. Granted the municipality could charge such high utility rates that they would earn 5% on this power plant, but due to political pressures they want to charge as little as possible. Because they only need to return 2.5% to pay off these bonds, they will only charge their citizens enough to earn 2.5%.

Finally, let us add bond insurance. As in our last scenario with bond insurance, let us say the municipality has a bad reputation. To keep things simple, assume it will default on all coupon payments, and the insurance company was able to predict this. As you can verify by tracking the numbers, the insurance company is going to need to charge \$1,930,000 of premium to insure this debt. That will leave the municipality with \$8,070,000.¹²⁷ The chart below illustrates what happens from year to year.

Year	1	2	3	4	5
B.O.Y. value of assets held by municipality	\$ 8,070	\$ 8,245	\$ 8,423	\$ 8,606	\$ 8,792
Municipality's return	\$ 175	\$ 179	\$ 183	\$ 187	\$ 191
Municipality's payment on bond	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
E.O.Y. value of assets held by municipality	\$ 8,245	\$ 8,423	\$ 8,606	\$ 8,792	\$ 8,983
B.O.Y. value of assets held by Ins. Co.	\$ 1,930	\$ 1,777	\$ 1,616	\$ 1,447	\$ 1,269
Ins. Co.'s return	\$ 97	\$ 89	\$ 81	\$ 72	\$ 63
Ins. Co.'s payment on bond	\$ 250	\$ 250	\$ 250	\$ 250	\$ 250
E.O.Y. value of assets held by Ins. Co.	\$ 1,777	\$ 1,616	\$ 1,447	\$ 1,269	\$ 1,082
Investor's pre-tax income	\$ 250	\$ 250	\$ 250	\$ 250	\$ 250
Investor's post-tax income	\$ 250	\$ 250	\$ 250	\$ 250	\$ 250

Year	6	7	8	9	10
B.O.Y. value of assets held by municipality	\$ 8,983	\$ 9,178	\$ 9,377	\$ 9,580	\$ 9,788
Municipality's return	\$ 195	\$ 199	\$ 203	\$ 208	\$ 212
Municipality's payment on bond	\$ 0	\$ 0	\$ 0	\$ 0	\$ 10,000
E.O.Y. value of assets held by municipality	\$ 9,178	\$ 9,377	\$ 9,580	\$ 9,788	\$ 0
B.O.Y. value of assets held by Ins. Co.	\$ 1,082	\$ 886	\$ 681	\$ 465	\$ 238
Ins. Co.'s return	\$ 54	\$ 44	\$ 34	\$ 23	\$ 12
Ins. Co.'s payment on bond	\$ 250	\$ 250	\$ 250	\$ 250	\$ 250
E.O.Y. value of assets held by Ins. Co.	\$ 886	\$ 681	\$ 465	\$ 238	\$ 0
Investor's pre-tax income	\$ 250	\$ 250	\$ 250	\$ 250	\$ 10,250
Investor's post-tax income	\$ 250	\$ 250	\$ 250	\$ 250	\$ 10,250

Therefore, as before, the insurance company took their \$1,930,000 of premium and invested it at 5%, eventually paying all of their income out as claims. Thus, the insurance company makes no profit and pays no tax.¹²⁸ As before, the bondholder received \$250,000 of after-tax income every year just. Now here is the interesting part. The municipality only has to return 2.17% on the project.¹²⁹ While the municipality with a good credit rating has to earn 2.5% on its project, the municipality with poor credit only has to earn 2.17%. This subsidy comes at the expense of the Federal Government. As described earlier, what is happening is that the insurance company is investing in taxable assets and not paying tax. Then, when it pays the proceeds to bondholders, those bondholders also do not pay any tax because

¹²⁷ \$10,000,000 - \$1,930,000 = \$8,070,000.

¹²⁸ See *supra* nn. 120, 125.

¹²⁹ For example, in the first year, $\$175/\$8,070 = 2.17\%$. In the second year, $\$179/\$8,245 = 2.17\%$. The same holds for each of the other ten years.

the proceeds are payments on tax-exempt bonds. As a result, investments which would otherwise have been taxed are not, and the Federal Government loses tax revenue. This saves the public money. In this case, the value gained was transferred to the municipality, who now only has to return 2.17% on its activities instead of 2.5%. More realistically, this value will be shared by the municipality, insurance company, and bondholder.

b. Why Can You Not Use Letters of Credit in Such a Shelter?

You might be wondering why letters of credit cannot be used in the above shelter. The tax shelter above only works if the guarantor makes tax-exempt payments to the bondholder. To get the most out of this tax shelter, you want the guarantor to continue making coupon payments on the bond.

However, letters of credit do not continue making interest payments. Once there is a default, letters of credit will just pay off the outstanding balance.¹³⁰ If the municipality defaults, the letter of credit will not continue making interest payments through year ten. At most, a letter of credit will make one interest payment to account for interest accrued during the year of default. So in our example, when the municipality defaults in year one, the letter of credit will simply pay off the loan, i.e., return \$10,250,000 to the bondholders. By paying off the loan rather than continuing the interest payments, the letter of credit does not capitalize on the tax shelter.

Why does the tax shelter only work if the guarantor makes interest payments? Why does it not work when the guarantor makes return of principal payments? To give a very brief summary here, when the municipality defaults on its principal payments, the bondholder gets a capital-loss tax deduction from the Federal Government. This tax deduction is lost when the guarantor makes principal payments for a defaulting municipality. The guarantor's payment of principal hurts the effectiveness of the tax shelter. Nanda and Singh describe the math in greater detail in their paper.

c. Summary

Based on the above analysis, it is hard to see why any municipality would maintain a good credit rating. They are better off maintaining the reputation of an un-creditworthy borrower and using bond insurance.¹³¹

¹³⁰ Stan Provus, *Council of Development Finance Agencies Spotlight: Types of Credit Enhancement*, <http://www.cdfa.net/cdfa/cdfaweb.nsf/pages/tlcfef2006.html> (accessed Feb. 17, 2009).

¹³¹ Not surprisingly, studies have shown that bond insurance is most cost effective for credit-poor borrowers. John M. Quigley & Daniel L. Rubinfeld, *Private Guarantees for Municipal Bonds: Evidence from the Aftermarket*, 44 Natl. Tax J. 29, 33 (1991) ("Bland and Yu used similar regression techniques to estimate the [net interest cost] savings from insurance at various levels of underlying creditworthiness, concluding that insurance is only 'cost effective' for issues with underlying ratings of Baa-1 or that are unrated. . . . Other work by Bland . . . yields similar conclusions. . . . Recent work by Kidwell . . .

Through the tax code, the Federal Government subsidizes credit-poor states which use bond insurance. Creditworthy states do not get this subsidy.

In our example, the creditworthy state had to earn 2.5% on its power plant. The credit-poor state only had to earn 2.17%. As a result, the creditworthy state has to charge its citizens a higher utility rate, while the credit-poor borrower's citizens pay lower utility rates! After reading this, I imagine you are much less worried about your state's poor credit rating.

The analysis also explains why so many tax-exempt bonds are insured; whereas, taxable bonds are not. Remember that the first two examples showed how you cannot exploit this tax shelter when insuring a taxable bond.

2. Bond Insurance is Cheaper Than a Letter of Credit

Bond insurance is much cheaper than a letter of credit. Bond insurance may charge a premium of 0.5%-2% for the life of the loan.¹³² A letter of credit may charge that percentage for just one year's worth of coverage.¹³³ There is one difference though. Bond insurance premiums are generally a percentage of the expected payments. Letter of credit premiums are only a percentage of the outstanding balance. Overall, though, bond insurance is generally cheaper.

For example, suppose you borrow \$10 million at 5% interest with coupons of \$500,000 payable every year for twenty years, at which time you will pay back the \$10 million of principal. The letter of credit fee would be about 1% of the outstanding balance at the beginning of the year. This outstanding balance will be \$10 million throughout, so the letter of credit fee will be \$100,000 per year, for twenty years.¹³⁴ The present value of these payments at 5% will be about \$1.3 million. Compare this to a bond insurance fee of 1.5% of the total payments. The total payments are going to be \$10 million plus twenty payments of \$500,000, or \$20 million (1.5% of \$20 million = \$300,000).

So, the letter of credit's total cost, in today's dollars, is \$1.3 million.

[showed that] [o]n average, net benefits of insurance varied inversely with Moody's quality rating and were insignificantly different from zero for the highest-rated bonds . . .").

¹³² Robert L. Bland, *The Interest Cost Savings from Municipal Bond Insurance: The Implications for Privatization*, 6 J. Policy Analysis Mngt. 207, 209 (1987) ("Once insured, the policy cannot be cancelled. . . . The insurance premium charged by AMBAC ranges from 0.5 to 1.25 percent of the *sum* of principal and interest; for MBIA, the range is 0.1 to 2.0 percent. The premium for a given issue depends upon the issuer's underlying credit rating as well as the size and length to maturity of the issue, but a reasonable guess places the average premium at about 0.80 percent of principal and interest. The premium is almost always paid 'up front' (at the point of sale) and from the proceeds of the bond sale.").

¹³³ Provus, *supra* n. 130 ("Bond insurance premiums are typically charged based on a percentage, such as .2-2%, times the principal and interest paid over the life or maturity of an issue. . . . [Letter of credit fees are] typically .5%-2% of the outstanding principal amount annually . . .").

¹³⁴ This assumes the bank does not later increase the fee. This is unlikely, as the bank is likely to increase or lower the fee over time as the creditworthiness of the borrower changes.

Bond insurance only costs about one-fourth of that amount, or \$300,000. In addition, with the letter of credit you have to renew the policy every year. The calculation above assumed the same letter of credit fee for all twenty years, but in fact that fee may go up if the borrower's creditworthiness drops. With bond insurance, you pay one fee up front and lock coverage in for the life of the loan. It is easy to see why bond insurers are cornering the credit enhancement market.

C. Why is Bond Insurance Riskier?

1. Bond Insurance is Priced Differently Than Letters of Credit

a. Banks Use Short-Term Creditworthiness Analysis; Insurance Companies Use Long-Term Analysis

In 1985, Citibank was considering the purchase of Ambac, the oldest and largest bond insurance company. To do so, they needed approval from the Office of Comptroller of the Currency ("OCC"). The OCC is a federal agency which regulates nationally chartered banks. The OCC approved the purchase. But this approval was conditioned on Citibank's promise to price Ambac's guaranties using short-term creditworthiness analysis, rather than the long-term actuarial analysis used by insurance companies.¹³⁵

What is the difference between these two methods? One difference is the time horizon. Banks do not like long-term risk. Most bank letters of credit are renewed annually. Almost none provide coverage for more than five years.¹³⁶ Bond insurance, on the other hand, provides coverage for the life of the bond. This coverage could last ten years, twenty years, or even

¹³⁵ Michael Patriarca, *Issuance of Standby Letters of Credit by Subsidiary to Support Municipal Bond Issues*, in *Federal Banking Law Reporter* 77,790, 77,792 (Com. Clearing H., Inc. 1985-1987) (available at 1985 WL 73130) ("The Bank has assured this Office that its operating subsidiary will provide this standby credit only after it engages in a credit analysis of the sort that the Bank would itself perform before providing any credit facility to the issuer. This credit analysis is not based on an actuarial computation of the likelihood that the particular issuer will default. It is based instead on an evaluation of the bond issuer's financial strength or the collateral it pledges.").

Note how, now that Ambac is part of a bank, the O.C.C. calls its guaranty "standby letters of credit," instead of calling it bond insurance. *Id.* at 77,790. A large part of this letter was devoted to noting how Ambac's guaranties must now operate like letters of credit, otherwise the acquisition would not be approved. Citibank eventually sold off its ownership of Ambac in 1991 and 1992. See Michael Quint, *Citibank May Have to Alter Insurance Accounting Method*, N.Y. Times 2D (Feb. 7, 1990) (available at 1990 WLNR 3005092); Michael Quint, *Citicorp Sells Majority Stake in Bond Insurer Subsidiary*, N.Y. Times D4 (July 12, 1991) (available at 1991 WLNR 3022028). Citibank sold Ambac because the new Basel I banking regulations increased the capital required to support Ambac's guaranties. *Id.* After the sale, Ambac's guaranties left the world of letters of credit and moved back into the world of bond insurance. *Id.* Basel I will be discussed later in this paper.

¹³⁶ Aicher, *supra* n. 20, at 973 n. 178 ("The authors are aware of the ten year and longer letters of credit issued in the 1980s at the high point of the Japanese bank competition in the credit enhancement marketplace. But as time has shown, these were an aberration.").

longer.¹³⁷

Another difference is that banks use a more conservative decision-making process. In deciding whether to issue a letter of credit, the bank's most important question is whether to make this person a loan.¹³⁸ Say you want to borrow \$1 million, and you go to a bank to get a letter of credit to guaranty your repayment. Their decision will hinge on, or at least be impacted greatly by, whether they would have loaned you \$1 million. Note the conservative nature of this approach. A letter of credit is not a loan. The two have different liquidity requirements. When the bank loans you \$1 million, they have to pay you that full amount right now. On a letter of credit, however, the bank will likely never pay the \$1 million. Still, the bank takes this conservative approach because it is believed to be a sound banking practice.¹³⁹

Now let us look at how an insurance company makes their decision. The insurance company will estimate the likelihood and the moment of your default, and decide how much money they need to charge you to pay your claims. Fundamentally, the insurance company approach is the economically correct approach. The decision to insure you should not be controlled by whether they would make you a loan. They should only be concerned with charging you a sufficient premium so that they will be able to pay your claims.

For example, if you go to an insurance company to get a \$1 million life insurance policy, your creditworthiness is irrelevant.¹⁴⁰ They will estimate the likelihood of payment and charge you a sufficient premium to meet that contingency. Similarly, if you want them to guaranty your loan, your creditworthiness will only be used to decide how much premium to charge you. It will not affect their decision to offer you insurance. They will estimate the likelihood of your default and charge you a sufficient premium to meet that contingency. If you have a high risk of default, they will charge you a greater premium. In summary, the insurance company

¹³⁷ Interestingly, some municipalities will insure their long term bonds, but not insure their short term bonds. For example, when the City of Seattle Water System issued bonds in 1999, those maturing prior to 2016 were left uninsured, while those maturing in 2017 or later were insured by FGIC. The City of Seattle made similar arrangements for their 1999 issue of Drainage and Wastewater revenue bonds and Water System revenue bonds. The State of Nevada did the same thing in its 1995 bond issue, not insuring bonds with maturity prior to 2025 and insuring those with a 2025 maturity. Nanda, *supra* n. 119, at 2269 n. 17.

¹³⁸ See e.g. Pealer, *supra* n. 67, at 279 (“[B]anks are more likely to focus on the financial aspects of the letter of credit (i.e., the ability of the contractor to provide reimbursement), while sureties often focus more on the degree of risk in the project itself.”).

¹³⁹ Patriarca, *supra* n. 135, at 77,791-92 (“Even though the chances that a draw may occur are slim, the bank must perform a credit evaluation because it must assume as a matter of sound banking practice that it will pay.” (citing John F. Dolan, *The Law of Letters of Credit: Commercial and Standby Credits* ¶ 12.03[1][b] (Warren, Gorham & Lamont 1984))).

¹⁴⁰ Unless, of course, there is reason to believe your creditworthiness will impact your mortality. I am not aware of any studies analyzing this relationship.

will insure you in situations where a bank would not have made you a loan. So long as they charge a sufficiently high premium, they are covered. Although the insurance company's long-term probability-of-default based approach is theoretically correct, it is also riskier¹⁴¹ due to the black swan effect.

b. The Black Swan

I think everyone would accept that estimates of the future can turn out to be wrong. This problem has been studied for centuries and was likely articulated shortly after man made his first prediction. One of the best-known formulations was given by philosopher David Hume in his critique of induction.¹⁴² The idea is that inductive thought is flawed because, whenever you think inductively, you are taking a number of observations and using them to formulate some prediction about the future.¹⁴³ The past, though, does not control the future, and so your prediction might not come true. Thus, all inductively reasoned conclusions are suspect.

One of the classic examples of this fallacy is the black swan. For over 1,500 years, it was so widely accepted that a black swan could not exist, that in Europe the term "black swan" was used to refer to things which did not exist.¹⁴⁴ No one would have predicted the discovery of a black swan. Perhaps a light grey or cream-colored swan, but never a jet black one. This belief quickly changed when Dutch explorer Willem de Vlamingh discovered a black swan in 1697 on the west coast of Australia.¹⁴⁵

A more modern example of this fallacy, in a scenario related to the topic of this paper, is the Pension Benefit Guaranty Corporation's ("PBGC") experiences in the late 1990s and early 2000s. The PBGC is a federal agency created by the Employee Retirement Income Security Act of 1974. It was created to perform a role similar to that performed by letters of credit

¹⁴¹ By now you may have noticed that throughout this paper my analysis used the insurance company approach. Note, however, that all of my examples correctly estimated the likelihood of default. If my example said a person had a 10% chance of default; that is the portion of the population which actually defaulted. There was no mispricing due to misestimation of default rates, i.e., there were no black swans. Of course, insurance companies cannot be as prescient when estimating the default risk of real world borrowers.

¹⁴² David Hume, *An Inquiry Concerning Human Understanding* 20 (Eric Steinberg ed., 2d ed., Hackett Publ. Co., 1993) ("When it is asked, *What is the nature of all our reasonings concerning matter of fact?* the proper answer seems to be, that they are founded on the relation of cause and effect. When again it is asked, *What is the foundation of all our reasonings and conclusions concerning that relation?* it may be replied in one word, EXPERIENCE. But if we still carry on our sifting humor, and ask, *What is the foundation of all conclusions from experience?* this implies a new question, which may be of more difficult solution and explication.").

¹⁴³ For a more recent inquiry, see generally Nassim N. Taleb, *The Black Swan: The Impact of the Highly Improbable* (Random House 2007).

¹⁴⁴ Juvenal, *The Satires* 42 (Niall Rudd trans., 2d ed., Oxford U. Press, USA 1999) ("[A] rare bird, as strange to this earth as a black swan.").

¹⁴⁵ At that time, Australia was known as New Holland. Tourism Australia, *About Australia, Australia's History*, <http://www.australia.com/about/history.aspx> (accessed Feb. 17, 2009).

and bond insurance – it guarantees a promised payment. In this case, it was an employer's promise to pay its employees' pension benefits. So if an employer goes bankrupt and its pension plan is so underfunded that it cannot pay everyone's benefits,¹⁴⁶ the PBGC steps in and pays in the employer's place.¹⁴⁷ The PBGC funds its operations by charging pension plans a premium.

In the late 1990s, the PBGC accumulated an opulent surplus. By 2000, it had \$20 billion of assets and only \$10.5 billion of liabilities for a \$9.5 billion surplus.¹⁴⁸ I worked in the pension industry at this time. I remember that some practitioners felt the PBGC was overtaxing pension plans. They felt the premiums were too high and much more than the PBGC needed to fund its guaranty. They had an argument. For example, at that time Ambac, a for-profit company which needed a surplus to maintain shareholder equity, only had \$10 billion in assets against its \$7.6 billion in liabilities.¹⁴⁹ Why, therefore, was a not-for-profit agency accumulating such a large surplus?

Then a "black swan" event occurred. Between 2000 and 2004, companies with underfunded pension plans went bankrupt at an unexpectedly high rate. Not only was the PBGC's seemingly inexhaustible surplus wiped out, but they were now in financial distress. Between 2000 and 2004, the PBGC's liabilities grew from \$10.5 billion to \$61 billion. Their assets only grew from \$20 billion to \$38 billion, leaving them with a \$23 billion deficit.

Of course, the PBGC will weather this storm. Being an arm of the government, it is slowly being legislated back to health. Congress passed the Pension Protection Act of 2006,¹⁵⁰ which forces companies to better fund their pensions. In other words, the government is forcing the borrowers to pay off their debts so the guarantor will not have to. The government also increased the premiums that the PBGC charges to pension plans.

Now imagine what would happen if the PBGC's calamity befell a bond insurer like Ambac. Ambac cannot pass a law forcing its insured borrowers to pay off their loans. More relevant to this section, Ambac

¹⁴⁶ Pension Benefit Guaranty Corporation, *Press & Policymakers, Frequently Asked Questions, Understanding the Financial Condition of the Pension Insurance Program*, <http://www.pbgc.gov/media/key-resources-for-the-press/content/page15247.html> (accessed Feb. 6, 2009) ("PBGC estimates that, measured on a termination basis, total underfunding in single-employer defined benefit plans that PBGC insures was approximately \$225 billion as of December 31, 2006.").

¹⁴⁷ *Id.* ("Most of the [\$225 billion of total underfunding] is in [pension] plans sponsored by healthy companies that should be able to fund promised benefits over time.").

¹⁴⁸ Pension Benefit Guaranty Corp., *Annual Mgmt. Report, Fiscal Year 2007* 76, <http://www.pbgc.gov/docs/2007AMR.pdf> (Nov. 13, 2007).

¹⁴⁹ Ambac, *Annual Report 2000, Financial Peace of Mind* 35, <http://www.Ambac.com/pdfs/Annual/ar00/2000-Ambac.pdf> (Mar. 21, 2001).

¹⁵⁰ Pension Protection Act of 2006, Pub. L. No. 109-280, 120 Stat. 780.

cannot raise premiums for its outstanding guaranties. Remember that bond insurance companies charge one premium up front for the life of the guaranteed loan. If such a string of disastrous defaults hits Ambac, it is fair to say they would no longer exist.¹⁵¹

I know what you are thinking: would not a black swan event equally impact a bank's letters of credit? Not necessarily. The next section explains why bank letters of credit are better able to deal with black swans.

Addendum: The financial crisis of 2008 provided additional examples of black swans. Although a full recapitulation is beyond the scope of this paper, one quote from Joseph J. Cassano, a former AIG executive who is thought to be responsible for taking many of the risks which ultimately led to AIG's near collapse, is particularly apropos. In August of 2007, when asked about these risks, Mr. Cassano responded, "It is hard for us, without being flippant, to even see a scenario within any kind of realm of reason that would see us losing one dollar in any of those transactions."¹⁵²

c. Why Banks Respond More Effectively To Black Swans

What happens if a black swan event happens to a bank's letters of credit? The following is an example showing how banks are better able to respond to black swans. Imagine someone borrows \$100,000, to be paid back in five years, and backs this loan with a bank letter of credit. He then borrows another \$100,000 and backs it with bond insurance. In pricing their guaranties, both the bond insurer and bank estimated a 10% default rate. As is customary, the insurance company provided coverage for the five-year life of the loan. The bank, however, only guaranteed the loan for one year. After a year the borrower will have to take out a new letter of credit.

Then the black swan event occurs. Some event causes their default rate to increase from 10% to 50%. The bank can do two things which the insurance company cannot: increase premiums and catch the borrower before he is completely ruined.

i. Raise Premiums

One solution is for the bank to simply raise the letter of credit fee.

¹⁵¹ Although, we should hope that someone would have bailed them out to the extent necessary to preserve the health of the financial system. This is not unlikely. See e.g. Humberto Sanchez, *Paulson: Treasury Watching Insurers*, 363 *The Bond Buyer* (Jan. 23, 2008) (available at 2008 WLNR 1244895) ("Treasury Secretary Henry Paulson yesterday said the Bush administration has been monitoring the health of municipal bond insurers, but declined to discuss whether it would provide any relief from the turmoil in the industry."); Vikas Bajaj & Gretchen Morgenson, *Banks Study Bailing Out Bond Insurer*, 157 *N.Y. Times* C1 (Dec. 19, 2007). *Addendum:* In the fall of 2008, the treasury bailed out insurer AIG. Edmund L. Andrews, Michael J. de la Merced and Mary Williams Walsh, *Fed's \$85 Billion Loan Rescues Insurer*, *N.Y. Times*, September 16, 2008.

¹⁵² Gretchen Morgenson, *Behind Insurer's Crisis, Blind Eye to a Web of Risk*, *N.Y. Times*, September 27, 2008.

So the bank would tell the borrower that if he wants to renew the letter of credit, he must pay a much higher fee – one commensurate with a 50% default rate. If the borrower agrees, the bank is fine.

But what if the borrower does not agree? Will the bank just cancel the coverage, leaving the lender unprotected? The bank will cancel coverage, but the lender will still be protected. The lender foresaw this event and planned for it. When creating the arrangement, lenders demand that if the letter of credit is not renewed, it must be paid.¹⁵³ So in our example, when the borrower refuses to renew the letter of credit, the bank must pay off the loan. It must pay the lender \$100,000.

So if the bank cannot increase premiums, it has to pay as if there was a default. Does this put the bank in the same position as the insurance company? No, because it has caught the borrower prior to his complete ruin.

ii. Catch the Borrower Before He is Ruined

Borrowers do not immediately fall into bankruptcy. Normally, there is a progression from a healthy financial state to a mediocre financial state and ultimately to bankruptcy. Through annual renewals, the bank can catch the borrower in that middle period and collect from him.

In our example above, say the black swan event happened in year two. That is when the borrower's default rate suddenly climbed from 10% to 50%. At this time, the borrower is in that middle period between financial health and ruin. The bank notices his weakened financial state. When the year ends and the borrower tries to renew the letter of credit, the bank asks for a higher fee. The borrower refuses to renew, so the bank has to pay off the loan. The bank does so and seeks reimbursement from the borrower. Because the borrower is not yet hopelessly ruined, the bank will collect. To add numbers, let us say the bank paid the lender \$100,000 to retire the loan. The bank then attempts to collect this from the borrower, and they settle for \$75,000. If the prior years' letter of credit fee was \$2,000, the bank only lost \$23,000 due to the black swan event.

Now let us see what happens to the bond insurance company. The black swan event happens in year two, but the insurance company is helpless. Over the next few years, they will watch the borrower's situation worsen. By year five, the borrower is hopelessly ruined. He defaults on the loan, and the insurance company pays in his place. The insurance company has to pay \$100,000 to the lender. Like the bank, the insurance company

¹⁵³ Stover, *supra* n. 8, at 31 (“[T]he bond indenture must stipulate that, if a new letter of credit is not obtained, the trustee must use the existing letter to reimburse bondholders who do not wish to hold the debt without the letter of credit support.”).

has a right to recover from the borrower. Unfortunately, by now the borrower is so financially ruined that the insurance company will get nothing.

So the bank, by using the renewal provision to catch the borrower in the middle period, was able to recover \$75,000. The insurance company could not do this. It could not start collections until the fifth year, when the borrower was ruined. The insurance company recovered nothing.

iii. Evidence That Insurance Companies Have Undercharged

A bond insurer is faced with a difficult judgment call when deciding what to charge. What really is the difference between a borrower who deserves a 1% premium from one who deserves a 2% premium? How can they know what level of premium is required to provide a twenty year loan guaranty? What if it is 0.5%? What if it is 3%?

Ultimately, we will not know the adequacy of bond insurance premiums until all the bonds are retired. It may turn out that insurance companies charged too much. However, evidence suggests insurance companies may have undercharged.

For example, bond insurance premiums have fallen steadily from 0.5%-2.0% in the late 1970s, to a range of 0.4%-0.6% by the early 1990s, ending with an overall rate of about 0.4% in 2000.¹⁵⁴ During that time, the bond insurance market has become much more competitive, with many new companies entering the field.¹⁵⁵ Was the drop in premiums due to sound pricing decisions or a desire to undercut the competition?

Bond insurance is also used most often in long-maturity loans.¹⁵⁶ Remember that the longer the term of the loan, the greater the risk of a black swan event.

Finally, I want to offer the words of financial celebrity¹⁵⁷ Warren Buffett. In early 2008, Mr. Buffett started his own bond insurance company. Seeing that existing bond insurers were in a difficult financial state, he offered to assume \$800 billion worth of their guaranties. If he assumed these guaranties, bond insurers would no longer be on the hook.

¹⁵⁴ Justice, *supra* n. 95, at 123.

¹⁵⁵ Some of the key bond insurers, and the date they entered the field: Ambac 1972; MBIA 1973; Financial Guaranty Insurance Co. (FGIC) 1983; Financial Security Assurance (FSA) 1985 (acquired by Dexia in 2000); Capital Markets Assurance Corp. 1987 (acquired by MBIA in 1998); Asset Guaranty Insurance Company 1988 (acquired by Radian Asset Assurance in 2000); Connie Lee Insurance Company 1987 (acquired by Ambac in 1997); American Capital Access Financial Guaranty Corp. 1997; CFGI 2001. In addition, a number of traditional property and casualty insurance companies have entered the field.

¹⁵⁶ *Supra* n. 137; Dwight V. Denison, *An Empirical Examination of the Determinants of Insured Municipal Bond Issues*, 23 Pub. Budgeting Fin. 96, 102 (Spring 2003).

¹⁵⁷ Billionaires 2008, 181 Forbes 80 (Mar. 24, 2008) (available at http://www.forbes.com/2008/03/05/richest-people-billionaires-billionaires08-cx_lk_0305billie_land.html).

Instead, Berkshire Hathaway Assurance Corp.¹⁵⁸ would pay if the underlying loans defaulted. What is interesting about this is what he wanted to charge them to assume these guaranties. He wanted to charge them one-and-a-half times what they originally charged.¹⁵⁹ Thus, Warren Buffett believes they undercharged.

Mr. Buffett also made another interesting claim. Years ago, certain municipalities had insured their debt with traditional bond insurance. They were charged 1% for the insurance. Mr. Buffet claims that these same municipalities are coming to his bond insurer and offering 2% for a second layer of guaranty. So the point is not lost, note that Warren Buffet's guaranty would only pay if both the municipality defaulted, and its original bond insurer defaulted. He is charging 2% for a doubly protected guaranty, when the bond insurers originally only charged 1% for a singly protected guaranty. Thus, there is free market evidence that the original bond insurers' 1% premium was too low.¹⁶⁰

2. Bond Insurance Companies Are Now Involved in Risky Products

Municipal bonds are relatively safe loans. For example, Moody's 2000 bond study¹⁶¹ showed that they have lower default rates than corporate bonds.

¹⁵⁸ Vikas Bajaj, *A Deal Maker with a Hot Hand Opens His Wallet*, 157 N.Y. Times C1 (Dec. 29, 2007).

¹⁵⁹ Interview by CNBC's Squawk Box with Warren Buffett, CEO of Berkshire Hathaway Inc. (Feb. 12, 2008) (Part 1) (available at <http://www.cnbc.com/id/23126179>) ("Warren Buffett: . . . And we offered to take over the liabilities for the whole \$800 billion of these three companies for a premium that would be equal to, essentially, one-and-a-half times the remaining premium left over the life of the bonds.").

¹⁶⁰ Interview by CNBC's Squawk Box with Warren Buffett, CEO of Berkshire Hathaway Inc. (Feb. 12, 2008) (Part 2) (available at <http://www.cnbc.com/id/23129487/site/14081545/>) ("Buffett: . . . as I mentioned the other day, for example, we were paid two percent on a 50 million dollar deal, we were paid a two percent premium, that's a million dollars, and all we did on that was, we backed up the present bond insurer, which is rated triple-A, we backed them up in case they don't pay. So, we're getting a premium of two percent for something they charged originally less than one percent for, and they still have to pay and all we have to do is pay if they don't pay.").

¹⁶¹ Lisa Washburn, *Special Comment: Moody's US Municipal Bond Rating Scale 8* (Richard Helgason ed., Nov. 2002) (available at <http://www.moody.com/cust/content/content.ashx?source=StaticContent/Free%20pages/Credit%20Policy%20Research/documents/current/201700000407258.pdf>).

Moody's 2000 bond study				
Moody's Rating	Percentage of issues defaulting by year 5		Percentage of issues defaulting by year 10	
	Munis	Corporate	Munis	Corporate
Aaa	0.0%	0.1%	0.0%	0.7%
Aa	0.0%	0.3%	0.2%	0.8%
A	0.0%	0.5%	0.0%	1.5%
Baa	0.1%	1.9%	0.3%	4.9%
Ba	1.4%	11.4%	6.0%	21.3%
B	13.5%	30.6%	13.5%	47.4%
Caa-C	15.9%	57.8%	15.9%	76.8%
All ratings	0.1%	6.3%	0.2%	9.8%

However, bond insurers have broadened their operations and now insure more risky promises. It is estimated that 25-30% of their portfolio now consists of riskier products.¹⁶² For example, they started to insure collateralized debt obligations ("CDO"). What are CDOs? Some CDOs are repackaged loans. For example, say a lender lent a total of \$10 million to twenty borrowers. These borrowers are of varying credit risk. He wants to sell these loans. He can use a CDO to achieve this. He first creates or finds an entity, the special purpose vehicle ("SPV"). The SPV then purchases his loans for \$10 million. The SPV will then sell these loans to the public in the form of securities. The public will pay \$10 million for these securities, netting out the SPV's position. So as you can see, the lender sold his loans to the SPV, who then sold them to the public. The borrowers, instead of being liable to the original lender, are now liable to a new lender.

One reason people use CDOs is because it makes it easier to buy and sell loans. Without a CDO, you would have to find a lender, look at his loan portfolio, and pick the ones you wanted to buy. It would be easier if a middleman took all the loans, sorted them by risk,¹⁶³ and made them available to the public in the form of pre-packaged securities. There are numerous other advantages to CDOs, such as diversification.

The CDO described above is known as a "cash" CDO. Another type of CDO is the "synthetic" CDO. The difference is that, while a cash CDO is a repackaged loan, a synthetic CDO is a bet on a loan. Once you

¹⁶² Interview, *supra* n. 159 ("Bogle: Let me just ask you one question on these bond insurers. About 25 to 30 percent of their portfolios are outside of the municipal areas, isn't that correct? Buffett: That's probably correct. They, it's kinda interesting what happened, Jack. It would fit in with some of your theories. They originally started out being pure, municipal bond insurers. And then they sort of did what Mae West said, 'I was Snow White but I drifted.'").

¹⁶³ These risk classifications are called tranches.

purchase a cash CDO, you are entitled to a stream of payments. The borrowers will make payments to the SPV, who will transfer these payments to you. If you purchase a synthetic CDO, the SPV will make the exact same payments as the cash CDO. So if the cash CDO's SPV paid \$100,000 in 2007, the synthetic CDO's SPV also paid \$100,000 in 2007. However, unlike the cash CDO's SPV, the synthetic CDO's SPV did not get these funds from a pool of loans. Rather, it got them from other sources. Generally, it gets them by taking the money you paid it and purchasing derivatives.¹⁶⁴ There are many other kinds of CDOs,¹⁶⁵ and the above was a very brief survey.

As you can see, a lot of CDOs operate like loans – either as repackaged loans, or in the case of synthetics, as mirrors of loans. This is where bond insurance companies stepped in, as guarantors of these “loans.” So are these products riskier than municipal debt? Overall,¹⁶⁶ they seem riskier. For example, some CDOs were repackaged or synthetic subprime loans, causing the bond insurers who backed them to be exposed to the 2008 subprime crisis.¹⁶⁷ Mr. Buffett referred to the bond insurers' move into these risky products by quoting Mae West's famous line, “I was Snow White but I drifted.”¹⁶⁸ One Goldman Sachs analysis recently proposed the possibility of CDOs shutting down bond insurers.¹⁶⁹

If you have listened to the news lately, it may seem odd that I am

¹⁶⁴ Michael S. Gibson, *Understanding the Risk of Synthetic CDO's 1*, <http://www.federalreserve.gov/pubs/FEDS/2004/200436/200436pap.pdf> (updated July 2004).

¹⁶⁵ For example, the market value CDO, which resembles a hedge fund. For more information see Douglas J. Lucas, Laurie S. Goodman & Frank J. Fabozzi, *Collateralized Debt Obligations: Structures and Analysis* (2d ed., John Wiley & Sons, Inc. 2006).

¹⁶⁶ Note that CDOs do not have to be riskier than other products. Their risk depends on the risk of the underlying loan.

¹⁶⁷ E.g. Gabrielle Stein, *Ackman Casts First Doubt on Monolines*, 8 *Asset Securitization Rept.* 17, 17 (Jan. 14, 2008) (“But skepticism really began to snowball last May, after Pershing Square Capital Management's Bill Ackman gave a presentation — entitled *Who's Holding the Bag?*— that said financial guarantors, particularly MBIA, took on risky subprime investments without a sufficient amount of reserves to maintain their triple-A ratings.”); *Buddy, could you spare us \$15 billion?*, 386 *Economist* 69, 69 (Jan. 26, 2008) (“Though themselves no giants, monolines have guaranteed a whopping \$2.4 trillion of outstanding debt. The two largest, MBIA and Ambac, cut their teeth ‘wrapping’ municipal bonds, in effect, renting their AAA rating to the securities for a fee. For a long time this business, though staid, was nicely profitable. But, as competition grew, the monolines—with two honourable exceptions, FSA and Assured Guaranty—were seduced by the higher returns of structured finance, especially the stuff involving subprime mortgages (see table). As mortgage delinquencies rose, so did paper losses. Ambac and MBIA wrote assets down by a combined \$8.5 billion in the past quarter.”).

¹⁶⁸ *Supra* n. 161.

¹⁶⁹ Alistair Barr, *Goldman Analysts Question Bond Insurer Bailout*, <http://www.marketwatch.com/news/story/goldman-analysts-question-benefits-bond/story.aspx?guid=%7B2BC70605-35F2-4A55-A049-8D72A5B5BDF%7D> (Jan. 24, 2008) (“CDOs are complex securities that are partly exposed to subprime mortgages. Some investment banks, like Merrill . . . still have large CDO holdings and have hedged those positions partly by buying guarantees from bond insurers. . . . The Goldman analysts reckon more downgrades are coming. *That makes it likely that companies in the industry will go into ‘run-off,’ which occurs when an insurer stops taking on new risks and slowly shuts down while paying any claims from existing policies*, they said. Bond insurers ‘may struggle to write new business as a double-A guarantor,’ Fotheringham and his colleagues said. ‘Subsequently, we believe a run-off valuation is appropriate.’”(emphasis added)).

pointing out the subprime exposure of bond insurance. Letters of credit are issued by banks. Are banks not the ones with the greatest exposure to subprime products? It seems like every news story talks about how banks lost tens of billions of dollars. So, would not any subprime woes felt by bond insurance companies be equally felt by banks?

You have to realize that many of the banks being discussed are investment banks and not commercial banks. This distinction is important because investment banks do not offer letters of credit.¹⁷⁰ For example, Bear Stearns, Lehman Brothers, Merrill Lynch, and Morgan Stanley, all of whom had large losses on subprime products, are investment banks. The easiest way to distinguish these two is to note that commercial banks accept deposits which are FDIC insured, but investment banks do not. So, for example, if you have \$100,000 in an account at an investment bank like Merrill Lynch, it is not FDIC insured. However, your deposit at a commercial bank, like Citibank, is FDIC insured.¹⁷¹

Moving onto the commercial banks, it is certainly true that they had multi-billion dollar losses on subprime products. However, it is important to compare these losses to the size of the institution. As the chart below shows, subprime losses suffered by bond insurers are proportionally much greater than those suffered by commercial banks. For example, Ambac lost \$5.4 billion, whereas, Citigroup lost \$32 billion. It seems like Citigroup did worse, until you look at the size of the two entities. At the end of 2007, Citigroup had \$2.2 trillion of assets, while Ambac only had \$22 billion of assets. Ambac's subprime losses were 25% of its total assets, while Citigroup's subprime losses were only 1.5% of its assets.

¹⁷⁰ Investment banks can offer letters of credit, in fact any person or entity can. See U.C.C. § 5-102(a)(9). However, in general letters of credit are issued only by commercial banks.

¹⁷¹ While we are on the topic, it should be noted that letters of credit are not FDIC insured. *FDIC v. Philadelphia Gear Corp.*, 476 U.S. 426, 440 (1986). This is not too big of a loss, though, as FDIC insurance only covers a maximum of \$100,000 per depositor. 12 U.S.C § 1821(a)(1)(B) (Since the writing of this article Congress has raised FDIC insurance limits to a maximum of \$250,000 per depositor in 12 U.S.C.S. § 1821(a)(3)(A)(iii) (Lexis 2009).). Loan guaranty letters of credit are generally for much larger sums.

Bond Insurers	Subprime Losses	Assets	Loss as percentage of assets
Ambac Financial Group	\$5.4 bln ¹⁷²	\$22.0 bln ¹⁷³	24.6%
MBIA	\$3.3 bln ¹⁷⁴	\$45.3 bln ¹⁷⁵	7.3%

Commercial Banks	Subprime Losses	Assets	Loss as percentage of assets
Bank of America	\$9.4 bln ¹⁷⁶	\$1,716.0 bln ¹⁷⁷	0.6%
Citigroup	\$32.0 bln ¹⁷⁸	\$2,183.0 bln ¹⁷⁹	1.5%
JP Morgan Chase	\$2.9 bln ¹⁸⁰	\$1,562.0 bln ¹⁸¹	0.2%

Addendum: Between the time this paper was written and its publication, the large investment banks of Bear Stearns and Merrill Lynch were acquired by commercial banks. Another large investment bank, Lehman Brothers, filed for bankruptcy. The two remaining large American investment banks, Goldman Sachs and Morgan Stanley, converted themselves into commercial banks.¹⁸² Washington Mutual, which was organized as a thrift and not a commercial bank, was seized by federal regulators and merged into the commercial bank JP Morgan Chase.¹⁸³ The difference between a commercial bank and a thrift, a.k.a. a savings & loan,

¹⁷² David Bogoslow, *Ambac Tumbles on More Subprime Fallout, The Bond Insurer Joins the Financial Industries' Frenzy to Raise Capital as It Warns of a Fourth-Quarter Loss*, http://www.businessweek.com/investor/content/jan2008/pi20080116_740896.htm (Jan. 16, 2008).

¹⁷³ Ambac, *2007 Quarterly Operating Supplement Q3 '09*, http://www.Ambac.com/pdfs/OperatingSupplements/3q07_OpSup.pdf (accessed Feb. 17, 2009).

¹⁷⁴ Steve Schaefer, *Forbes Market Briefing, Market Mixed on MBIA, Countrywide*, http://www.forbes.com/2008/01/09/briefing-mbia-countrywide-markets-equity-cx_ss_0109markets13_print.html (Jan. 9, 2008).

¹⁷⁵ MBIA Inc., *SEC Filings, Quarterly Filings, Quarterly Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 For the Quarter Ended September 30, 2007* 3, <http://ccbn.10kwizard.com/xml/download.php?repo=tenk&ipage=5659167&format=PDF> (Nov. 9, 2007).

¹⁷⁶ Greg Morcroft, *Goldman's CEO Sees No Big Write-down*, <http://www.marketwatch.com/news/story/goldman-ceo-sees-no-big/story.aspx?guid=%7B4AF9FAF2-B0E2-4ACA-8134-5BBD5FCACFD6%7D> (Nov. 13, 2007).

¹⁷⁷ Bank of America, *2007 Annual Report 2*, http://media.corporate-ir.net/media_files/irol/71/71595/reports/2007_AR.pdf (Mar. 1, 2008).

¹⁷⁸ Dawn Cowie, *Bank Writedowns Reach \$96bn after Citi Latest ¶ 2*, <http://www.efinancialnews.com/assetmanagement/pensionfunds/content/2349568128/printerfriendly> (Jan. 15, 2008).

¹⁷⁹ Citigroup, *Financial Information, Citigroup Financial Snapshot*, <http://www.citigroup.com/citi/fin/snapshot.htm> (accessed Feb. 13, 2009).

¹⁸⁰ Morcroft, *supra* n. 175.

¹⁸¹ JPMorgan Chase & Co., *2007 Annual Report: Building a Strong Foundation*, "Financial Highlights", <http://files.shareholder.com/downloads/ONE/550105074x0x184756/31e544ec-a273-4228-8c2a-8e46127783f8/2007ARComplete.pdf> (Feb. 28, 2008).

¹⁸² Andrew Ross Sorkin and Vikas Bajaj, *Shift for Goldman and Morgan Marks the End of an Era*, N.Y. Times, September 21, 2008.

¹⁸³ Eric Dash and Andrew Ross Sorkin, *Government Seizes WaMu and Sells Some Assets*, N.Y. Times, September 25, 2008.

is that the latter's business is focused more on home mortgages.¹⁸⁴ The thrift business model largely fell out of favor as a result of the 1980s savings & loan crisis, which reduced the number of thrifts by about 50%.¹⁸⁵ In contrast to investment banks and thrifts, as of the date of this publication all of the large commercial banks are still in existence.

3. Bond Insurance Companies Can Raise Legal Defenses Which Banks Cannot

a. Bond Insurance Has a Different Legal History Than Letters of Credit

i. Introduction

One of the most important aspects of a guaranty, obviously, is that it be honored. The lender needs to be assured that when the borrower defaults, the guarantor will pay. But what if the guarantor does not want to pay? What if a bank, which was supposed to pay on the letter of credit, decides not to? What if an insurance company decides not to pay on a bond insurance policy? At this point, the lender will need to get lawyers involved, and in doing so, he will discover that letters of credit are legally different than bond insurance. The next section describes why letters of credit and bond insurance are legally different¹⁸⁶ and explains why courts are more likely to enforce a letter of credit. It closes by giving an example from the Enron events of the early 2000s.

b. Letters of Credit

i. The Bank Can Only Require Documentary Conditions

When deciding whether to pay on a letter of credit, the bank can base their decision only on the existence, or lack thereof, of the required documents. If the required documents are presented to the bank, they must pay.¹⁸⁷ The bank will not investigate the underlying transaction. It is

¹⁸⁴ Office of Thrift Supervision – History, <http://www.ots.treas.gov/?p=History> (last visited January 2, 2009).

¹⁸⁵ Timothy Curry and Lynn Shibus, *The Cost of the Savings and Loan Crisis: Truth and Consequences*, FDIC Banking Review, Vol. 13 No. 2 (2000), at 26, available at http://www.fdic.gov/bank/analytical/banking/2000dec/brv13n2_2.pdf (accessed January 2, 2009).

¹⁸⁶ Aicher, *supra* n. 20, at 907 (“A letter of credit always serves as a guaranty. This does not mean that it is a guaranty. A letter of credit is an identical twin to a guaranty, but the fact that the two things look alike and may be used for the same purpose and are difficult to distinguish one from the other, does not mean that they are the same thing and does not mean that there are no differences, which, however subtle, are of major importance.” (citing Henry Harfield, *Uniform Commercial Code Symposium: Code Treatment of Letters of Credit*, 48 Cornell L.Q. 92, 93 (1962))).

¹⁸⁷ U.C.C. § 5-108(g) (“If an undertaking constituting a letter of credit under Section 5-102(a)(10) contains non-documentary conditions, an issuer shall disregard the non-documentary conditions and treat them as if they were not stated.”); see also *supra* n. 38.

analogous to cashing a check. When you go to a bank to cash a check, the bank does not inquire into the transaction for which the check was written. It simply looks at the check, and as long as the check is good, it will be cashed. The bank must also make this decision quickly, as it is only allowed a few days to review the documents.¹⁸⁸

The documentary conditions rule increases the enforceability of letters of credit because it limits what the beneficiary has to prove. All the beneficiary has to prove is that he provided the bank with the required documents. The fact finder's only question will be the conformity of the documents – in other words, did they possess the required pattern of ink on paper. This is an objective question, and it is easy to predict how a court would rule if confronted with this question. This is unlike a non-documentary condition, which could raise subjective questions of fact on which the fact finder could go either way. Because the bank knows how the case would turn out if they tried to litigate it, they will not bother litigating; they will pay on the letter of credit. Thus, the documents only rule gives letters of credit a predictable enforceability.

Before ending the section, I want to add one cautionary note for the user of letters of credit. There is no limit on the type and number of documents which must be provided to the bank. It may be difficult to collect on the letter of credit, if it requires documents which are difficult to attain. The beneficiary of the letter of credit should make sure that they can meet the document requirements. Note, this can easily be negotiated as the beneficiary and account party, and not the bank, decide what documents are required to collect on the letter of credit.

ii. Independence Principle

The documentary conditions requirement is further strengthened by the independence principle.¹⁸⁹ The independence principle forbids the bank basing its decision to pay on an investigation of the underlying transaction. If the bank bases its decision to pay on an investigation of the underlying transaction, the letter of credit legally becomes a guaranty.¹⁹⁰ This is a

¹⁸⁸ U.C.C. § 5-108(b) (“An issuer has a reasonable time after presentation, but not beyond the end of the seventh business day of the issuer after the day of its receipt of documents: (1) To honor”); UCP 600, *supra* n. 19, at Art. 14 (“[The bank shall have] a maximum of five banking days following the day of presentation to determine if a presentation is complying.”); *see also Bombay Indus.*, 1995 WL 808811 at *2.

¹⁸⁹ *Ward Petroleum Corp. v. FDIC*, 903 F.2d 1297, 1299 (10th Cir. 1990) (“The independence of the letter of credit from the underlying commercial transaction facilitates payment under the credit upon a mere facial examination of documents; it thus makes the letter of credit a unique commercial device which assures prompt payment.”).

¹⁹⁰ A note for clarity, guaranty as used here is a legal term specifying a specific type of contract. Guaranty is also used in this paper with its standard dictionary definition. For example, earlier I called letters of credit guarantees. Using the dictionary definition, letters of credit are guarantees. However, in the legal context, the term “guaranty” means something different. Legally, a letter of credit is not the

problem because banks are not allowed to give guaranties.¹⁹¹ The independence principle is a cherished and supporting pillar, as it allows banks to issue letters of credit without violating the rule against guaranties. If the independence principle were to go away, so would bank letters of credit. Thus, when deciding to pay, banks must be careful to avoid even the perception that their decision was based on a review of the underlying transaction.

iii. Material Fraud Requirement

You are probably thinking that a letter of credit creates opportunity for fraud. For example, say you are a seller, who agrees to deliver wire brushes to the buyer for a sum of money. To make sure you are paid, you ask the buyer to get a bank to guaranty payment. He gets this letter of credit, which states that as long as you provide the bank with the title to the wire brushes and a bill of lading, then the bank will pay you. What would happen if instead of shipping wire brushes, you shipped garbage, such as horsehair, and fraudulently wrote "wire brushes" on the title and bill of lading? These documents look like the required documents, and you present them to the bank. Does the bank still have to pay? The answer is no. Banks can refuse to pay if the beneficiary acts in a materially fraudulent manner. This is the one narrow exception to the independence principle.

What is material fraud? It is a very difficult standard to meet. You need something indisputably fraudulent such as the scenario I described above.¹⁹² In a non-exhaustive survey of successful material fraud cases, I could not find one case where there was any doubt that fraud was being committed.¹⁹³

One other interesting thing to note is that when there is material fraud, it generally turns into a dispute between the bank and the account party. The bank wants to pay on the fraudulent letter of credit, to confirm their reputation for honoring letters of credit. The account party, i.e., the party whose promise is being guaranteed, does not want the bank to pay. This is because once the bank pays it will come after the account party for reimbursement. For example, in *Sztejn*, the lawsuit was between the

same thing as a guaranty. See *Republic Nat. Bank of Dallas v. N.W. Natl. Bank of Ft. Worth*, 578 S.W.2d 109, 114 (Tex. 1978).

¹⁹¹ *Id.* at 113-17 (discussing illegality of bank guaranties, and how to distinguish a letter of credit from a guaranty).

¹⁹² This was the fact pattern in the famous *Sztejn* case. *Sztejn v. J. Henry Schroder Banking Corp.*, 31 N.Y.S.2d 631, 633 (N.Y. Sup. 1941).

¹⁹³ E.g. *United Bank Ltd. v. Cambridge Sporting Goods Corp.*, 41 N.Y.2d 254, 256-58 (N.Y. 1976) (shipment of old, unpadded, ripped and mildewed gloves rather than the agreed upon new gloves constituted fraud justifying an injunction preventing the bank from paying on letter of credit used to pay for the goods); *Philipp Bros., Inc. v. Oil Country Specialists, Ltd.*, 709 S.W.2d 262, 264-65 (Tex. App. 1st Dist. 1986) (when delivered pipe is of such poor quality that it is virtually worthless, then it justifies injunction preventing payment on \$1.5 million letter of credit).

account party, Sztejn, and the bank, J. Henry Schroder Banking Corporation.¹⁹⁴

iv. Letters of Credit Will Be Enforced By Courts

As a result of the three legal principles described above, a bank will honor its letter of credit, either by choice or by force of law. As articulated by Aicher, Cotton, and Khan,

Perhaps the single most dramatic substantive difference between letters of credit and guaranties is the willingness of courts to enforce defenses for the benefit of the guarantor. No such predilection exists in the cases involving letters of credit. Letters of credit by contrast are rather simple. There are no defenses except for three: (i) a non-conforming demand for payment; (ii) forgery; and, (iii) material fraud. The legal underpinnings of the letter of credit are established as a matter of law through the independence principle, not, as in the case of a guaranty, through the contract of guaranty itself. Multiple pages of waivers do not appear in a letter of credit because there are no defenses of note to waive.

The reason why there are no defenses to waive is perhaps because banks promised the result they achieved. Banks wanted the letter of credit to work this way to make the letter of credit a valuable instrument they could sell. As noted above, the original letters of credit were designed to always be drawn upon and paid.¹⁹⁵

c. Guaranties/Sureties/Monoline Insurance

i. The History of These Three Instruments

Guaranties¹⁹⁶ have existed for as long as time.¹⁹⁷ A guaranty is a promise made by a third party to pay for the borrower if the borrower does not pay his debt to the lender. Due to its age, the guaranty has a long history in the courts.

One interesting aspect of guaranties is that a guarantor generally

¹⁹⁴ *Supra* n. 187. See generally e.g. *KMW Intern. v. Chase Manhattan Bank, N.A.*, 606 F.2d 10 (2d Cir. 1979); *Itek Corp. v. First Natl. Bank of Boston*, 511 F.Supp. 1341 (D. Mass. 1981).

¹⁹⁵ Aicher, *supra* n. 20, at 918-19.

¹⁹⁶ *Supra* n. 185.

¹⁹⁷ Aicher, *supra* n. 20, at 973 n. 2 (giving the following example: Duncan II, King of Scotland from 1093-1094, lived as a hostage of the Norman English to guarantee his father's loyalty to William I of England).

does not expect or want to pay. The traditional guaranty was given without any compensation in return and was made only half-heartedly.¹⁹⁸ Even modern guarantors share these sentiments. For example, a parent who co-signs a child's apartment rental does so to get the child a place to live, not because they expect to pay in the child's place. This attitude carried its way into the courts. The courts gave guarantors numerous defenses that they could use to deny payment.

Over time a new type of guarantor developed: the surety. Unlike traditional guaranties that were often entered into for personal reasons and where the guarantor did not expect to pay, the surety was in the business of guaranteeing. These agreements were entered into at arm's-length and were not motivated by personal reasons. Sureties were paid for their guaranty, and they expected to pay. Two modern examples of the surety are bail bonds and construction bonds.

Sureties are subject to different laws than guarantors. For example, a surety is regulated as insurance,¹⁹⁹ whereas guaranties are regulated under contract law. However, with regard to enforceability, sureties and guaranties seem to share the same legal standard. "A discussion of defenses to payment available to a surety is essentially a repetition of the discussion of defenses to payment available to a guarantor."²⁰⁰

Eventually, a new type of surety formed: the financial guaranty insurance company. These are what I have referred to as bond insurers throughout this paper. They issue insurance, which pays if a borrower defaults on his promise to pay. Some of these insurers are called "monolines." This is because some states regulate them by quarantining them from the rest of the insurance industry. For example, in New York,²⁰¹ if a company wants to offer financial guaranty insurance, it cannot offer any other kind of insurance. Such a company is separated from the rest of the insurance industry. It is separated because these products require specialized financial expertise and may be outside the expertise of

¹⁹⁸ *Id.* at 911. "It is poor judgment to co-sign a friend's note, to become responsible for a neighbor's debts. See *Proverbs* 17:18. Do not co-sign another person's note or put up a guarantee for someone else's loan. If you can't pay it, even your bed will be snatched from under you. See *Proverbs* 22:26-27." *Id.* at 973 n. 133 (quoting from the New Living Translation Bible as evidence of the historical attitude towards guaranties).

¹⁹⁹ Aicher, *supra* n. 20, at 920 ("[The surety] did not derive from the banking business, as letters of credit did, nor did it find its roots in the lending of credit to a friend, a son, daughter or a related business, as guaranties did. It arose out of the business of insurance.")

²⁰⁰ *Id.* at 973 n. 140 (citing *Walcutt v. Clevite Corp.*, 191 N.E.2d 894, 897 (N.Y. 1963) (stating a surety is not liable unless the obligor is and may assert the defenses available to the obligor); *Aeschmann v. Presbyterian Hosp.*, 59 N.E. 148, 149 (N.Y. 1901) (same); *U.S. Fid. & Guar. Co. v. Charles*, 31 So. 558, 559 (Ala. 1901) (stating the surety may assert traditional contract defenses applicable to the surety agreement as a contract); *Restatement (Third) of Suretyship and Guaranty* § 5 (1996) (broad expression of the principle that a surety may assert many of the standard contractual defenses)).

²⁰¹ N.Y. Ins. Law § 6902(a)(1) (McKinney 2008) ("A corporation organized for the purpose of transacting financial guaranty insurance may [transact only residual value insurance, surety insurance and credit insurance] . . .").

traditional insurance companies. Another reason is that the regulators appreciate the greater risk of financial guaranty insurance, and they do not want its collapse to harm the rest of the insurance industry.²⁰²

Because monolines are a relatively new type of insurance, they do not have the centuries-old legal precedent that exists for letters of credit, guaranties, and traditional insurance. However, nothing in the monoline statutes makes their policies legally different than other insurance policies. Monolines should be able to use all of the suretyship/guaranty type defenses.²⁰³ Finally, note that not all financial guaranty insurers are regulated as monolines. Some states allow their regular property and casualty insurance companies to provide financial guaranty insurance.²⁰⁴

ii. No Independence Principle or Documentary Conditions Rule

Earlier, we discussed two rules which made letters of credit enforceable: the documentary conditions rule and the independence principle. The documentary conditions rule requires the bank to base their decision to honor solely on the presentation of conforming documents. The independence principle strengthened this rule by stating that the bank should not base their decision to honor on an investigation of the underlying transaction.

Insurance companies, on the other hand, are not subject to these two rules. An insurance company will never simply pay on the presentation of documents. As anyone who has ever dealt with an insurance company knows, it will investigate even trivial claims. It will pay only after a careful investigation of the underlying events. For example, you cannot simply give your auto insurer a document stating that your car requires \$20,000 of repairs and expect them to pay. It will need to investigate the claim before deciding how much to pay. Sometimes, it will wrongfully decide not to pay. There is a sizable plaintiff's bar devoted to litigating against insurance companies who wrongfully deny claims.²⁰⁵

²⁰² Aicher, *supra* n. 20, at 933 ("The fundamental purpose of the NAIC Model Act, as well as the intentions of the legislators in the states that have adopted similar legislation or regulations in California, Connecticut, Florida, Iowa, Maryland, and New York was to limit the possibility that a large financial guaranty insurance loss (for example, a municipal bond issuance of multimillions of dollars) would jeopardize the insurance company's ability to meet its obligations under other lines of insurance." (footnote omitted) (referencing Sidney Brown Austin & Wood, *Client Advisory, Clash of Cultures: Insurance Products as Credit Enhancement Devices* 4, http://www.sidley.com/db30/cgibin/pubs/Mahonia%20Memo_Ken%20Wylie_.pdf (June 2002)).

²⁰³ Aicher, *supra* n. 20, at 938 (citing monoline insurance law and legislative history).

²⁰⁴ As of 2004, forty-four states had foregone the monoline regulations, allowing property and casualty insurance companies to offer financial guaranty insurance. *Id.* at 936. However, some of the most important states, including California and New York, have adopted monoline regulations. *Id.* at 933.

²⁰⁵ E.g. Am. Assn. for Justice, *Press Room, Insurance Industry Called to Account for Malfeasance: Improper Claims Denials in Response to Hurricane Katrina May Lead to Probe*, <https://www.atla.org/pressroom/PressReleases/2006/June28.aspx> (June 28, 2006). ("Legislation adopted by the U.S. House of

As Aicher, Cotton, and Khan state, “Payment against a simple demand and without an independent investigation of the underlying facts, [although] expected from a letter of credit, is not only unheard of, but also foolish in [the insurance] business”²⁰⁶

iii. Numerous Defenses

A detailed explication of the defenses available to guarantors and sureties is beyond the scope of this paper. You can easily fill a large treatise with a description and history of these defenses. Aicher, Cotton, and Khan, however, give a good survey in their paper.²⁰⁷ In summary, sureties and guarantors can raise many defenses that are easier to enforce than the material fraud defense available under letter of credit law.

One reason why this is so, is because of the documentary conditions requirement and the independence principle. Remember that the bank is not even allowed to consider the underlying facts when deciding whether to pay on a letter of credit.²⁰⁸ The bank must base its decision solely on the existence of the required documents. If it bases its decision to pay on the underlying facts, then the letter of credit turns into a guaranty, something banks are not allowed to give.

iv. Difficult to Waive the Defenses

Another reason why the guarantor/surety defenses are so strong is that they are difficult to waive. Although sureties and guaranties generally have the same defenses, this is one area where the two concepts part ways. In judging the enforceability of a waiver of guaranty defenses, the court generally looks at (i) the specificity of the language, (ii) the sophistication of the parties, and (iii) the amount of negotiation prior to the execution of the guaranty agreement. No one factor is dispositive, and courts are free to weigh them as they see fit.²⁰⁹

Theoretically, it is easier to waive surety defenses. Generally, all that is required is an explicit waiver. A minority of jurisdictions allow waiver based on general expressions like “unconditional guaranty” or “absolute guarantee,” while the majority require the specific statement

Representatives on Tuesday requires the Department of Homeland Security to investigate widespread and well-founded reports that the insurance industry has improperly denied claims filed by victims of Hurricane Katrina. ‘It’s a shame the federal government had to take this action,’ said Jon Haber, chief executive officer of the Association of Trial Lawyers of America. ‘This isn’t the first time policyholders who have dutifully paid their premiums for years and years have been stiffed by the insurance industry’”).

²⁰⁶ Aicher, *supra* n. 20, at 922.

²⁰⁷ *Id.* at 912-29.

²⁰⁸ With a very narrow exception for material fraud. *Supra* sec. III.C.3.1).b).iii).

²⁰⁹ Aicher, *supra* n. 20, at 914-15.

“[waiver of] defenses based on suretyship.”²¹⁰ In addition, some defenses may be implicitly waived by the actions of the surety, so it seems relatively easy to waive the surety defense. But note the horizon is not that clear. The Restatement (Third) states that such waivers fall under contract law, and may be thrown out for reasons such as unconscionability or lack of good faith and fair dealing.²¹¹

d. Example – the Enron Letters of Credit Paid; the Bond Insurance Contracts Did Not

As described above, a bank letter of credit is more enforceable than a bond insurance policy. The events of Enron provide a good way to compare the two.

i. Enron's Swaps And Forwards

In the energy industry, swaps and forwards are used as hedges against changes in the market price of energy. For example, say energy currently trades for \$1 per unit. A forward contract could say that Enron will deliver one million units of energy to a counterparty in one year for \$1 per unit. A swap is generally a series of forwards. So a swap agreement may say that Enron will deliver one million units of energy each year, for five years, for \$1 per unit.²¹² In these contracts the parties do not actually deliver the underlying good. Rather, they deliver the amount of money required to purchase the underlying good on the market.

Notice that if the market price of the energy does not change, then Enron neither makes nor loses money. In the forward, Enron will deliver \$1 million to the counterparty (the amount required to purchase one million units of energy on the market) in exchange for \$1 million. So Enron made no money. You see the same result with the swap. But let us say the price of energy goes up to \$2 per unit in one year. On the forward, Enron will have to deliver \$1 million to the counterparty.²¹³ If the price of energy goes down to \$0.50 per unit, then Enron will get \$500,000 from the

²¹⁰ *Restatement (Third) of Suretyship and Guaranty* § 48(1).

²¹¹ *Id.* at cmt. a (“[R]ules concerning unconscionability place limits on the parties’ freedom to contract, and rules concerning good faith and fair dealing place limits on the parties’ freedom to act within the confines of the contract. . . . Whether, however, a particular consent or waiver violates those standards may depend on the content of the consent or waiver and its context.”).

²¹² There are many others kinds of energy swaps. For example, a swap might say that Enron will deliver the energy in exchange for a price determined by some index.

²¹³ Enron was supposed to deliver 1 million units of energy at \$1 per unit. Remember that the parties in a swap do not actually deliver the underlying product; rather, they deliver the amount of money required to purchase that product. Since the market price is now \$2 per unit, Enron will have to deliver \$2 million, so the counterparty can purchase 1 million units. Enron will get back only \$1 million (since Enron agreed to be paid only \$1/unit). The result is that Enron pays the counterparty \$1 million.

counterparty.²¹⁴ The same results with the swap.²¹⁵

As you can see, for any given market price at time of delivery, one of the parties will make money, and the other party will lose an equivalent amount of money. Continuing the example above, what if the price goes up to \$2 six months before the time of delivery? You know that if the price stays at \$2, Enron will have to pay \$1 million. Granted, the market price may drop by the time of delivery, but again, if it stays fixed, Enron will have to pay \$1 million. The counterparty will ask Enron to put up collateral to make sure Enron will be able to pay should the price stay at \$2. This collateral requirement is negotiated when the forward or swap is entered into. The original contract will state that, should the price reach \$2, Enron will have to put up some amount of collateral.

What if the price reaches \$2, but Enron does not put up the required collateral? The counterparty will not leave itself in such a vulnerable spot. At the time the contract is entered into, the counterparty will demand that Enron take out a letter of credit that will supply the required collateral if Enron is unable to meet its obligation. The letter of credit guarantees Enron's promise to put up collateral.

During the collapse of Enron, many of these collateral requirements were triggered. Because Enron did not have the funds to provide the required collateral, the letters of credit had to pay in its place. These letter of credit payments were quite large, estimated to be in excess of a billion dollars in total.²¹⁶ All of these letters of credit were honored.²¹⁷

Some banks did try to avoid payment. For example, Banco Nazionale del Lavoro ("BNL") tried to deny payment on a \$57.5 million letter of credit. BNL argued that one of the conditions for payment required investigation of the underlying transaction. Thus, it turned the letter of credit into an impermissible guaranty, making the letter of credit void. The parties had intended to condition payment on the presentation of a document. This document was to be signed by an officer of the beneficiary and was to state that an early termination date had occurred. However, in the letter of credit, they forgot to mention the presentation of a document – the parties wrote that the letter of credit would be paid if an early termination date occurred. This was a drafting error caused by a poorly

²¹⁴ Enron will deliver \$500,000 so the counterparty can purchase 1 million units of energy on the market. Enron will get back \$1 million (because the counterparty agreed to pay \$1/unit for the energy). The result is that Enron receives \$500,000 from the counterparty.

²¹⁵ Remember, a swap is a series of forwards, so you do the same analysis for a swap as for a forward.

²¹⁶ Carter H. Klein, *The Effects on Letters of Credit of Enron*, 7 *Documentary Credit World* 21, 22 (May 2003).

²¹⁷ *Id.* at 24 ("As far as we know, all draws on these letters of credit . . . have been honored. This is a tribute to the banks involved and shows a fulfillment of the letter of credit function.")

checked amendment to the letter of credit.²¹⁸ Seeing this, New York's trial court quickly dismissed the bank's argument only six months after the lawsuit was filed.²¹⁹ This shows how willing courts are to enforce letters of credit.

Now let us see how the bond insurers behaved when guaranteeing the delivery of energy. Mahonia Natural Gas, Ltd. ("Mahonia") purchased gas and crude oil from Enron. Mahonia paid the full delivery price in advance, delivering \$2 billion to Enron. Notice how this operates like a forward contract because Mahonia has locked in a price for future deliveries of energy. Mahonia received its funds by borrowing from banks, including \$1 billion borrowed from JP Morgan Chase ("Chase"). To secure its position, Mahonia also purchased bond insurance,²²⁰ which was to pay them \$2 billion if Enron failed to deliver the promised energy. It is important to note the insurers had unequivocally waived all surety defenses.²²¹

Enron collapsed and was unable to deliver the energy. When Mahonia asked for payment from the bond insurers, all eleven refused to pay. This led to litigation. In one case, Chase sued the companies on Mahonia's behalf to recover the \$1 billion which Chase had lent Mahonia for the purchase. Despite the fact that the insurers had unequivocally waived all surety defenses, they tried to assert them. They tried to renege on their waiver. They asserted defenses alleging that Enron and Chase had effectively colluded to defraud the insurers. Unlike the aforementioned BNL case, the judge did not quickly rule against the insurance companies. The Southern District of New York threw out the waiver of surety defenses, and allowed the insurers to raise them.²²² As a result, Chase was faced with protracted litigation, forcing it to settle for about sixty cents on the dollar.

As described above, when energy deliveries were guaranteed by letters of credit, the banks paid. When similar deliveries were guaranteed by bond insurers,²²³ the insurers fought payment. The insurers used defenses

²¹⁸ Earlier versions of the letter of credit mentioned the presentation of the document. *Id.* at 22-23.

²¹⁹ *P. Gas & Elec. Co. v. Banca Nazionale del Lavoro SpA*, 2003 WL 25780818 (N.Y. Sup. 2003), *aff'd*, 778 N.Y.S.2d 156 (N.Y. App. Div. 2004).

²²⁰ \$1 billion of bond insurance was purchased from eleven insurance companies: Liberty Mutual Insurance Company, Travelers Casualty and Surety Company, St. Paul Fire and Marine Insurance Company, Continental Casualty Company, National Fire Insurance Company of Hartford, Fireman's Fund Insurance Company, Safeco Insurance Company of America, The Travelers Indemnity Company, Federal Insurance Company, Hartford Fire Insurance Company, and Lumbermen's Mutual Casualty Company. *JPMorgan Chase Bank v. Liberty Mut. Ins. Co.*, 189 F. Supp. 2d 24, 25 (S.D.N.Y. 2002).

²²¹ *Id.* at 27 ("[P]aragraph 7 of each of the Bonds states, in pertinent part: The obligations of each Surety hereunder are absolute and unconditional, irrespective of the value, validity or enforceability of the obligations of [Mahonia] under the [corresponding Contract] or Enron under [its separate guarantees] or any other agreement or instrument referred to therein and, to the fullest extent permitted by applicable law, irrespective of any other circumstance whatsoever that might otherwise constitute a legal or equitable discharge or defense of a surety in its capacity as such." (alteration in original)).

²²² *Id.* at 28.

²²³ Aicher, Cotton, and Khan make the point that neither of these bond insurers were subject to monoline regulation. Rather, they were traditional property and casualty companies. Remember that

that are probably not available to banks,²²⁴ and that banks likely would not attempt to raise if they were available.²²⁵

ii. NEPCO

One of Enron's subsidiaries, NEPCO, was in the business of building power plants. The buyers of these power plants would give NEPCO a large down payment, which NEPCO was supposed to use to construct the plant. This transaction is the equivalent of a loan, in that the purchaser of the power plant is loaning NEPCO money, which NEPCO later repays by delivering a power plant. Letters of credit were used to back these "loans." If NEPCO did not deliver a power plant, the letter of credit would pay the buyers some amount of money, generally their down payment.

Rather than use the funds for construction, NEPCO transferred hundreds of millions of dollars to Enron. NEPCO was unable to complete the power plants, and the purchasers drew on the letters of credit. These letters of credit were issued by major banks, such as Chase and WestDeutsche Landesbank ("WDL"). Despite the bad faith shown by NEPCO and Enron, all of the banks honored the letters of credit, again demonstrating their willingness to pay.²²⁶

One bank, however, attempted to deny payment. The facts are as follows. Enron had secured a \$39 million letter of credit from Bayerische Hypo-und Vereinsbank AG (Hypo Bank) to back NEPCO's construction of a power plant for Green County. Hypo Bank entered into a participation agreement with BNL. Under this participation, BNL would compensate Hypo Bank if the letter of credit was drawn upon. Once NEPCO defaulted, Hypo Bank paid on the letter of credit. Hypo Bank then asked BNL for reimbursement pursuant to the participation agreement. Instead of paying, BNL sued. BNL claimed Hypo Bank should not have paid on the letter of credit. BNL made a number of equitably colorable arguments.²²⁷ Unlike

only six of the forty-four states require financial guaranty insurance companies to function under monoline regulations. The others allow property and casualty insurance companies to provide financial guaranty insurance. The implication is that monoline bond insurers may be more willing to pay on their guarantees - either to protect their reputation, or because they are perceived differently by the courts. Aicher, *supra* n. 20, at 973 n. 205. Aicher restates this position when commenting to a reporter on a similar case. Lisa Howard, *Lawsuit Highlights Guaranty Insurer Cultural Differences*, 106 National Underwriter 30, 30 (August 26, 2002).

²²⁴ *But see* Aicher, *supra* n. 20, at 951 (speculating that a bank may have been able to raise a material fraud defense if this arrangement used letters of credit instead of bond insurance).

²²⁵ *See Szejn*, 31 N.Y.S.2d 631 at 635; *see also KMW Intl.*, 606 F.2d 10; *Itek Corp.*, 511 F. Supp. 1341

²²⁶ Klein, *supra* n. 211, at 24.

²²⁷ *Id.* at 27-29 ("(i) the documents presented to effect the draw did not conform because the draft was not a negotiable sight draft; (ii) Hypo Bank did not act in good faith because it had a loan relationship with an affiliate of the beneficiary; (iii) significantly prior to Enron's Chapter 11 filing, Hypo Bank could have demanded, received and retained cash collateral due to Enron's breaches of covenants in its credit agreement and the falsity of its financial statements; (iv) the construction of the plant for which the letter of credit was posted was virtually completed, so that after Enron's filing for

the Mahonia case, however, the New York State trial court did not accept any of these arguments. The court granted summary judgment against BNL ten months after the case's commencement. NEPCO is an example of a beneficiary who displayed egregiously bad behavior. Despite NEPCO's bad faith, banks honored their letters of credit, either by choice or by compulsion of the court.

e. In a Crisis, Bond Insurers Will Likely Exercise Their Numerous Legal Defenses

Some might argue that it is unfair to judge bond insurers by their behavior in Enron. Enron was the largest bankruptcy in American history and one of the biggest financial scandals in the history of the world. Enron's behavior was so arrant that it even caused the dissolution of its accounting firm, Arthur Andersen, which was one of the top five American accounting firms and had an eighty-eight year history.²²⁸ The argument would be that Enron's behavior was so far outside the norm, and so disgraceful, that the bond insurers were right to raise defenses.

The problem is that any sizeable default will probably be accompanied by a similarly fetid aroma. It is hard to believe that there will ever be a mass default without allegations of improper behavior, finger-pointing, and blame. The test of a guarantor should not be whether it pays when all is good; but rather, its willingness to pay when things go wrong.

Bond insurance is legally different than a letter of credit. Because bond insurers can raise numerous defenses, which are unavailable under letter of credit law, it seems fairly likely that they will do so when asked to make payment for significant defaults.

4. Banks and Insurance Companies Have Different Regulators

a. Government Regulators

Previously, I discussed how courts regulate insurance companies and banks. Generally, courts only get involved when the guarantor decides not to pay and the beneficiaries ask the court to enforce payment. Banks' and insurance companies' day-to-day operations, on the other hand, are regulated by government agencies. So while enforcement of payment is left to the courts, the day-to-day monitoring of reserves and operations are left to other regulators. Effective monitoring of the banks' and insurance

Chapter 11, Hypo Bank should have questioned and investigated the bona fides of the default declaration used by the beneficiary Green Country to effect the draw; (v) Hypo Bank failed to determine if the Green Country draw was fraudulent; and (vi) Hypo Bank failed to promptly file a subrogation claim against NEPCO. To show Hypo Bank's bad faith, BNL's answer states that Hypo Bank turned on it and threatened BNL with exclusion from future loan syndications.”)

²²⁸ See generally Wikipedia, *Enron*, <http://en.wikipedia.org/wiki/Enron> (accessed Feb. 17, 2009).

companies' financial health is crucial to their survival. Without government monitoring, banks and insurance companies may take excessive risks, which could ultimately cause their collapse.

Banks are regulated by state banking agencies or the OCC, depending on whether they have a state or federal charter respectively. In addition, banks which join the Federal Reserve are subject to its regulation. All federal banks have to join the Federal Reserve, but state banks can opt out. State banks which opt out, however, will certainly²²⁹ have to get deposit insurance, and so will be regulated by the FDIC.²³⁰

Unlike banks, insurance companies are not federally regulated. As made clear by the Gramm-Leach-Bliley Act, insurance companies are regulated by the states: the state which charters them, and the states which license their activities.²³¹

b. Comparing the Regulators

So which is the more robust regulator: federal banking regulators or state insurance regulators? A full comparison is beyond the scope of this paper. In fact it, may soon be made moot. On March 31, 2008, Treasury Secretary Henry Paulson proposed²³² sweeping changes to the nation's financial regulatory system. His proposal would end the state's monopoly over insurance regulation by establishing an Office of National Insurance. Thus, banks and insurance companies may soon fall under the same regulatory umbrella.

Secretary Paulson's plan is not expected to pass in its current form. Rather, it is expected to stimulate a year's worth of debate in which some of the nation's foremost experts and policymakers will thoroughly analyze the effectiveness of banking and insurance regulation.²³³ Due to the foregoing preemption, this paper will only present a few points on this topic.

²²⁹ It is hard to see how a bank could be competitive if its deposits are not insured.

²³⁰ A detailed description of the very complex banking regulatory system is beyond the scope of this paper. See generally Jonathan R. Macy, Geoffrey P. Miller & Richard Scott Carnell, *Banking Law and Regulation* (3d ed., Aspen Publishers 2001 & Supp. 2007).

²³¹ Gramm-Leach-Bliley Act, 15 U.S.C. § 6711 ("The insurance activities of any person . . . shall be functionally regulated by the States . . .").

²³² Henry M. Paulson, Jr., Robert K. Steel & David G. Nason, *The Department of the Treasury Blueprint for a Modernized Financial Regulatory Structure 1* (Dept. Treas. 2008) (available at <http://www.treas.gov/press/releases/reports/Blueprint.pdf>).

²³³ Jesse Westbrook, *Bloomberg, Paulson Backs Regulatory Overhaul, Broader Fed Role (Update7)*, Bloomberg, March 31, 2008, <http://www.bloomberg.com/apps/news?pid=20601068&sid=afe.s3jM3rpM&refer=home> (last updated Mar. 31, 2008) ("I doubt that there will be any congressional action this year," Levitt, a director of Bloomberg LP, said in a Bloomberg Radio interview today. "This is an issue that will be with us for weeks and months and probably years before substantial changes are implemented.").

i. Quarantine versus Integration

Remember, under monoline regulations, financial guaranty insurance companies are segregated from the rest of the insurance market.²³⁴ Banks which offer letters of credit are not segregated from the rest of the banking community. It is an interestingly different approach. One regulator quarantines a product so that its default will not harm the rest of the industry. Another regulator has gambled the entire industry on the product. This shows that banking regulators are taking a more hands-on approach²³⁵ to letters of credit, whereas insurance regulators have taken a hands-off approach to bond insurance.²³⁶

Addendum: During the financial crisis of 2008, a large insurer, AIG, was on the verge of collapse until it was rescued by the United States Treasury. As the press investigated the cause of AIG's near collapse, it soon became evident that AIG was insuring financial products. What is odd is that AIG also offers traditional insurance, such as car, fire and other casualty insurance. This begs the question, how did AIG – an insurance company headquartered in a monoline state like New York - get around the monoline regulations? Although that topic is beyond the scope of this paper, it seems that one way they eluded the regulation was by offering the guarantee in the form of a credit default swap.²³⁷ Although economically equivalent to insurance, credit default swaps are not regulated as insurance, because they are categorized as derivatives.²³⁸

ii. Size of the Regulators

Another difference is the size of the regulator. The federal government, due to its sheer size, has far greater resources to monitor and help banks through distress. For example, the Federal Reserve has numerous levers with which to manage the banking system. It can purchase securities from banks, giving them liquidity. It can loan money to banks. It can change the fractional-reserve ratio. It can influence the federal funds

²³⁴ Aicher, *supra* n. 20 at 933.

²³⁵ *But see generally* Joe Peek & Eric S. Rosengren, *Derivatives Activity at Troubled Banks* (Wharton Fin. Instns. Ctr. Working Paper, Nov. 1, 1996) (*available at* <http://fic.wharton.upenn.edu/fic/papers/96/9652.pdf>) (arguing that federal banking examiners do not pay sufficient attention to a bank's off balance sheet activities, such as its letters of credit).

²³⁶ Note that only six states have passed monoline regulations. Other states allow regular property and casualty insurance companies to provide financial guaranty insurance. But these six includes the key states of New York and California. *See supra* n. 199.

²³⁷ Matthew Philips, *The Monster that Ate Wall Street - How 'credit default swaps' — an insurance against bad loans — turned from a smart bet into a killer*, Newsweek, October 6, 2008; Hugh Son, *With Fed's Help, AIG Unloads \$16 Billion in Credit Default Swaps*, Bloomberg News, December 25, 2008.

²³⁸ Mayer Brown, *JSM, Revisited: Credit Default Swaps – Are They Contracts of Insurance?* (October 8, 2008), <http://www.mayerbrown.com/publications/article.asp?id=5694> (accessed January 2, 2009). Mayer Brown, *New York to Start Regulating Certain Types of Credit Default Swaps as Insurance* (September 24, 2008), <http://www.mayerbrown.com/publications/article.asp?id=5609&nid=6> (accessed January 2, 2009).

rate,²³⁹ which strongly influences interest rates in general. It can also set the margin requirements used when investors purchase security on margin. A state insurance regulator does not have the same level of resources or authority.

Addendum: In the fall and winter of 2008, the United States saw one of the biggest regulatory interventions in its history.²⁴⁰

iii. Reserve Requirements

aa. Insurance Reserves

Insurance and banking are also subject to different reserve requirements. Reserves are the amount of money the entity must have on hand to be designated as financially healthy. If reserves drop below required levels, the regulators will step in and take various measures, including placing the entity in conservatorship. The amount of required reserve obviously depends on the level of risk undertaken.

Insurance company reserves are calculated using actuarial²⁴¹ techniques which, although economically coherent, are subject to the black swan risk described previously. When I say they are economically coherent, I mean that the company's actuary can project future cash requirements and show that current reserves are sufficient to meet those requirements. The actuary can show you what will happen in each future year and that everything will work out. The reason there is black swan risk is because when making these projections, the actuary must make assumptions about the future. The actuary is supposed to make the best²⁴² guess possible.

²³⁹ The rate at which banks lend excess reserve to one another. The Federal Reserve Board, *Monetary Policy, Open Market Operations*, <http://www.federalreserve.gov/fomc/fundsrate.htm> (last updated Dec. 16, 2008).

²⁴⁰ Kathleen Pender, *Government bailout hits \$8.5 trillion*, San Francisco Chronicle, November 26, 2008.

²⁴¹ For a general overview of actuarial reserving for financial guaranty insurance, see Michael B. McKnight, *Reserving for Financial Guaranty Product 277*, <http://www.casact.org/pubs/forum/01fforum/01ff255.pdf> (accessed Feb. 10, 2009); James P. McNichols, *Monoline Insurance & Financial Guaranty Reserving 234*, <http://www.casact.org/pubs/forum/03fforum/03ff231.pdf> (accessed Feb. 10, 2009).

²⁴² This is a rigorous process. Council on Professionalism Am. Acad. Actuaries, *Applicability Guidelines for Actuarial Standards of Practice 13-14* (Am. Acad. Actuaries 2004) (available at <http://www.actuary.org/pdf/prof/guide.pdf>). For example, the Applicability Guidelines for Actuarial Standards of Practice states that the following standards should be used when performing cash flow analysis:

- ACTUARIAL STANDARD OF PRACTICE # 9 - DOCUMENTATION AND DISCLOSURE IN PROPERTY AND CASUALTY INSURANCE RATEMAKING, LOSS RESERVING, AND VALUATIONS (1991);
- ACTUARIAL STANDARD OF PRACTICE # 20. DISCOUNTING OF PROPERTY AND CASUALTY LOSS AND LOSS ADJUSTMENT EXPENSE RESERVES (1992);
- ACTUARIAL STANDARD OF PRACTICE # 23. DATA QUALITY (2004);
- ACTUARIAL STANDARD OF PRACTICE # 25. CREDIBILITY PROCEDURES APPLICABLE TO ACCIDENT AND HEALTH, GROUP TERM LIFE, AND PROPERTY/CASUALTY COVERAGES (1996);

Despite the actuary's best efforts, these assumptions could turn out to be wrong due to the black swan effect.

bb. Banking Reserves

Banks, however, use a different method of reserving. Note that liability due to letters of credit do not show up on the bank's balance sheet. This is why they are called an "off-balance-sheet" item. So what is stopping an aggressive bank from taking excessive letter of credit risk? Up until Basel I's implementation, there was not much. Banks were criticized for taking too much off-balance-sheet risk.²⁴³

cc. Basel I

Then in 1988, the Basel²⁴⁴ Committee on Banking Supervision instituted²⁴⁵ a capital requirements rule, commonly known as "Basel I." These capital requirements have been adopted for all FDIC insured banks.²⁴⁶ For each bank, this rule calculates a ratio called the capital ratio; the higher this ratio is, the better.²⁴⁷

The numerator of the ratio is calculated by taking the bank's shareholder equity, and adding in certain other assets.²⁴⁸ The denominator is calculated by adding all of the bank's assets according to the riskiness of the investment. Remember that a bank does not hold all of its assets in risk-free form. Some of the bank's assets are invested in risky products; the riskier the investment, the greater its contribution to the denominator. A

- ACTUARIAL STANDARD OF PRACTICE # 38. USING MODELS OUTSIDE THE ACTUARY'S AREA OF EXPERTISE (PROPERTY AND CASUALTY) (2000);

- ACTUARIAL STANDARD OF PRACTICE # 41. ACTUARIAL COMMUNICATIONS (2002).

See also Actuarial Standards Bd., *Actuarial Standards of Practice (ASOPs)*, <http://www.actuarialstandardsboard.org/asops.asp> (accessed Feb. 19, 2009) (providing additional description of these standards).

²⁴³ Henry D. Gabriel, *Standby Letters Of Credit: Does the Risk Outweigh the Benefits?*, 1988 Colum. Bus. L. Rev. 705, 734 (1988) (arguing that Basel I should be implemented in the United States to mitigate the risks of standby letters of credit).

²⁴⁴ Basle is also an accepted spelling. William W. Streeter, *Is it Basel or Basle? New Standards from the Bank for International Settlement*, 93 Am. Bankers Assn. Banking J. 4 (2001).

²⁴⁵ Bank for Intl. Settlements, *History of the Basel Committee and its Membership*, <http://www.bis.org/bcbshistory.htm> (accessed Feb. 19, 2009).

²⁴⁶ 12 U.S.C. § 1831o(c)(1)(A)(ii). Please note that the implementing regulations are different for banks depending on which federal agency regulates them. The citations below are for National Banks, which are regulated by the Office of the Comptroller of the Currency ("OCC"). The FDIC and Federal Reserve have their own regulations, which are in 12 C.F.R. pt. 325 and 12 C.F.R. pt. 208 respectively. The regulations are generally the same, and follow the same structure. For example, the equivalent of the OCC regulation 12 C.F.R. pt. 3, app. A, which is cited many times below, is 12 C.F.R. pt. 325, app. A (for the FDIC) and 12 C.F.R. pt. 208, app. A (for the Federal Reserve). Keep in mind that not all banks are regulated by all three agencies. For example, a state bank that is FDIC insured, but is not part of the federal reserve system, would be regulated by the FDIC, but not by the OCC or Federal Reserve.

²⁴⁷ See 12 C.F.R. § 6.4(b), for the specific percentages. For example, a total risk based capital ratio of 10% or more will give the bank the highest rating of "well capitalized."

²⁴⁸ *Id.* at pt. 3, app. A, § 2 (providing a calculation of tier 1 and tier 2 capital, which collectively make up the numerator).

larger denominator causes a lower capital ratio. As you can see, all else being equal, a bank which invests in risky assets will have a lower ratio than a bank which invests in safe assets. Thus, the capital ratio is a way of monitoring the riskiness of a bank's investments.

For example, when calculating the denominator, assets invested in United States government bonds are not counted because they have no risk.²⁴⁹ Assets invested in gold are also not counted.²⁵⁰ So investing in these two assets adds nothing to the denominator. Assets invested in a state or local government bond are added at 20% or 50% of face value, depending on whether the bonds are backed by the government's general revenues²⁵¹ or just the revenues of a particular project.²⁵² Assets invested in non-investment grade securities come in at 200% of their value.²⁵³

What goes into the denominator when the bank invests in letters of credit? Note that this may seem like an odd way of describing a letter of credit. How is a letter of credit an investment? Well, when issuing a letter of credit, the bank is making a bet, just like it would when making any other investment. If it must pay on the letter of credit, it loses money on the investment. If it does not make payment, then it gained money on the investment. Another way to view it is to note that once the letter of credit is paid, the account party will immediately be indebted to the bank for the full amount. This loan would then enter the bank's balance sheet on the asset side, as an investment. Letters of credit enter the denominator between 20% and 200% of their face value, depending on the quality of the collateral backing the letter of credit. If a bank issues a letter of credit that will only be paid if the bank gets title to goods and that have an approximate market value equal to the amount of payment, then the letter of credit is added in at 20% of its face value.²⁵⁴ You can see why this makes sense. If the bank gets title to goods when paying on the letter of credit, then there is not much risk for the bank. They lost money on the payment, but they gained by receiving title to goods. This is called a self-collateralizing transaction.

Financial guaranty letters of credit are not self-collateralizing. When a bank pays on a financial guaranty letter of credit, it only gets a right to reimbursement from the defaulting borrower. This could be worth nothing. This is why financial guaranty letters of credit are sometimes called suicide or guillotine letters of credit. Due to their greater risk, financial guaranty letters of credit can enter the denominator at an amount as

²⁴⁹ *Id.* at § 3(a)(1)(iii).

²⁵⁰ *Id.* at § 3(a)(1)(vi).

²⁵¹ *Id.* at § 3(a)(1)(ix); 12 C.F.R. § 1.2(b).

²⁵² *Id.* at pt. 3, app. A, § 3(a)(3)(i).

²⁵³ *Id.* at §§ 3(a)(4)(iii), 4(d)(1).

²⁵⁴ *Id.* at § 3(b)(3)(i).

high as 200% of their face value.²⁵⁵

Now that we understand how banking reserves are calculated, we can compare them with insurance reserves. Earlier, I noted how insurance reserves were coherent. In other words, the actuary can show you what he thinks will happen in each future year, and why the current reserves will be sufficient to meet these events. This is subject to black swan risk, but at least everything fits together.

Banking reserves, on the other hand, do not fit together so nicely. It is not clear what would happen if an actuary projected a bank's cash flows using best guess assumptions. Would everything balance out? Would we see that reserves are too high? Too low? We do not know because the Basel I capital ratio is not calculated using the same level of sophistication as are actuarial reserves. Due to its relative crudeness, Basel I is slowly being replaced by Basel II.

d. Basel II

First published by the Basel Committee in 2004²⁵⁶, the Basel II capital requirements are intended to be a more sophisticated and hopefully²⁵⁷ more accurate measure of a bank's risk. It is expected that Basel II will be implemented by 2015 worldwide. The United States has just very recently²⁵⁸ implemented it for very large banks,²⁵⁹ other banks can opt-in.²⁶⁰

A full survey of the Basel II capital requirements is beyond the scope of this paper. The calculation is similar to the Basel I calculation. You calculate a ratio that must be at least 8%.²⁶¹ The numerator of the ratio is the numerator from Basel I with some adjustments²⁶². The denominator

²⁵⁵ *Id.* at §§ 3(b) (general rule), 4(a)(4)(i) (definition), 4a(8) (definition), 4(b) (general rule for letters of credit), 4(d) (letters of credit backing loans which are either traded, or rated by a nationally recognized statistical rating organization).

²⁵⁶ For a history, see Bank for Intl. Settlements, *Basel II: Revised International Capital Framework*, <http://www.bis.org/publ/bcbsca.htm> (accessed Feb. 8, 2009); Basel Comm. Banking Supervision, *International Convergence of Capital Measurement and Capital Standards: A Revised Framework 5* (Bank Intl. Settlements 2005) (available at <http://www.bis.org/publ/bcbs118.pdf>) (providing the complete report).

²⁵⁷ A sophisticated set of rules are not necessarily more effective. In fact, they may be easier to manipulate. However, initial studies indicate that Basel II has greater capital requirements than did Basel I. William W. Lang, Loretta J. Mester & Todd A. Vermilyea, *Competitive Effects of Basel II on U.S. Bank Credit Card Lending* (Fed. Reserve Bank of Phila. Working Paper No. 07-9, Mar. 2007) (available at <http://www.philadelphiafed.org/files/wps/2007/wp07-9.pdf>); Steven Sloan, *Study Finds Capital Levels Could Rise Under Basel II*, 172 *Am. Banker* (Dec. 6, 2007).

²⁵⁸ Randall S. Kroszner, Speech, *Implementing Basel II in the United States* ¶ 1 (Standard & Poor's Bank Conf., N.Y.C., N.Y., Nov. 13, 2007) (available at <http://www.federalreserve.gov/newsevents/speech/kroszner20071113a.htm>).

²⁵⁹ 12 C.F.R. pt. 3, app. C, § 1(b)(1)(i).

²⁶⁰ *Id.* at § 1(b)(2).

²⁶¹ 12 C.F.R. pt. 3, app. C, § 3(a)(1).

²⁶² For the adjustments, see *id.* at app. B, §§ 11-13.

is calculated very differently than it was under Basel I. The Basel II denominator is made up of two numbers: credit risk weighted assets and operational risk weighted assets.

Operational risk weighted assets is a new number that did not exist in Basel I. It is intended to assess the risk due to events such as:²⁶³

- Internal fraud²⁶⁴ - misappropriation of assets, tax evasion, intentional mismarking of positions, bribery;
- External fraud – theft of information, computer hacking, forgery;
- Employment practices and workplace safety - discrimination, workers compensation, employee health and safety;
- Clients, products, and business practices - market manipulation, antitrust, improper trade, product defects, fiduciary breaches, account churning;
- Damage to physical assets – natural disasters, terrorism, vandalism;
- Business disruption and system failures – utility disruptions, software failures, hardware failures; and,
- Execution, delivery, and process management - data entry errors, accounting errors, failed mandatory reporting, negligent loss of client assets.

The calculation is as follows: the bank's "operational risk quantification system" estimates a distribution of possible losses over a one-year time horizon. You then take the 99.9th percentile of this distribution and subtract certain offsets to get operational risk weighted assets.²⁶⁵

Credit risk weighted assets is a number intended to accomplish the same goal as the Basel I denominator – to include assets in proportion to their risk. Assets are first categorized into four pools:

- Retail exposure - Generally assets which the bank manages on a mass scale, such as auto loans, mortgages, credit cards, and student loans;
- Wholesale exposure - Generally assets managed on an individual basis, such as a loan to a government entity or corporation;
- Equity exposure – Assets which give the bank an ownership interest, e.g., stock; and ,
- Securitization exposure – These are assets which have been split into at least two levels of seniority, one of which the bank owns or guarantees.

²⁶³ Basel Comm., *supra* n. 248, at annex 9.

²⁶⁴ Apropos to this new regulation, a trader working for a French bank, Société Générale, recently lost \$7 billion through computer fraud and falsification of records. Nicola Clark, *French Trader in Custody after \$7 Billion in Losses*, N.Y. Times 6 (Jan. 27, 2008).

²⁶⁵ 12 C.F.R. pt. 3, app. C, § 61-62; *id.* at § 2 (defining "Operational risk exposure").

Although there is currently limited guidance, it seems as if a loan guaranty letter of credit would go into the securitization category.²⁶⁶ It also seems to fit the definition of an off balance sheet wholesale exposure. Depending on which category it is analyzed under, a different method is used to calculate its contribution to the denominator. The detailed calculations are beyond the scope of this paper, but it should be noted that the new calculations rely, to a far greater extent, on empirical analysis of data and on the opinions of rating agencies. You no longer have the fixed, rigid buckets of Basel I. Due to the Basel II changes, banking reserves are moving towards the level of sophistication used in actuarial insurance company reserves.

vi. Conclusion

Overall, it is not clear which industry has the more effective regulator. For the aforementioned reasons, however, you can argue that banks are better regulated. Over the next year, as policymakers debate Secretary Paulson's proposals, we will be presented with expert opinion on the relative merits of banking and insurance regulation.

aa. The backstop – Rating Agencies

Some people might argue that it does not matter how well the government regulates because the only necessary regulators are the rating agencies. If the rating agencies give an insurance company a good rating, there is no need to worry about its health. Unfortunately, this may not be true. In the last section of this paper, I present evidence indicating that rating agencies are not capable of regulating the financial services industry on their own.

Rating agencies give borrowers a letter grade, which depends on their creditworthiness. Borrowers with excellent credit, i.e., those least likely to default, are given the highest grade. As the borrowers default risk increases, their grade decreases. Eventually, the default risk is so high that they are given a non-investment grade, or junk bond rating. Some of the ratings are shown on the following page.²⁶⁷

²⁶⁶ Risk-Based Capital Standards: Advanced Capital Adequacy Framework -- Basel II, 72 Fed. Reg. 69288, 69327 (Dec. 7, 2007) (to be codified in 12 C.F.R. pts. 3, 208, 205, 559, 560, 563, 567) (“[S]ecuritization exposures could include, among other things, asset-backed and mortgage-backed securities; loans, lines of credit, liquidity facilities, and financial standby letters of credit; credit derivatives and guarantees . . .”).

²⁶⁷ Standard & Poor's, *Standard & Poor's Ratings Definitions*, <http://www2.standardandpoors.com/portal/site/sp/en/us/page.article/2,1,1,4,1204843084452.html> (Dec. 1, 2008); Fitch Ratings, *Resource Library, Fitch Ratings Definitions*, http://www.fitchratings.com/corporate/fitchResources.cfm?detail=1&rd_file=ltr (accessed Feb. 6, 2009); Moody's, *Moody's Rating Symbols & Definitions 8*, http://www.moodys.com/cust/content/Content.ashx?source=StaticContent/Free%20Pages/Products%20and%20Services/Downloadable%20Files/Rating_Symbols_Definitions.pdf (Mar. 2007).

	Fitch	Moody's	Standard & Poor's
Investment Grade	AAA - Exceptionally strong	Aaa - Minimal credit risk	AAA - Extremely strong
	AA - Very strong	Aa1, Aa2, Aa3 - Very low credit risk	AA - Very strong
	A - Susceptible to adverse change in circumstance, but still strong	A1, A2, A3 - Low credit risk	A - Susceptible to adverse change in circumstance, but still strong
	BBB - More susceptible to adverse event, but still strong	Baa1, Baa2, Baa3 - May possess certain speculative characteristics	BBB - More susceptible to adverse event, but still strong
Non-Investment Grade	BB - Speculative	Ba1, Ba2, Ba3 - Substantial credit risk	BB - Major uncertainty as to how it could handle an adverse event
	B - Highly speculative	B1, B2, B3 - High credit risk	B - Will likely be impaired by adverse event
	CCC - Very likely to be impaired by adverse event	Caa1, Caa2, Caa3 - Very high credit risk	CCC - Very likely to be impaired by adverse event
	CC - Default probable	Ca - In or very near default, with some prospect of recovery of principal and interest	CC - Highly vulnerable
	C - Generally in bankruptcy but still continuing to pay out on obligations	C - typically in default, with little prospect for recovery of principal or interest	C - Generally in bankruptcy but still continuing to pay out on obligations
	D - In default		D - In default

To function as a guarantor, a bank and an insurance company must have the highest rating.²⁶⁸ There can be no uncertainty as to whether the guarantor is going to pay. So can we say that as long as a bank or an insurance company has the highest rating, there is no need to worry about their financial health?

The answer seems to be no. In a 1992 paper, Merton and Bodie noted how rating agencies can make more profit by copying other raters than they can by making accurate ratings.²⁶⁹ Rating agencies have also been criticized for waiting too long before downgrading a company.²⁷⁰

One of the most startling bits of evidence came from a recent debt

²⁶⁸ E.g. Gilpin, *supra* n. 112, at D7 (“I’m not concerned about it,” said Tom Spalding, manager of the Nuveen Advisory Corporation, the investment management subsidiary of John Nuveen & Company, with \$23.5 billion worth of municipal bonds under management, 15 percent of which are insured. ‘I think all these firms know that if they lose their AAA-rating the game is all over for them. They will do everything to maintain that.’”).

²⁶⁹ Robert C. Merton & Zvi Bodie, *On the Management of Financial Guarantees*, 21 *Fin. Mgt.* 87, 93 (Winter 1992) (“Even with the so-called ‘reputation’ effect, the incentives of the rating agencies can be such that it may be more important to them to produce essentially the same forecasts (ratings) as their competitors than to be accurate in their forecasts. . . . [A] rating agency that produces a correct prediction when its competitors are wrong may stand to gain less than it stands to lose by producing an incorrect prediction when its competitors are right.”) (analogizing to herding behavior studies done by Bengt Holmstrom & Joan Ricart I Costa, *Managerial Incentives and Capital Management*, 101 *Q. J. Econ.* 835 (1986); David S. Scharfstein & Jeremy C. Stein, *Herd Behavior and Investment*, 80 *Am. Econ. Rev.* 465 (1990)).

²⁷⁰ Edward Wyatt, *Credit Agencies Waited Months to Voice Doubt about Enron*, *N.Y. Times C1* (Feb. 8, 2002) (available at 2002 WLNR 4038748).

offering by bond insurer MBIA, one of the largest bond insurers. In late 2007, it had a rating of AAA from Fitch. Fitch threatened to lower the rating unless MBIA raised at least \$1 billion by the end of January 2008. MBIA raised this money by issuing debt. Astonishingly, MBIA had to offer 14% on this debt, an interest rate normally reserved for junk bond offerings.²⁷¹ Obviously, something is wrong: either Fitch is giving MBIA too high a rating, or investors are making a gross error in judging its creditworthiness. Warren Buffett was especially colorful in describing the spectacle when he said, "Well, when a company issues a 14 percent bond when U.S. Treasuries are below 4 percent and it's rated triple-A, we've now seen the cow jumping over the moon."²⁷² It is interesting to note that bond insurer Ambac was given a similar ultimatum by Fitch, refused to comply, and was only downgraded to AA.²⁷³

In another twist, despite MBIA's compliance with Fitch's \$1 billion ultimatum, Fitch changed its mind two months later. Fitch demanded another \$3.8 billion of capital to maintain the AAA rating. This time MBIA did not raise the money. Instead, the events took an amusing turn as MBIA actually asked Fitch to stop rating them!²⁷⁴ Fitch declined the request, but only dropped them to an AA. As you can see, these ratings are far from being an exact science.

IV. CONCLUSION

As described above, there are numerous tangible mechanisms by which a letter of credit can reduce borrowing costs. Although more expensive than bond insurance, a letter of credit is more secure. This is because bond insurance companies are less able to cope with unexpected events, and because banks are more robustly regulated than are bond insurance companies. In addition, bond insurers are less likely to pay on a guaranty because they can raise legal defenses which banks cannot.

²⁷¹ MBIA Inc., *Press Releases, MBIA Announces Successful Closing of its \$1 Billion Surplus Notes Offering; Fitch Reaffirms MBIA's Triple-A Ratings with a Stable Outlook*, <http://investor.mbia.com/phoenix.zhtml?c=88095&p=irol-newsArticle&ID=1097323> (Jan. 16, 2008).

²⁷² Interview by, *supra* n. 158.

²⁷³ Dakin Campell, *Ambac Reports \$3.3B Losses in 4Q: Company Continues to Pursue Capital Plan*, 363 *Bond Buyer* (N.Y.) 1, 7 (Jan. 23, 2008) ("On Friday, Fitch downgraded Ambac Assurance to AA, with a negative watch, after the company said it could not raise the capital required by Feb. 1.").

²⁷⁴ Christine Richard, *Bloomberg, MBIA Loses AAA Insurer Rating From Fitch Over Capital (Update5)*, <http://www.bloomberg.com/apps/news?pid=20601087&sid=aUKrtfm0u4y1&refer=home#> (Apr. 4, 2008).