



Bond Insurance as a Form of Credit Enhancement in California's Municipal Bond Market

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State Treasurer and Chairman**

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To All Interested Parties:

On behalf of the California Debt and Investment Advisory Commission (CDIAC), I am pleased to release the report "Bond Insurance as a Form of Credit Enhancement in California's Municipal Bond Market."

Issuers who are entering the credit enhancement market for the first time or who are infrequent users of bond insurance face the daunting task of navigating a multi-faceted decision-making process. This report provides a useful resource by summarizing the players, process, costs, and benefits of bond insurance. The report also represents a working framework for the bond insurance decision-making process. Finally, the report provides statistics on the bond insurance market.

Reports such as this one, in combination with other information and educational resources, play a critical role in CDIAC's mission to reduce the costs and improve the credit ratings of state and local issues. I welcome your comments and input on this important matter.

Sincerely,

Philip Angelides
State Treasurer and
Chairman, California Debt and
Investment Advisory Commission

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EXECUTIVE SUMMARY

The purchase of credit enhancement can play an important role in the municipal debt issuance process. In 2000, more than half of all California municipal debt was credit enhanced, primarily through bond insurance. The prevalence of bond insurance as a form of credit enhancement points to the need for a resource addressing both costs and benefits that need to be considered in any credit enhancement decision. This report is intended to provide general concepts for public issuers, particularly those who are infrequent participants in the bond market or those who have never used bond insurance before. It will enable an issuer to navigate the decision-making process from start to sale.

Available Types of Credit Enhancement

Two main types of credit enhancement are used most often in municipal bond deals: bond insurance and letters of credit. Bond insurance is an insurance policy that provides a guarantee of payment of scheduled principal and interest over the life of the insured bonds should the issuer default.

Letters of credit (LOCs) are irrevocable commitments typically issued by commercial banks for a given period of time (subject to renewal) that allow trustees or fiscal agents to draw on the letters when necessary to make payments of principal and/or interest on bonds. LOCs are typically used for variable rate bonds and are a declining share of the California credit enhancement market.

The other three types of credit enhancement, used to a much smaller degree than bond insurance and LOCs, are lines of credit, mortgage insurance, and private guarantees. This report focuses on the primary form of credit enhancement currently used in the marketplace – bond insurance.

Costs and Benefits of Bond Insurance

Issuers should compare the cost of obtaining insurance to the benefits derived from using bond insurance. Most costs are paid at the time of the issuance while most benefits accumulate over the life of the bonds. Therefore, it is important that the present value of the savings be greater than the premium charged (together with the present value of any other costs).

The premium cost of purchasing bond insurance varies depending on the market conditions for bonds of different credit quality and the degree of risk perceived by the insurer in adding the bonds to its portfolio. In most cases, the capital charges incurred by the insurer in connection with adding a given transaction to its portfolio also will play a role in the premium charged. There also are other costs, such as for separate insurance policies against hazards, earthquakes, or business interruptions, that must be maintained over the life of the bonds.

Issuers also should estimate the benefits derived from using bond insurance. In determining whether bond insurance is cost-effective, an issuer should look at the interest

rate savings or yield “spread” between an insured and an uninsured bond, as well as any new ongoing costs of compliance with bond insurer requirements.

As part of a decision to purchase bond insurance, the issuer also must consider the marketability of a bond and the role of increased marketability in reducing the yield demanded by investors. A bond’s marketability is affected by its perceived credit risk and liquidity risk. Bond insurance reduces these two forms of risk for the investor; therefore, the ratings and, subsequently, the marketability of the bonds are improved.

The Mechanics of Bond Insurance

Once the decision to consider bond insurance has been made, the next step is to seek a bond insurance company. Ambac, FGIC, FSA, and MBIA are the four major AAA-rated monoline municipal bond insurers in terms of total par value of obligations insured. Each major firm has different areas of expertise. In addition to these predominant insurers, specialty insurers (ACA and AGIC) focus on lower quality, low-rated, or non-rated debt not considered by the four main companies.

To gain an understanding of the strength of a bond insurance company, one can look at the credit rating of that company. For the municipal bond insurance company, a AAA rating reflects a particular kind of financial strength – the ability to pay claims. Rating agencies continually evaluate bond insurers’ claims-paying abilities through detailed analyses of financial resources, operations, and exposures.

Insurers’ underwriting criteria for evaluating credit quality differ by bond type and include economic, financial, socio-political, and structural factors of the issue as well as revenue and financial history, demographics, and the quality of the issuing entity as a whole. All AAA-rated firms subscribe to a “zero loss” or “remote loss” underwriting standard by focusing on insuring securities with a low risk of default. To further insulate against loss, insurers typically set conservative limits on single and aggregate risk and diversify their portfolios by sector and geographical regions.

The actual process of purchasing bond insurance depends on whether an issue is sold through a negotiated or competitive sale. Typically, in a competitive sale, the issuer either decides to buy insurance, makes arrangements to qualify the issue for insurance and then lets the bidders buy it if they choose, or requests bids for both insured and non-insured issues. The investor can also purchase bond insurance once the bonds are sold and the insurance can be tailored to meet the needs of the individual investor.

Framework for Decision-making

Local government officials should consider certain factors when deciding whether to use bond insurance for a financing:

- First, officials should decide which type of credit enhancement best suits the situation.

- Second, issuers should know what the insurers consider when evaluating applicants.
- Third, an issuer should approach the bond insurers.
- Fourth, an issuer should do a cost-benefit analysis to take into account all of the costs and benefits associated with the purchase of bond insurance.
- Lastly, an issuer should determine the most appropriate method of purchasing insurance.

A checklist is included at the end of the report to provide issuers with an abbreviated list of factors to consider.

I. INTRODUCTION

Credit enhancement provides, for a fee, improved credit ratings on bonds and, thereby, lowers the borrowing costs to the issuer. California state and local municipalities issued about half of their debt with some form of credit enhancement in 2000. Debt issued for educational purposes, which formed the largest category of California municipal debt issued that year, was enhanced 49 percent of the time. Of all the issues that were enhanced in 2000, bond insurance was the enhancement tool used most often (almost 85 percent of the time).¹

The use of bond insurance can have drawbacks as well as benefits. As such, the municipal bond issuer must take into account many different factors when making the decision to use this type of credit enhancement. This report is designed as a resource for municipalities contemplating using this tool, addressing both costs and benefits that need to be considered in any credit enhancement decision. It is intended to provide general concepts for public issuers, particularly those who are infrequent participants in the bond market or those who have never used bond insurance before.

It addresses the following topics:

- Available types of credit enhancement
- Costs and benefits of bond insurance
- The mechanics of bond insurance

The report concludes with a framework to assist the issuer's decision making process regarding the use of bond insurance as a credit enhancement tool. The report also includes appendixes regarding bond insurance statistics, descriptions of long-term bond ratings, selected financial information for major bond insurance firms, and a glossary of terms.

¹ Appendix A discusses the historic and current statistics on the use of insurance in both the national and California municipal bond markets.

II. AVAILABLE TYPES OF CREDIT ENHANCEMENT

The most common types of credit enhancement are bond insurance and letters of credit. Less common types include lines of credit, mortgage insurance, and private guarantees. While this section describes the various types of credit enhancement, the remainder of the report focuses on bond insurance.

Bond Insurance

Bond insurance is an insurance policy that provides a guarantee of payment of scheduled principal and interest over the life of the insured bonds should the issuer default. It may be purchased either for the entire issue or for selected maturities. Each guarantee is unconditional and irrevocable and covers 100 percent of interest and principal when due. A bond may be insured in the primary or secondary market. For instance, the issuer or underwriter may purchase insurance when the bond first comes to market (the primary market) or an investor may purchase insurance subsequent to issuance solely on the bond owned by such investor (the secondary market). Besides the basic coverage against payment default due to an issuer's financial problems, bond insurance also shields investors against payment defaults arising from other risks as well, such as natural disasters and environmental hazards. If an issuer of an insured bond defaults, the insurer immediately steps in and makes the scheduled payment. To the extent that an issuer is insured against natural disasters or other "hazard" events, insurance proceeds may be available to prevent the issuer's default, or to repay the bond insurer.

Letter of Credit

A letter of credit (LOC), typically issued by a commercial bank, allows the trustee or fiscal agent to draw on the letter when necessary to make payments of principal and/or interest on the bonds. The issuer agrees to reimburse the bank for such a draw. Generally, the LOC is irrevocable for a specified term, typically one to seven years, after which time it is renewed or replaced with a new LOC. Ordinarily, there are both initial and annual fees for the LOC. LOCs are used most commonly for variable rate bonds (see text box).

LOCs constitute a declining share of the California credit enhancement market. Their

Variable Rate Bonds in Brief

A variable rate issue is a very short-term note that is remarketed periodically and generally may be "put back" at the option of the investor for the issuer to repurchase on demand.

A typical variable rate demand option bond in California, for instance, might bear an interest rate that is reset every week. Such an instrument might have a nominal maturity of twenty years but will be remarketed as seven-day paper. The paper is bought by investors for a seven-day yield and at the end of seven days the paper is remarketed. If a given investor no longer wishes to hold the bonds at that time, it may put the bonds back.

Normally, the remarketing agent finds a new investor during the remarketing period or holds the bonds temporarily until resold. Under certain conditions, however, this process fails, requiring the issuer to pay the prior investor without having a replacement investor.

Unless the issuer has enough liquidity (which is quite rare), it will typically purchase an LOC, so that if the bonds are put back to the issuer and cannot be remarketed, there is a means for purchasing them. These variable rate bonds therefore trade on the credit of the bank issuing the LOC.

decline is the result, in part, of the overall decline of bank creditworthiness and the declining spreads in this sector.

Other Credit Enhancement Instruments

In addition to the above instruments, the following types of credit enhancement are sometimes utilized:

- *Line of credit*: standby obligation of a bank to make payments with respect to debt service on bonds if the issuer fails to do so. It is not as secure from a bankruptcy point of view as an LOC and therefore is not as commonly used. A line of credit is a general balance sheet obligation, as opposed to an LOC, for which actual funds are set aside for the sole benefit of the bondholder.
- *Mortgage insurance*: policy that insures payment of principal and interest by the borrowers in a lending program, such as a single loan program or a multifamily loan program.
- *Private guarantee*: guarantee of the payment of principal and interest by a private entity. An example might be the parent of a corporate borrower that agrees to guarantee the borrower's loan agreement payments.

III. COSTS AND BENEFITS OF BOND INSURANCE

According to the Association of Financial Guaranty Insurers (AFGI), the trade association of the insurers and reinsurers of municipal bonds and asset-backed securities, since the inception of municipal bond insurance in 1971, municipalities saved nearly \$30 billion in interest costs through insurance. AFGI states that in 1999 alone, issuers saved about \$2.7 billion. This savings is due to the fact that an insured issue receives the higher rating of its insurer, which leads to lower financing costs.

Issuers should compare the cost of obtaining the insurance to the savings derived from using bond insurance. It is important to bear in mind that insurance is paid up front, but interest savings accrue over time – thus, the present value of the savings should be greater than the premium charged (together with the present value of any other costs, as discussed below). There are several steps necessary to evaluate the cost savings of a given insurance option.

Costs Associated with Bond Insurance

First, the issuer should take into account the costs associated with using bond insurance including premium costs and costs of meeting insurer requirements.

Premium Costs

According to Standard & Poor's, municipal bond insurance premiums increased 9.8 percent to about 45 basis points in 2000 compared with an average premium of 41 basis points for 1999. Premiums will reflect general market conditions for bonds of different credit quality and the degree of risk perceived by the insurer in adding a particular issuer's bonds to its portfolio; premiums change as relative credit spreads change. It is not uncommon, for example, for land-secured financings to have premiums in excess of 125 basis points, while single digit premiums are not unheard of for certain high profile, strong credit issuers with large deals.

One of the major bond insurers states that the price of its premium is based on the insurer's evaluation of the issuer's credit, the complexity of the transaction (for example, revenue bonds or lease transactions typically require more analysis than general obligation bonds), and market competition. In addition, insurers consider the cost of the capital that they must "charge" to each transaction in order to properly manage their resources and maintain their AAA ratings².

Bond insurance can affect the par amount of a transaction in a variety of ways. The premium typically is paid from bond proceeds, either directly by the issuer or indirectly by the underwriter if insurance is purchased at the underwriter's option in a competitive sale. The premium expense either increases the incremental par issued or reduces net proceeds. However, this incremental impact may be offset if the use of bond insurance can reduce the proceeds needed for capitalized interest or debt service reserves.

² See Appendix B for descriptions of long-term bond ratings issued by the leading municipal rating agencies. For simplicity, this report will use the Fitch and Standard & Poor's convention.

Costs of Meeting Insurer Requirements

Besides premium cost, there are also other costs that must be considered by the issuer. Bond insurers have many requirements that must be met prior to insurance being offered and, once purchased, maintained over the life of the bonds. Such requirements should be taken into account and balanced against the lower interest cost of the bonds when considering bond insurance.

In some cases, the bond insurer may request changes to the underlying bond documents before qualifying the issue for insurance. This creates an added burden on the issuer both in making the changes and complying with the new provisions. Insurer requirements may sometimes include net revenue coverage or additional bonds tests, reserve reinvestment limitations, hazard insurance, earthquake or rental/business interruption insurance, greater capitalized interest, and construction contingencies.

Benefits Associated with Bond Insurance

Next, the issuer should take into account the savings derived from using bond insurance, including interest savings and increased marketability.

Interest Savings

The interest savings arises from the “spread” in yields between an insured and uninsured bond. The savings varies depending on various factors such as the underlying rating and market perception of the given insurer. Some underwriters believe that issuers also should consider the likelihood of the bonds being redeemed prior to maturity as part of the interest savings calculation. Insurers will not return any portion of a premium paid for insured bonds that have been called early. Therefore, issuers should compare the level of savings assuming bonds are called on the first call date.

Interest Savings Example. If an issue is insured, it carries the ratings of the insurer – in most cases AAA ratings. Figure 1 illustrates the average interest rate differentials between AAA-rated insured and natural AAA-rated, AA-rated, A-rated, and BBB-rated general obligation municipal bonds. According to Municipal Market Data, for 2000, insured bonds sold for 1-2 basis points higher than the average AA-rated bond, depending on the maturity, while offering savings for bonds with lower underlying ratings.

Figure 1
Municipal Market General Obligation Yields

Average Yields in 2000

| | AAA (natural) | AAA (insured) | AA | A | BBB |
|------|----------------------|----------------------|-----------|----------|------------|
| 2001 | 4.24 | 4.32 | 4.31 | 4.40 | 4.71 |
| 2006 | 4.69 | 4.80 | 4.78 | 4.91 | 5.29 |
| 2011 | 4.95 | 5.07 | 5.05 | 5.20 | 5.65 |
| 2016 | 5.35 | 5.47 | 5.45 | 5.61 | 6.06 |
| 2021 | 5.58 | 5.71 | 5.69 | 5.84 | 6.29 |
| 2026 | 5.66 | 5.79 | 5.77 | 5.92 | 6.36 |
| 2031 | 5.69 | 5.82 | 5.80 | 5.95 | 6.39 |

Average Spreads for AAA (insured) Bonds in 2000

| | AAA (natural) | AAA (insured) | AA | A | BBB |
|------|----------------------|----------------------|-----------|----------|------------|
| 2001 | -0.08 | N/A | -0.01 | 0.08 | 0.39 |
| 2006 | -0.11 | N/A | -0.02 | 0.11 | 0.49 |
| 2011 | -0.12 | N/A | -0.02 | 0.13 | 0.58 |
| 2016 | -0.12 | N/A | -0.02 | 0.14 | 0.59 |
| 2021 | -0.13 | N/A | -0.02 | 0.13 | 0.58 |
| 2026 | -0.13 | N/A | -0.02 | 0.13 | 0.57 |
| 2031 | -0.13 | N/A | -0.02 | 0.13 | 0.57 |

Source: Municipal Market Data, a Division of Thompson Financial Services Company

Securities that are AAA-rated insured bear higher coupon interest rates than those with a natural AAA rating of their own. This differential reflects the market's perception of somewhat greater credit risk associated with bond insurers relative to highly rated municipalities. The data shows a differential between an average insured and uninsured AAA-rated bond of 8-13 basis points, depending on maturity.

Current evidence suggests that it may not make economic sense to purchase bond insurance when the underlying rating of an issue is AA and better. On the other hand, the differential between the average AAA-rated insured and A-rated uninsured bond in 2000 was 8-13 basis points, depending on the maturity. For example, an average A-rated, 30-year bond would have had a 5.95 percent yield; with insurance, the yield would have been reduced to 5.82 percent, a savings of 13 basis points. Using a simplified illustration, for a \$10 million, 30-year maturity bond, every hundredth of one percent (or one basis point) decrease in interest rate would result in an annual \$10,000 savings. In this example, the issuer would save \$130,000 annually by insuring the bond, all other things being equal.

The differential between an average AAA-rated insured and a BBB-rated uninsured bond in 2000 ranged from 39-57 basis points, depending on maturity. An average BBB-rated 30-year bond would have had a 6.39 percent yield; with insurance, the yield would have been reduced to 5.82 percent, a savings of 57 basis points. Using the example above, the issuer would save \$570,000 annually in interest costs by insuring a \$10 million, 30-year maturity bond. Using these simplified examples, the benefit derived for insuring a BBB-rated bond would have been over four times the benefit for an A-rated bond.³

Increased Marketability

As part of a decision to purchase bond insurance, the issuer must consider factors influencing the “marketability” of the bond, that is, the factors that would influence an investor’s choice to purchase such a bond. Ultimately, increased marketability is desired because of its role in reducing the yield demanded by investors. Yet, the impact still can be considered separately from the yield benefit directly attributable to the change in rating.

For the investor, bond insurance transfers credit risk and liquidity risk from the investor to the insurer. Credit risk is defined as the potential loss from an investment as a consequence of an issuer defaulting on its debt or failing to repay principal and interest to its investors in full or on time. Investors in insured bonds are insulated from credit risk because they can depend on the insurer to make timely payment of scheduled principal and interest.

Bond insurance also reduces liquidity risk. This is the risk that an investor may not be able to sell a security in the secondary market quickly and at competitive prices. For example, if an issuer encounters financial problems and the rating on the security is cut, the market value of these bonds likely will decline. Such a decline in market value could cause secondary market liquidity problems because other investors may not want to assume the risk of purchasing such bonds due to fears of further decline in value. Also, small or infrequent issuers that may be unknown to most municipal investors can purchase bond insurance to improve the liquidity of their securities, thus driving down their interest rates and long-term costs. Investors in insured bonds are insulated from liquidity risk associated with the issuer’s circumstances because the bond’s value relies on the rating and financial condition of the insurer.

In addition, bond insurance mitigates other risks perceived by the market. For instance, investors may be apprehensive of complex security provisions or new, innovative financing products. Bond insurance provides a commonly understood means to evaluate the credit quality of complex financings by transferring the risks associated with these complexities from the investor to the bond insurer. Repayment would be guaranteed irrespective of the unusual structure of the transaction and hence, may increase the marketability of the bonds.

³ It is important to note that this is a point in time comparison. The relative spreads between differently rated securities change over time. The shape of the yield curve (graphical plots of the yield versus maturity) also is not always uniform over time or among differently rated securities. Because of this variation in spreads among different maturities, there are times when it may make sense to insure certain maturities of a bond and not others.

IV. THE MECHANICS OF BOND INSURANCE

The Major Insurers

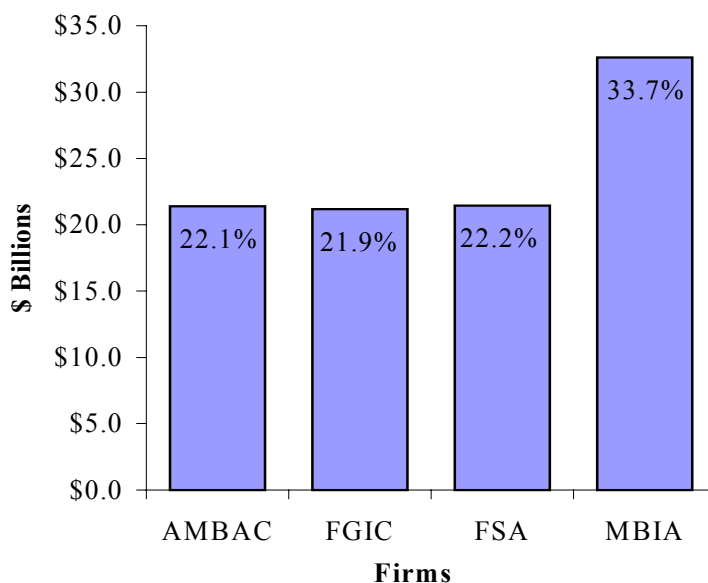
Bond insurers initially were created to guarantee debt issues that had an underlying rating lower than the insurer's credit rating by using highly structured insurance policies. These insurers first appeared in the early 1970's and were typically "monoline" insurers licensed to write a single line of business. These monoline insurers (AAA-rated companies that guarantee that all interest and principal payments on a bond will be paid as scheduled and participate in no other line of the insurance business) were Ambac Assurance Corp. (Ambac) and MBIA Insurance Corp. (MBIA). Monoline insurers were the original insurers because of the strict capital requirements for obtaining a AAA rating. A second wave of monoline insurers, including Capital Markets Assurance Corp, Financial Guaranty Insurance Co. (FGIC), and Financial Security Assurance Inc. (FSA) arrived a decade later in the 1980's.

In time, the number of monoline insurers increased, reflecting the growing acceptance of bond insurance by investors and issuers and the need for additional bond insurance on the largest issues. Reinsurers (insurance companies that assume risk initially assumed by another insurer) came on the scene to diversify the insurance companies that faced losses as well as to increase the amount of primary insurance available in the municipal bond market. FSA further expanded the model, initially by providing reinsurance, and then by credit enhancing structured finance transactions involving pools of assets. Capital Reinsurance and Enhance Reinsurance Company were among a small number of monoline reinsurers created around the same time to provide primary insurers with the additional secondary market liquidity they needed to serve the burgeoning demand for insured bonds.

Bond insurers can be differentiated by looking at, among other things, the par amount of insurance written, exposure, assets, and capital adequacy. This report uses the Standard & Poor's capital adequacy model that projects financial results under stressful economic circumstances. The result of this model is the margin of safety that relates total claims-paying resources to losses. For example, a margin of safety of 1.25x signifies that the company has the ability to pay expected losses one and one-quarter times over. The minimum margin of safety for AAA-rated bond insurers is 1.25x. The minimums for AA and A-rated insurers are 1.0x and 0.8x, respectively. Appendix C displays selected financial information on the four major municipal bond insurance firms and the issue type specializations for each of these firms.

Figure 2 shows the four largest AAA-rated insurers in terms of the dollar value of 2000 municipal gross par written. MBIA, a 100 percent publicly held company, is the largest of the insurers, in terms of par written as well as in net par exposure (\$418.4 billion), total assets (\$7.6 billion), and statutory capital (\$4.5 billion). In addition, MBIA has a margin of safety of 1.3-1.4x. MBIA was the market leader in 2000 with 33.7 percent of the new business written. The company concentrates on general obligation, utility, and health care bonds, in that order.

Figure 2
Leading Municipal Bond Insurers in 2000
(Firms' Par Written and Percent of Total Par Written)



Source: Standard & Poor's Bond Insurance Book 2000

The second largest bond insurance firm is Ambac (also 100 percent publicly owned) with \$276.3 billion in par exposure, \$4.5 billion in total assets, \$2.7 billion in statutory capital, and a 1.3-1.4x margin of safety. Ambac had a 22.1 percent market penetration in 2000. Ambac's three main issue areas are general obligation, other miscellaneous, and utility issues.

FSA is the third largest insurer, with \$154 billion in par exposure, \$2.2 billion in total assets, \$1.4 billion in statutory capital, and a 1.5-1.6x margin of safety. FSA had a 22.2 percent market share in 2000. In 2000, FSA had a positive loss expense. This could be due to the fact that the reserves set up to pay for defaults were partially or wholly recovered. FSA concentrates on general obligation, tax-backed, and utility issues. In July 2000, this company was acquired by Dexia, one of the 25 largest banking groups in Europe. The firm reports that, under Dexia, FSA will operate much the same with no changes in management, risk underwriting or portfolio objectives.

FGIC (a wholly owned subsidiary of G.E. Capital) is the smallest of the four major monoline bond insurance firms, with \$150.6 billion in par exposure, \$2.7 billion in total assets, \$1.9 billion in statutory capital, and a 1.5-1.6x margin of safety. FGIC had a 21.9 percent market penetration in 2000. Like FSA, and for the same reason, FGIC had a positive loss expense in 2000. This firm is unique among the principal municipal bond insurers in that it concentrates almost exclusively on the safest sectors of the municipal bond market - general obligation, utility, and tax-backed bonds. Over half of its business

in 2000 was general obligation bonds. FGIC, by policy, does not insure some of the most prevalent types of debt issued in California – notably certificates of participation, lease revenue bonds, and Mello-Roos bonds.

The two largest specialty players in the municipal bond insurance market are American Capital Access (ACA), which is A-rated⁴, and Asset Guaranty Insurance Co. (AGIC), which is AA-rated. These two companies have been insuring lower quality, low-rated or non-rated debt not considered by the four main companies. Of course, because of their relative lower ratings, their ability to lower borrowing costs is diminished. ACA has \$5.4 billion in par exposure, \$185.3 million in total assets, \$84 million in statutory capital, and a 0.8-0.9x margin of safety. It has yet to post a profit because of its youth (ACA commenced operations in 1997 as the sole dedicated provider of A-rated credit enhancement for underserved segments of the municipal bond market). AGIC has \$8.4 billion in par exposure, \$327.6 million in total assets, \$135.4 million in statutory capital, and a 1.0-1.1x margin of safety. This company has had significant growth in the last few years. AGIC, which was founded in 1988 as an insurer and reinsurer of financial guaranty insurance and other credit-related insurance lines, has posted a profit in the past but had a net loss in 2000 due to underwriting losses.

Bond Insurer Ratings

Rating agencies such as Moody's, Standard & Poor's, and Fitch play a crucial role in the bond insurance industry by providing a level of confidence to investors that the insured rating of a security is sound and backed by the required strength and conservative underwriting standards. For a municipal bond insurance company, a AAA rating reflects a particular kind of financial strength – the ability to pay claims. Rating agencies continually evaluate bond insurers' claims-paying abilities through detailed analyses of financial resources, operations, and exposures and publish regular reports on each insurer.

According to Standard & Poor's, its rating methodology for bond insurers addresses many of the same factors involved in any insurance company's financial strength rating. However, the criteria developed for bond insurers have been tailored to the unique aspects of the financial guarantee business and differ in several important respects. One major difference compared with other insurance products is the expectation that only minimal losses will occur in a normal operating environment. It is assumed that insurers only take on liabilities judged to have minimal loss potential, except under extreme economic conditions.

Among the key indicators Standard & Poor's evaluates before assigning a AAA rating to a bond insurer are the following: ownership, management, underwriting, capital adequacy, single risk (the exposure a company has to any single issue), corporate capital guidelines, reinsurance, financial performance, and legal strength of the insurance policy.

⁴ In January 2001, Standard & Poor's and Fitch had both placed ACA on CreditWatch and Rating Watch, respectively, because the bond insurer had failed to raise \$45 million in additional capital required. This could have led to the downgrading of the firm to a below investment-grade level, thus rendering it impossible to continue to insure bonds. In February 2001, ACA received a capital infusion from investors and the rating agencies affirmed the company's A rating shortly thereafter.

The rating agencies require insurers to comply with capital adequacy requirements and a variety of other standards for their insured bond portfolios. For example, the rating agencies analyze how each insurer's portfolio can withstand severe worldwide economic stress. See Appendix C for the results of the Standard & Poor's capital tests for the four major municipal bond insurance firms. As of December 31, 2000, the four leading companies all would be expected to have over \$1 billion in capital at the end of a worldwide depression. Specialty insurers would be expected to have a very small amount of capital remaining.

California Statutory Requirements Influencing Bond Insurance

State law places specific statutory requirements on municipal bond insurers. Specifically, California Insurance Code includes the following:

- 1) Section 12108(c) requires the total contingency reserve for municipal bond insurers to be the greater of 50 percent of premiums written or 0.8 percent of principal outstanding;
- 2) Section 12108(e) allows the use of reinsurance to reduce the insurer's required reserves to the extent that the reinsurer provides these reserves;
- 3) Section 12114 requires that at least 95 percent of outstanding total net liability be of investment grade;
- 4) Section 12115 limits the loss exposure for companies insuring municipal obligation bonds and special revenue bonds by:
 - a) Capping the insured average debt service with respect to any one entity and backed by a single revenue source at 10 percent of the aggregate of the insurance company's capital, surplus and contingency reserve.
 - b) Capping the unpaid principal issued by a single entity and backed by a single revenue source at 75 percent of the aggregate of the insurance company's capital, surplus and contingency reserve.

Bond insurers use these regulatory requirements as factors in determining whether or not to extend a financial guarantee to an issuer in California. An issuer may be determined to have excellent credit quality but because state law requires, for instance, that the insurer cannot have more than 10 percent of its capital locked into one entity, the insurer may have to disqualify the issue for insurance. The issue could still qualify if the insurer cedes to a reinsurer, which is allowed by state law, to reduce its exposure to loss.

The Insurers' Underwriting Criteria

As discussed above, rating agencies look at claims-paying ability when rating an insurer. According to AFGI, to safeguard their ratings, and thus the ratings of insured obligations, and to protect the interest of insured bond investors who rely on the insurer's claims-paying ability, bond insurers focus on insuring securities with a low risk of default. In

fact, all AAA-rated insurers subscribe to a “zero loss” or “remote loss” underwriting standard. For the AAA-rated insurers, over 95 percent of obligations insured are rated investment grade before insurance is provided. In practice, over 75 percent of the municipal business for three of the four major bond insurance firms received underlying ratings of A and above in 2000. Ambac had about 69 percent of its insured portfolio receiving ratings of A and above. For the most conservative firm, FGIC, about 84 percent of its municipal business receiving underlying ratings of A and above. By adhering to these high standards, and focusing on credits with low risk of default, the AAA-rated insurers can minimize their claims experience.

The insurers translate the remote loss standard to the level of the individual deal. The insurers’ underwriting criteria for evaluating credit quality differ by bond type and include economic, financial, managerial, socio-political, and structural factors of the issue as well as revenue and financial history, demographics, and the quality of management of the entity as a whole. In addition, insurers require issuers to structure transactions with credit protections and other rights and remedies designed to mitigate loss and to eliminate interest rate, currency, and other non-credit risks.

Insurers also set conservative limits on single and aggregate risk and diversify their portfolios by sector and geographic region (as was discussed above, state law also sets limits on insurer portfolios). Lastly, insurers monitor transactions until maturity, which provides an early warning system to allow the insurer to intervene before significant problems arise.

Rating an Issue

Obligations being considered for insurance are reviewed not only by insurers but also by one or more rating agencies. Many times it makes sense to get an “underlying” rating prior to or while attempting to qualify for bond insurance. Knowing the underlying rating can help in evaluating the costs and benefits of bond insurance. In addition, a high underlying rating (e.g., a rating in the A category) can improve the marketability of an insured bond. But, the converse is also true. An insured bond with a low underlying rating may trade at higher yields than other insured bonds. This may argue for certain issuers who might expect low underlying ratings to forego this step. This option may not be available in some cases, since insurers may require an issuer to get an underlying rating when the underlying credit-worthiness is in doubt. In all cases, an issuer pays for the ratings, although it may be at a lower cost if based solely on the insurer’s ratings, with no underlying ratings issued.

Purchasing Bond Insurance

There are several ways insurance can be included with a bond issue. The option chosen depends on whether an issue is sold through a negotiated or competitive sale. In a negotiated sale (in consultation with its underwriting team), the issuer decides whether or not to insure the issue. Typically, this decision is made just prior to the sale of the bonds, and in many cases on the day of sale, especially if only selected maturities appear cost-effective to insure.

In a competitive sale the issuer decides to either buy bond insurance, make arrangements to qualify the issue for insurance and let the bidders buy it if they choose, or request bids for both insured and non-insured status. If the issue were qualified for purchase of insurance at the bidder's option, the issuer would not pay directly for the bond insurance premium. Instead, the cost of the insurance premium would be reflected in the underwriter's bid. If both insured and non-insured bids were taken, the issuer would opt to insure the offering if the "all-in" costs of the lowest yielding insured bid (including the premium costs) were lower than the costs of the lowest yielding uninsured bid. In some cases, a bidder also might elect to insure only select maturities.

Investors also may purchase bond insurance once the bonds are sold to investors (i.e., secondary market insurance). This can be done even in cases where the issuer has never approached the bond insurers with the transaction. Bond insurance companies have tailored their products to meet the particular needs of investors. For example, they offer policies that cover the bonds only as long as a particular investor holds them or policies that provide coverage until the first call date.

V. FRAMEWORK FOR DECISION-MAKING

Prior sections of this report described the bond insurance marketplace and factors affecting insurer and issuer decisions. The following key points compile these factors into a decision-making framework for local governments considering the use of bond insurance as a credit enhancement tool (they are abbreviated in a checklist format on page 16).

- ❑ **Decide which type of credit enhancement best suits the situation.** The various types of credit enhancement, including bond insurance, letters of credit, lines of credit, mortgage insurance, and private guarantors each have their place. Although most credit enhancement is bond insurance, there may be circumstances when another form may be more efficient. For instance, if the issuer has a pre-existing relationship with a bank and the issue is variable rate or the issuer only needs credit enhancement for a short period of time, then an LOC may be the better option. Similarly, if an issuer can negotiate an arrangement with a private guarantor with cost-effective terms, then a third-party enhancement may be an option.
- ❑ **Know what insurers consider when evaluating applicants.** By knowing some of the insurers' underwriting criteria, the issuer can determine whether the transaction is viable. For instance, all insurers are required by state law to have 95 percent of their liabilities investment grade or higher. The four major AAA-rated firms extend insurance on mostly investment grade or better issues. Specialty firms, however, tend to target low investment grade and high non-investment grade issues. If an issue is rated in this range, it might be beneficial to talk to one or more of the specialty firms.

Insurers look at economic, financial, socio-political, and structural factors of the issue as well as revenue and financial history, demographics, and the quality of the issuing entity as a whole when determining whether to extend bond insurance. Issuers should keep these factors in mind when applying for bond insurance.

- ❑ **Approach the bond insurers.** After examining the different types of credit enhancement and choosing to pursue bond insurance, the issuer must look at the specific insurers to decide which best serves its needs. For instance, an issuer should compare the characteristics of the transaction with the specialties of the various insurers. An issuer can approach an insurer that specializes in the appropriate area or approach a firm that is seeking to get into the area, and might provide a price break. In many cases, an issuer will benefit from obtaining approval and premium quotes from all of the major monoline insurers if the transaction fits its criteria. In other cases, an "exclusive" approach may be beneficial, especially if time is of the essence or the insurer is offering attractive incentives.
- ❑ **Do a cost-benefit analysis.** Issuers should look at the net present value cost savings after taking into account all of the projected costs and savings associated with purchasing bond insurance. The issuer should evaluate the premium costs and costs of meeting insurer requirements compared to the projected interest savings and increased marketability of the bond. This analysis should be done for the issue as a

whole and by specific maturities. On occasion, it may make financial sense to insure only specific maturities of an issue.

- **Determine the appropriate method of purchasing insurance.** Depending on its circumstances, the issuer also may need to decide on the method of purchase. For instance, if the bond sale is to be competitive and the potential benefits of insurance are uncertain, the issuer can rely on a bidder's option or multiple bid approach with appropriate bid parameters to meet its needs. In a negotiated sale, the issuer would decide whether to insure the issue (or portions of it) in close consultation with its underwriters near the time of the pricing. Alternatively, the purchase of bond insurance can be left up to individual investors in the secondary market.

Checklist for Decision-making

Decide which type of credit enhancement best suits the situation

- Bond Insurance
- Letter of Credit
- Line of Credit
- Mortgage Insurance
- Private Guarantee

Consider what the insurers look at when applying for bond insurance

- Underlying rating
- Underwriting criteria
- Limits on single and aggregate risk
- Sector and geographical diversification

Do a cost-benefit analysis to take into account all of the costs and benefits associated with the purchase of bond insurance

- Cost
 - Premium costs
 - Meeting insurer requirements
- Benefit
 - Interest savings
 - Increased marketability

Approach the bond insurers

- Compare characteristics of transaction with specialties of insurers
- Consider approaching all of the insurers if the transaction fits their criteria
- Consider an “exclusive” approach if time is of the essence or the insurer is offering attractive incentives.

Determine the most appropriate method of obtaining insurance

- Negotiated sale
 - Insured
 - Non-insured
- Competitive Sale
 - Buy bond insurance prior to sale
 - Qualify and allow bidders to purchase insurance
 - Request bids for both insured and non-insured bonds

APPENDIX A

HISTORIC AND CURRENT STATISTICS ON THE USE OF INSURANCE IN THE NATIONAL AND CALIFORNIA MUNICIPAL BOND MARKETS

Credit Enhancement in the United States

In 2000, 54.5 percent of the nationwide municipal issues had some form of credit enhancement, representing a slight decline from 1999. Of those enhanced, 72.5 percent were through bond insurance, 13.8 percent through LOCs, 7.3 percent through insured mortgages, and 6.4 percent through other forms of credit enhancement. Figure A-1 illustrates the total dollar volume of bond issues, credit enhanced issues, and the various types of credit enhancements used over the last decade.

Figure A-1
Summary of Bond Issues Nationwide:
Total and Enhanced (\$ billions)
January 1, 1991 to December 31, 2000

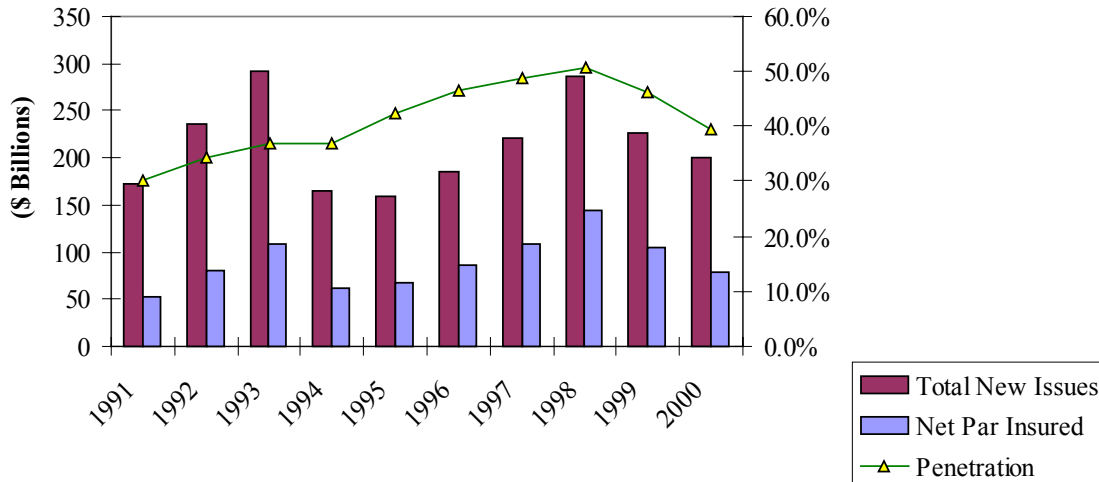
| Calendar Year | Total Bond Par Issued | Total Credit Enhanced ¹ | | Bond Insurance | | Letter of Credit | | Insured Mortgage | |
|---------------|-----------------------|------------------------------------|------|----------------|------|------------------|------|------------------|-----|
| | | | % | % | % | % | % | % | |
| 1991 | 172 | 67 | 39.0 | 52 | 77.6 | 10 | 14.9 | 5 | 7.5 |
| 1992 | 235 | 95 | 40.4 | 81 | 85.3 | 8 | 8.4 | 6 | 6.3 |
| 1993 | 292 | 124 | 42.5 | 108 | 87.1 | 11 | 8.9 | 4 | 3.2 |
| 1994 | 165 | 79 | 47.9 | 62 | 78.5 | 12 | 15.2 | 5 | 6.3 |
| 1995 | 160 | 84 | 52.5 | 69 | 82.1 | 11 | 13.1 | 4 | 4.8 |
| 1996 | 185 | 101 | 54.6 | 86 | 85.1 | 12 | 11.9 | 3 | 3.0 |
| 1997 | 221 | 128 | 57.9 | 107 | 83.6 | 15 | 11.7 | 6 | 4.7 |
| 1998 | 286 | 165 | 57.7 | 145 | 87.9 | 12 | 7.3 | 8 | 4.8 |
| 1999 | 227 | 124 | 54.6 | 105 | 84.7 | 12 | 9.7 | 6 | 4.8 |
| 2000 | 200 | 109 | 54.5 | 79 | 72.5 | 15 | 13.8 | 8 | 7.3 |

¹ Totals may not add due to other types of credit enhancement not included in this table

Source: The Bond Buyer

The trend in municipal insured penetration (the ratio of net par insured to total new issued debt) in the last ten years can be seen in Figure A-2. Penetration has been on a steady increase since 1991, increasing from a low of 30.2 percent in 1991 to a high of 50.7 percent in 1998. In 1999, penetration decreased 4.4 percent points to 46.3 percent. For 2000, the trend has continued, with penetration down to 39.5 percent.

**Figure A-2
National Municipal Insured Penetration
1991-2000**



Source: The Bond Buyer

Credit Enhancement in California

CDIAC categorizes debt enhancement into four subcategories – bond insurance, letters of credit, other third-party enhancement⁵ and state intercept⁶. CDIAC data indicate that the trend has been away from letters of credit and more towards bond insurance in the last decade. Figure A-3 illustrates this point by listing the breakdown of enhanced and non-enhanced debt issuance based on data received by CDIAC through Notices of Sale. For 2000, the ratio of enhanced to total debt issued was 48.5 percent. Of those issues that were enhanced, \$15.5 billion (85.3 percent) were insured, \$1.3 billion (7.3 percent) had LOCs, and another \$1.3 billion (7.4 percent) had other forms of credit enhancement.

⁵ Third-party enhancements include such programs as corporate guarantees or other credit support from parent corporations.

⁶ The State Intercept Program (also known as Credit Plus) allows cities and counties to secure repayment of financial obligations with Vehicle License Fee (VLF) funds. The State pledges to withhold VLF funds in the event of default and to direct VLF funds to the bond trustee. Use of the State Intercept Program has not been reported to CDIAC since 1997.

Figure A-3
Summary of Bond Issues in California:
Credit Enhanced and Non-Credit Enhanced (\$ millions)
January 1, 1985 to December 31, 2000

| Calendar Year | Credit Enhanced | | | | | | | | |
|------------------|-----------------|------|-----------|------|-----------|------|---------------------------|------|--------|
| | Non-Credit | | Letter of | | Bond | | Other | | Total |
| | Enhanced Issues | | Credit | | Insurance | | Enhancements ¹ | | |
| | \$ | % | \$ | % | \$ | % | \$ | % | \$ |
| 1985 | 17,014 | 51.7 | 8,021 | 50.5 | 6,037 | 38.0 | 1,811 | 11.4 | 32,883 |
| 1986 | 20,536 | 84.5 | 940 | 24.9 | 2,124 | 56.2 | 714 | 18.9 | 24,314 |
| 1987 | 11,242 | 64.7 | 1,711 | 27.9 | 3,055 | 49.8 | 1,371 | 22.3 | 17,379 |
| 1988 | 15,060 | 67.0 | 3,331 | 44.9 | 2,658 | 35.8 | 1,437 | 19.4 | 22,486 |
| 1989 | 16,516 | 73.9 | 1,799 | 30.8 | 3,858 | 66.1 | 184 | 3.2 | 22,357 |
| 1990 | 18,101 | 74.9 | 1,993 | 32.8 | 3,825 | 63.0 | 258 | 4.2 | 24,177 |
| 1991 | 24,664 | 70.8 | 2,151 | 21.2 | 7,451 | 73.4 | 556 | 5.5 | 34,822 |
| 1992 | 28,868 | 65.8 | 1,631 | 10.9 | 12,576 | 83.9 | 779 | 5.2 | 43,854 |
| 1993 | 35,022 | 61.8 | 1,580 | 7.3 | 18,848 | 87.0 | 1,226 | 5.7 | 56,676 |
| 1994 | 21,152 | 50.1 | 1,609 | 7.7 | 11,980 | 57.0 | 7,440 | 35.4 | 42,181 |
| 1995 | 9,817 | 36.3 | 5,080 | 29.5 | 11,036 | 64.2 | 1,082 | 6.3 | 27,015 |
| 1996 | 13,052 | 35.5 | 4,398 | 18.6 | 17,657 | 74.6 | 1,616 | 6.8 | 36,723 |
| 1997 | 15,685 | 38.1 | 2,858 | 12.3 | 19,863 | 85.5 | 504 | 2.2 | 38,910 |
| 1998 | 14,548 | 35.3 | 2,225 | 8.4 | 23,426 | 88.0 | 968 | 3.6 | 41,167 |
| 1999 | 15,173 | 41.8 | 1,680 | 8.0 | 18,484 | 87.6 | 948 | 4.5 | 36,285 |
| 2000 | 19,218 | 51.5 | 1,326 | 7.3 | 15,469 | 85.3 | 1,335 | 7.4 | 37,348 |

¹ "Other" enhancements include third-party enhancements and the State Intercept Program.

Source: CDIAC Data Collection Unit

Figure A-4 illustrates the use of credit enhancement in California by purpose. For 2000, the use of credit enhancement varied by purpose group from a high of 82.1 percent for the "other" category to a low of 21 percent for commercial and industrial development. The largest category of municipal debt in California, education financing, was enhanced 50.9 percent of the time in 2000.

Figure A-4
Summary of Bond Issues in California:
Credit Enhancement as a Share of Par Amount Issued (\$ millions)
January - December, 2000

| Purpose Group Description | Par Amount Issued | Par Amount Enhanced | Enhanced Percent |
|---------------------------------------|------------------------------|--------------------------------|-----------------------------|
| Education | 12,145 | 6,182 | 50.9 |
| Capital Improvements and Public Works | 10,427 | 5,920 | 56.8 |
| Interim Financing | 6,923 | 2,035 | 29.4 |
| Housing | 5,103 | 2,555 | 50.1 |
| Hospital and Health Care Facilities | 1,170 | 503 | 43.0 |
| Redevelopment | 800 | 611 | 76.4 |
| Commercial and Industrial Development | 518 | 109 | 21.0 |
| Other | 262 | 215 | 82.1 |
| TOTAL | \$37,348 | \$18,130 | 48.5% |

Source: CDIAC Data Collection Unit

APPENDIX B

CREDIT RATING AGENCY LONG-TERM BOND RATINGS

| General Classification | Moody's Ratings Categories ¹ | Standard & Poor's Ratings Categories ¹ | Fitch Ratings Categories ¹ | Description of lowest and highest rating in category |
|---|---|---|---------------------------------------|--|
| <i>Investment Grade:</i> The ratings in this range are generally considered to be of "investment grade." | Aaa | AAA | AAA | AAA/Aaa: Highest quality, smallest degree of investment risk, large and stable margins for payment of debt service. BBB/Baa: Medium grade, adequate security, susceptible somewhat to changing economic conditions and impairment over time. |
| | Aa | AA | AA | |
| | A | A | A | |
| | Baa | BBB | BBB | |
| <i>Below Investment Grade:</i> The ratings in this range are generally considered to be non-investment grade. | Ba | BB | BB | BB/Ba: Speculative, future not well assured, only moderate protection for debt service, adverse economic or financial conditions will likely impair ability to pay. C/D: Lowest class, extremely poor prospects for repayment, in default (D) or in imminent danger of default (C). |
| | B | B | B | |
| | Caa | CCC | CCC | |
| | Ca | CC | CC | |
| | C | C | C | |
| | | D | DDD, DD, D | |

Source: CDIAC Debt Issuance Primer

¹Moody's uses "1, 2, and 3" to show relative standing within the major rating categories ("1" being the highest within a category) while both Standard & Poor's and Fitch use "+" and "-" to show relative standing.

APPENDIX C

SELECTED FINANCIAL INFORMATION FOR MAJOR BOND INSURANCE FIRMS

Figure C-1 shows selected financial information on the four major municipal bond insurance firms for 2000, the latest year for which audited financials are available. The negative losses and loss-adjusted expense for two of the firms is due to the fact that bond insurance firms set up a specific loss reserve to budget for identified losses. If the actual loss is less than expected, this would result in a negative loss expense.

Figure C-1
Major Monoline Bond Insurers
Selected Financial Information (\$ millions)
As of December 31, 2000

| | AMBAC | FGIC | FSA | MBIA |
|---|---------------|---------------|---------------|---------------|
| Net Par Exposure | \$276,252.0 | \$150,624.0 | \$154,019.8 | \$418,443.0 |
| Net Par Written | \$65,303.0 | \$22,661.8 | \$47,794.8 | \$85,260.0 |
| Total Assets | \$4,473.4 | \$2,651.8 | \$2,228.8 | \$7,629.3 |
| Statutory Capital | \$2,735.9 | \$1,913.4 | \$1,436.7 | \$4,505.0 |
| Net Income | \$338.3 | \$168.8 | \$113.8 | \$543.9 |
| Losses and Loss-Adjusted Expense | \$8.6 | (\$0.3) | (\$0.8) | \$24.6 |
| Average Premium Rate | 63 b.p. | 20 b.p. | 36 b.p. | 53 b.p. |
| Margin of Safety | 1.3-1.4 | 1.5-1.6 | 1.5-1.6 | 1.3-1.4 |
| Capital Remaining at End of Depression Test | \$1,700-1,750 | \$1,150-1,200 | \$1,050-1,200 | \$1,950-2,000 |

Source: Standard & Poor's Bond Insurance Book 2001

Figure C-2 shows the issue area specializations for the four major municipal bond insurance firms.

Figure C-2
Major Monoline Bond Insurers
U.S. Domestic Public Finance
Net Par Outstanding by Type of Issue (\$ millions)
As of December 31, 2000

| | AMBAC | | FGIC | | FSA | | MBIA | |
|----------------------------|------------------|-------------|------------------|-------------|-----------------|-------------|------------------|-------------|
| | \$ | % | \$ | % | \$ | % | \$ | % |
| General Obligation | 39,432 | 22 | 70,438 | 52 | 33,219 | 39 | 91,632 | 33 |
| Utility | 28,504 | 16 | 27,416 | 20 | 12,343 | 14 | 44,557 | 16 |
| Tax-backed | 18,268 | 10 | 15,893 | 12 | 18,731 | 22 | 21,936 | 8 |
| Health Care | 17,837 | 10 | 1,484 | 1 | 5,686 | 7 | 37,897 | 14 |
| Transportation | 10,496 | 6 | 15,642 | 11 | 4,078 | 5 | 24,984 | 9 |
| Colleges and Universities | 9,603 | 5 | 3,378 | 2 | 1,105 | 1 | 16,033 | 6 |
| Investor-owned Utilities | 10,560 | 6 | 358 | 0 | 492 | 1 | 7,250 | 3 |
| Housing | 7,146 | 4 | 644 | 0 | 3,993 | 5 | 12,265 | 4 |
| Special Revenue | - | - | - | - | - | - | 11,267 | 4 |
| Other | 38,464 | 21 | 1,398 | 1 | 5,485 | 6 | 8,144 | 3 |
| Net Par Outstanding | \$180,310 | 100% | \$136,651 | 100% | \$85,132 | 100% | \$275,965 | 100% |

Source: Standard & Poor's Bond Insurance Book 2001

APPENDIX D

GLOSSARY OF TERMS

Basis point: A basis point is equal to one hundredth of one percentage point or 0.01 percent. For instance if Bond A is priced at a yield of 6.50 percent and Bond B is priced at 6.60 percent, Bond B yields 10 basis points more than Bond A.

Bond insurance: A bond insurance policy that provides a guarantee of payment of scheduled principal and interest over the life of the insured bonds, should the issuer default.

Call feature: A provision in a bond indenture that allows the issuer the option of paying off an obligation, either partially or in full, before the instrument's date of maturity. The issuer is therefore able to retire expensive debt to take advantage of lower interest rates.

Cede: In the context of the liabilities associated with insurance policies, to pass a portion of the risk exposure and the related premium to a reinsurer.

Certificate of participation (COP): A certificate (which looks much like a bond) representing an undivided interest in the payments made by a public agency pursuant to a financing lease (or an installment purchase agreement).

Competitive sale: The sale of bonds to the bidder presenting the best sealed bid at the time and place specified in a published notice of sale.

Coupon: The periodic interest payment made to the bondholders during the life of the bond.

Credit risk: The risk an issuer will default on its debt, failing to repay principal and interest to its investors, as scheduled.

Gross par written: Total par value of obligations insured, including obligations insured both as a primary insurer and as a reinsurer.

Letter of credit (LOC): Irrevocable commitments directly between the bank and the investors (or trustees) for the bond principal and specified interest of the bank's customer, the issuer.

Line of credit: Standby obligation of a bank to make payments with respect to debt service on bonds if the issuer fails to do so.

Liquidity risk: The risk that an investor may not be able to sell a security in the secondary market quickly and at a competitive price.

Margin of safety: In the context of bond insurance capital adequacy tests, the ratio of depression losses incurred plus statutory capital at the end of a four-year depression divided by depression losses incurred.

Market penetration: Measure of the demand for bond insurance calculated based on the municipal gross par insured by the firm divided by the municipal gross par insured by all firms.

Monoline insurer: An insurer that writes only financial guarantee insurance.

Mortgage insurance: Insures payment of principal and interest by the borrowers in a lending program, such as a single family or multifamily home loan program.

Multiline insurer: An insurer that writes financial guarantee and property/casualty insurance.

Negotiated sale: A sale of bonds, the terms and price of which are negotiated by the issuer, through an exclusive agreement with a previously selected underwriter and/or underwriting syndicate.

Net income: Income after dividends and taxes.

Net par written: Gross par written less par value of obligations ceded to reinsurers.

Net premiums written: Total premiums written minus premiums ceded to reinsurers.

Paper: A short-term debt security.

Par written: Total par value of obligations insured, including obligations insured both as a primary insurer and as a reinsurer.

Premiums written: Total premiums received from all sources including reinsurance assumed from other insurers

Primary market: New securities market.

Private guarantee: Guarantee provided by a private entity such as the parent of a corporate borrower that assures the borrower's loan agreement payments.

Reinsurance: Acceptance by one insurer (the reinsurer) of all or part of the risk and obligations underwritten by another insurer (the ceding insurer).

Reinsurer: An insurance company that assumes risk initially assumed by another insurer.

Remarket: To buy and resell to the public previously-issued bonds that have been or are required to be purchased from the original or subsequent holders of the bonds by the

issuer or another party upon the occurrence of certain events specified in the legal documents.

Secondary market: Market in which an investor purchases a security from another investor rather than the issuer, subsequent to the original issuance in the primary market.

Spread: The difference between two yields, usually stated in terms of the number of basis points.

Statutory capital: The sum of capital and surplus plus contingency reserves.

Underlying rating: Bond rating obtained by examining the “underlying” issue instead of relying upon the credit capacity of the bond insurance company.

Yield: A measure of the income generated by a bond. The amount of interest paid on a bond divided by the price.

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