

**FEDERAL CROP INSURANCE PROGRAM
PROFITABILITY AND EFFECTIVENESS ANALYSIS**

2004 UPDATE

Prepared on behalf of National Crop Insurance Services, Inc.
March 2004

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I. INTRODUCTION

Deloitte & Touche LLP was engaged in 2003 by National Crop Insurance Services, Inc. (“NCIS”) to conduct profitability and effectiveness analysis of the federal Multiple Peril Crop Insurance (“MPCI”) program.¹ This program operates as a public-private partnership between members of NCIS, as direct insurers, and the Federal Crop Insurance Corporation (“FCIC”), as their principal reinsurer. The basic terms of this relationship are set forth in a Standard Reinsurance Agreement (“SRA”) signed by FCIC and each direct insurer. FCIC, a federal governmental agency, is managed by the Risk Management Agency (“RMA”), also an agency within the U.S. Department of Agriculture (“USDA”).

This Report uses aggregate historical data on both the MPCI business and the property and casualty insurance (P&C) business. NCIS assembled the MPCI data used in this report from public sources (USDA/RMA) and from its member companies. It is important to recognize that private sector participants in the MPCI program have two significant revenue sources: (1) administrative and operating (“A&O”) expense subsidies paid by FCIC and (2) their retained shares of underwriting gains under the existing SRA. Private sector participants also have two significant costs associated with their role in the program: (1) expenses and (2) their retained shares of underwriting losses.

Data on the P&C business were obtained from the industry publication Best’s Aggregates & Averages—Property and Casualty (“Best’s A&A”). Data were also obtained from the 1997 and 1999 analyses prepared by PricewaterhouseCoopers LLC (“PwC”). Hereafter, these reports are referred to as the “PwC 1997 Report” and “PwC 1999 Report” respectively. All analyses contained in this Report, including exhibits, are presented using aggregate, historical data and all results have been derived from such data. Results for individual companies writing P&C or MPCI business, therefore, would be expected to vary from the averages and aggregated data contained herein. Appendix A provides descriptions and source information for all of the variables used in this study. The period of our analysis is 1992-2002.

Section II of this report discusses profitability and risk for the MPCI and P&C business. Section III compares expense ratios for the MPCI and P&C businesses. Section IV compares historic differences between A&O reimbursements and MPCI expenses. Section V addresses two key economic provisions of the December 31, 2003 draft of the 2005 SRA distributed by USDA/RMA on its website (<http://www.rma.usda.gov>). Our key findings can be summarized as follows:

¹ This Report was prepared for NCIS to be used by its members solely in evaluating aggregated, historical data and in evaluating the proposed SRA identified in the text. This Report does not express a view with regard to the position that any individual member of NCIS should take in negotiating terms of the proposed SRA.

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- Although there are numerous issues to be considered in conducting any benchmark analysis of MPCCI and P&C profitability, the results in this report show that the MPCCI business has not outperformed the P&C business over the period 1992-2002. (Section II)²
- MPCCI expense-premium ratios are significantly below those of the P&C business. (Section III)
- Under the current SRA, A&O subsidies have been far below actual MPCCI expenses incurred by private insurers. (Section IV)
- If the 25% quota share provision and the excess expense penalty provision proposed by RMA in the December 31, 2003 draft of the 2005 SRA had been in effect throughout the historical period 1992-2002, there would have been a significant adverse impact on MPCCI net income, returns and risk. (Section V)

The remainder of this Report provides a detailed discussion of the analysis supporting each of these key findings.

II. THE MPCCI BUSINESS HAS NO OVERALL ECONOMIC ADVANTAGE OVER THE P&C BUSINESS³

This Section reports pretax net income, historical returns and the degree of risk associated with those returns for the MPCCI and P&C businesses. For the MPCCI business, we measured pretax net income as the sum of Net Underwriting Gain (Loss) and Net Expense Gain (Loss).⁴ For the P&C business, we measured pretax net income as the sum of Net Underwriting Income, Net Investment Income, and Realized Capital Gain (or

² This conclusion is consistent with the PwC 1997 Report (at p. 3) and the PwC 1999 Report (at p. 9), in which it is found that the MPCCI line of business is less profitable and has greater risk than the P&C business. However, as noted in Section II, the approach in this Report differs from the approach in the PwC Reports.

³ An alternative approach to the one employed in this Section would have been to update the comparison of P&C and MPCCI returns and risk contained in the PwC 1997 and 1999 reports. Those analyses were based on survey data for a sample of MPCCI companies for the period 1988-1999. Our analysis primarily relies on publicly available industry level data for the period 1992-2002 for two reasons: (1) the crop insurance program has changed dramatically since the time of the PwC 1999 study, with several of the original companies having since merged or exited the business and (2) results based on the publicly available data are easily verified by all parties. Due to the absence of publicly available data on MPCCI retained premiums for the years 1988-1991, these years have been excluded from the analysis.

⁴ In its 1997 and 1999 Reports, PwC included in its calculation of MPCCI pretax net income a measure of MPCCI investment income based on 6% of an imputed value for MPCCI surplus. We do not use this approach because it is difficult, if not impossible, to accurately impute an economically sensible measure of surplus for the MPCCI business. Moreover, investment income is less important in the MPCCI line than it is in the P&C line, because MPCCI claims are paid at essentially the same time as the premium is collected. In addition, the SRA requires that the entire premium be forwarded to FCIC within weeks of the premium billing date. Consequently, the insurer has essentially no opportunity to earn investment income on the "float" between the time at which premiums are collected and claims are paid.

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Loss).⁵ Exhibit 1 provides the data required to calculate pretax net income for the MPCCI business while Exhibit 2 provides data required to calculate pretax net income for the P&C business. Exhibit 3 summarizes MPCCI and P&C net income figures. Figure 1 of Exhibit 3 shows that in the MPCCI business, two of the eleven years between 1992 and 2002 were unprofitable.⁶ If the catastrophic results of 1988 are also taken into consideration, three of the fifteen years in the period 1988-2002 have been unprofitable for the industry. In comparison, Figure 2 of Exhibit 3 shows that the U.S. P&C business experienced a loss only in 2001; moreover, this is the first time in its history that the P&C business has experienced an annual net loss. These results suggest that capital invested in the MPCCI business is exposed to greater risk than capital invested in the P&C business.

In addition to our comparisons of MPCCI and P&C net income before taxes, we also analyze MPCCI and P&C returns and the risk associated with those returns. To measure MPCCI returns, we divide MPCCI net income before taxes by “retained premium.” MPCCI retained premium is a publicly available figure that measures the companies’ portion of revenue obtained from selling MPCCI policies in a given period of time, where the companies’ portion excludes the amounts reinsured by FCIC.⁷ To measure P&C returns, we divide P&C net income before taxes by P&C direct earned premium, net of expenses. Expenses are netted out of the P&C premium to reflect the fact that premiums in the P&C business are designed to cover expenses while MPCCI premiums are reimbursed through

⁵ This measure of P&C net income excludes unrealized capital gain (loss). Although the P&C business has experienced significant unrealized capital losses in several past years, these losses were excluded from our results because they were unrealized; there is no economic reason to believe that P&C companies would have sold their stocks in a down market rather than wait for them to recover.

⁶ It should be noted that these results reflect the occurrence of only one recent catastrophic loss year, the 1993 crop season. Losses in 1993 were attributable to the severe flooding and excess moisture conditions experienced in the Midwest. See Zacharias, Thomas P. “Impact on Agricultural Production: Huge Financial Losses Lead to New Policies.” *The Great Flood of 1993*, Changnon, Stanley A., Ed., Westview Press: Boulder, Colorado 1996, Pages: 163-182. The time series does not even include a major drought event such as that experienced in 1988. USDA’s Office of the Chief Economist has estimated that this event would have resulted in a \$450 million underwriting loss if it had occurred in 1998. See Statement of Joseph W. Glauber, Deputy Chief Economist, U.S. Department of Agriculture, before the Committee on Agriculture, Nutrition and Forestry, United States Senate on March 10, 1999.

⁷ In the insurance business as a whole, returns are sometimes measured as net income divided by “surplus.” Surplus is calculated as the excess of an insurance company’s assets over its liabilities; it provides an insurance company with protection against adverse movements in underwriting and investment returns. In this study, we do not measure returns based on surplus for several reasons. First, surplus data are not publicly available for the MPCCI business. Second, there is no economically accepted way to accurately allocate surplus to a single line of business. (See e.g., Bass, Irene K., Khury, C. K., “Surplus Allocation: An Oxymoron.” *Casualty Actuarial Society Discussion Paper Program*, Casualty Actuarial Society : Arlington, Virginia 1992 May, Vol 2 Page(s): 553-584.) One of the reasons why this issue is particularly pertinent to the MPCCI business is that several of the companies currently participating in the MPCCI business are large national carriers, backed by large multi-line insurers or other large financial institutions. Third, even in the P&C industry, any estimate of surplus will reflect the high degree of uncertainty in insurer’s liabilities, since surplus is simply the difference between an insurance company’s assets and its liabilities.

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A&O subsidies rather than premium. Risk is typically measured as the standard deviation of returns.⁸ If investors are risk averse and care about total risk, then they will require higher expected returns (or profits) when risks are greater. Therefore, one would expect profits to rise with increases in risk.

As discussed above, our analysis covers the period 1992 to 2002. However, the events of September 11 played a significant role in making 2001 an anomalously unprofitable year for the P&C business. According to Insurance Services Offices Inc., an insurance industry statistical and research organization, 2001 was the first year in which the U.S. P&C business as a whole experienced an annual net loss after taxes.⁹ Hence, when we measure returns and risk for the P&C business, we present two calculations; one is based on data for the full period while the other excludes 2001.

Exhibits 1 and 2 provide weighted average returns and the standard deviation of those returns for the MPCCI and P&C businesses, respectively.¹⁰ The MPCCI business has a lower average return — 7.9% compared to the 12.7% return for P&C.¹¹ Risk, as measured by the standard deviation, is greater for the MPCCI business (12.9% vs. 8.9% for P&C). These findings suggest that there is greater risk associated with the MPCCI returns. Put another way, these results indicate that dollars invested in the P&C industry have enjoyed higher returns and lower variability associated with those returns. Results for the P&C business are even more favorable if 2001 is excluded from the analysis. On this basis, the P&C average return rises to 14.6% while the standard deviation drops to 7.3%.¹²

One of the fundamental differences between the MPCCI business and the P&C business is the degree of control that insurers have over their prices and underwriting activities. In the P&C industry, individual insurers are able to respond to underwriting losses by increasing their prices in the following years or by restricting or limiting coverage. Depending on the price responsiveness of their consumer base, this ability to adjust prices

⁸ Standard deviation is a standard statistical measure of spread in a distribution of returns. It is computed by taking the square root of the square of the expected value of the difference between actual returns and expected returns. (See Principles of Corporate Finance, Fourth Edition, Richard A. Brealey and Stewart C. Myers at p. 132)

⁹ See “P/C Industry Suffers First-Ever Net Loss in 2001; Surplus Drops as Terrorist Attack and Poor Investment Results Pummel Earnings,” ISO, http://www.iso.com/press_releases/2002/04_15_02_2.html

¹⁰ Profitability is calculated as the ratio of the sum of pretax net income to the sum of retained premiums (net of expenses). In the text and exhibits, this figure is referred to as a weighted average.

¹¹ Results for the MPCCI and P&C industries are based primarily on publicly available information. P&C returns include investment income earned on surplus while MPCCI returns do not. Consequently, the average returns for the two industries are expressed on different bases. No attempt has been made to restate the results for the two industries on a comparable basis since the accuracy of any such estimate cannot be verified.

¹² The coefficient of variation (“CV”), which is equal to the standard deviation divided by the average return, indicates that the MPCCI business is more than twice as risky as the P&C business. The CV for the MPCCI business is 1.6 (12.9%/7.9%) while the CV for the P&C business is 0.5 (7.3%/14.6%).

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or coverage levels may allow P&C insurers correct for future losses and protect their long-term solvency. In comparison, MPCCI insurers have no individual control over the prices they can charge or the policy provisions, both of which are established by FCIC/RMA. The absence of insurer control over prices and policy provisions increases the risk of the MPCCI program in relation to the P&C industry.

III. MPCCI EXPENSE-PREMIUM RATIOS ARE SIGNIFICANTLY BELOW THOSE IN P&C BUSINESS

Having examined the profitability of the P&C business as compared with the MPCCI business, we next compare their expense ratios. The MPCCI expense ratio is defined as total expenses divided by gross premium while the P&C expense ratio is defined as total expenses divided by direct premium written net of expenses.¹³ Total expenses include loss adjustment expense, commission and other expenses incurred while selling and servicing business.¹⁴ Total premiums for a line of business such as MPCCI or P&C will be impacted by the price of each policy—which is established by RMA for MPCCI policies on annual basis—and the number and type of policies sold.

Exhibit 4 shows that the expense-premium ratio for MPCCI companies has declined significantly over time. Since 1992, MPCCI expense ratios have never been above 35%, and since 1995, they have not exceeded 30%. Exhibit 4 also shows that the expense-premium ratio for MPCCI companies is well below the expense-premium ratio observed for the P&C business as a whole. Exhibit 5 provides a breakdown of the components of the total expense-premium ratio; the three additional ratios presented are Loss Adjustment Expense/Premium, Commission/Premium and Other Expense/Premium. Overall, the MPCCI line has lower expense ratios in all three categories.

The overall decline in MPCCI expense-premium ratios presented in Exhibit 4 and Exhibit 5 is consistent with improved cost effectiveness of the industry as program participation has grown.¹⁵ This decline has occurred even under stringent governmental requirements

¹³ As noted above, in order to compare MPCCI expense ratios to those of the P&C business, we need to account for the fact that the MPCCI premium is not expected to cover expenses. In contrast, P&C business premiums are expected to cover both losses and expenses. To ensure that ratios were comparable, we reduced the P&C direct premium written by the associated expenses. Expense ratios for the P&C business were calculated from these adjusted figures. MPCCI expense ratios were calculated based on gross premium.

¹⁴ Commission expense is the part of an insurance premium paid by the insurer to an agent or broker for his services in procuring and servicing the insurance. Loss adjustment expenses are expenses incurred to investigate and settle losses.

¹⁵ Program participation rates (defined as the ratio of net insured acres to total eligible acres) have increased dramatically in the past decade. In 1980, the participation rate was less than 10%. By 1990, participation rates had increased to around 40%, where they hovered in the early 1990s. In 1995, participation rates jumped to over 80%. The jump in participation rates from 1994 to 1995 is coincident with the Federal Crop Insurance Reform Act of 1994, which made enrollment in crop insurance program a precondition for participating in many of USDA's benefit support programs. Though participation rates

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for insurers to provide service to all eligible producers regardless of the cost. Because of this requirement, private companies are precluded from taking many actions that other types of insurers use to contain costs and enhance economic viability. As a result, MPCCI companies are required to offer coverage to growers with poor insurance experience, small acreage or other characteristics that may make them impossible or difficult to serve profitably. While this requirement may significantly increase overall program costs, it does support the social goal of making crop insurance available to all farmers.¹⁶

Exhibit 6 focuses on commission payments to agents and brokers, which constitute approximately one-half of total expenses for the MPCCI business. It shows that commission-premium ratios for the MPCCI line have never exceeded those for the P&C business as a whole.

In sum, Exhibits 4-6 illustrate two key points:

1. The MPCCI business shows lower total expense ratios than the P&C business for the 1992-2002 period.
2. MPCCI expense ratios have declined over the 1992-2002 period, despite increasing services and unreimbursed costs required from MPCCI companies by FCIC/RMA. The reduction in expenses is consistent with efficiencies achieved by MPCCI reinsured companies.

IV. RECENT A&O SUBSIDIES HAVE LEFT A SIGNIFICANT PROPORTION OF MPCCI EXPENSES UNCOVERED

As shown in Exhibit 1, column (1), the available data on MPCCI companies' net expense gain/loss show that since 1996, the amount of MPCCI expenses has exceeded A&O reimbursements. Moreover, with the 1998 SRA and subsequent passage of the Agricultural Research, Extension and Education Reform Act of 1998, the MPCCI A&O reimbursements have been cut dramatically from previous levels. Since 1998, the MPCCI companies' aggregate annual MPCCI expenses have exceeded aggregate A&O reimbursements by more than \$100 million; in 2002, the unreimbursed portion of MPCCI

decreased after 1995, they were up to above 80% in 2001 and 2002. Sources: Statement of J. W. Glauber, Deputy Chief Economist, USDA, before the Committee on Agriculture, Nutrition and Forestry, United States Senate, March 10, 1999; Glauber, J.W. and K.J. Collins. 2002. "Risk Management and the Role of the Federal Government." In R.E. Just and R.D. Pope, eds., *A Comprehensive Assessment of the Role of Risk in U.S. Agriculture*. Boston: Kluwer Academic Publishers, page 475; Statement of Ross Davidson before Subcommittee on Agriculture, Rural Development and Related Agencies, March 5, 2003; Statement of Keith Collins, Chief Economist, USDA, before the Committee on Agriculture, Nutrition, and Forestry, U.S. Senate, May 23, 2002.

¹⁶ General discussions of the role of government intervention and policy goals of the federal crop insurance program can be found in: Glauber, J.W. and K.J. Collins. 2002. "Risk Management and the Role of the Federal Government." In R.E. Just and R.D. Pope, eds., *A Comprehensive Assessment of the Role of Risk in U.S. Agriculture*. Boston: Kluwer Academic Publishers.

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expenses was nearly \$200 million. As shown in Exhibit 7, the ratio of A&O reimbursements to gross premium has been declining. Although MPCCI expense-premium ratios have declined from about 34% to about 28% over the period 1992 to 2002, A&O reimbursement ratios have fallen even faster from about 35% to about 22% over this same period.

Overall, these data indicate a large and increasing shortfall between the industry's actual expenses and the amount by which the Federal government compensates companies for their efforts. When the RMA determines premiums to be charged for the MPCCI program, it only takes into consideration the expected underwriting loss; MPCCI expenses are not figured into the calculation.¹⁷ Hence, any inadequacy in the A&O reimbursement is absorbed by the MPCCI insurers through a reduction in their profits. In addition, any costs associated with increased program requirements are absorbed by MPCCI insurers without additional compensation.

V. PRELIMINARY ASSESSMENT OF THE PROPOSED SRA

RMA has issued a December 31, 2003 draft of the 2005 proposed SRA. NCIS provided comments to its member companies and to RMA in a separate document ("Preliminary Analysis and Evaluation by National Crop Insurance Services of the Proposed 2005 Standard Reinsurance Agreement.") The 2005 proposed SRA contains several major modifications relative to the existing SRA. Two of these modifications directly and fundamentally impact the profitability and risk profiles of the MPCCI carriers: (1) the 25% quota share (specified in Section II.B.6. of the proposed 2005 SRA) and (2) the excess expense penalty (specified in Section III.A.2.c.i. of the proposed 2005 SRA). We have analyzed how these two proposed provisions would impact: (1) the 1992-2002 pretax net income for the MPCCI business and (2) the pattern of risk and return for the MPCCI business over this same period.¹⁸

Our analysis of the proposed 2005 SRA focuses on the extent to which the 25% quota share and excess expense penalty provisions discussed above would have impacted historic measures of return, risk and net income. One potential approach is to reduce both net underwriting gain (loss) and retained premium by 25% to assess the effect of the proposed 25% quota share reinsurance provision. While this approach may be appropriate from an accounting perspective, it is misleading from an economic perspective, because retained premium is used as a scaling factor. Hence, the analysis presented below evaluates the economic impact of the proposed SRA by reducing only the net underwriting gain (loss), while the retained premium is unchanged from its value prior to the application of the 25% quota share reinsurance.

¹⁷ Here we refer to actual company expenses, not A&O subsidies.

¹⁸ Note that over the period 1992-2002, several SRAs have been in effect. The current SRA went into effect in July 1997.

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Historical Returns Prior to Application of the Proposed SRA: The historical average return for the MPCCI business is the standard against which the impact of the proposed SRA can be evaluated. As indicated in Exhibit 1, the historical average return for the MPCCI business has been 7.9% of retained premium, while the standard deviation of these returns has been 12.9%.

Impact of 25% Quota Share Provision: Exhibit 8, Column (6), presents the economic impact on MPCCI returns of the 25% quota share provision. As stated above, these results are developed by applying the quota share provision to net underwriting income only. No adjustment is made to the MPCCI companies' actual retained premium. Column (6) shows that the weighted average return on retained premium for the period 1992-2002 is 4.6% while the standard deviation of these returns is 9.9%. For illustrative purposes, Column (7) presents the MPCCI weighted average return and standard deviation based on a calculation in which both retained premium and net underwriting gain/loss are reduced by 25%.

Impact of 25% Quota Share Provision and Excess Expense Penalty: Exhibit 9, Column (7), presents the economic impact on MPCCI returns of the 25% quota share provision in combination with the excess expense penalty. Column (7) shows that the weighted average return on retained premium for the period 1992-2002 is 1.0% while the standard deviation of these returns is 11.0%. For illustrative purposes, Column (8) presents MPCCI weighted average returns based on a calculation in which both retained premium and net underwriting gain/loss are reduced by 25%.

Comparison of Pure Underwriting Gain and Loss: Thus far, we have analyzed the impact of the proposed provisions on MPCCI pretax net income expressed as a percentage of retained premium. Another analysis that may be informative is to consider the impact of the proposed SRA on the ratio of net underwriting gain (loss) to retained premium, excluding from consideration the shortfall of A&O reimbursements to fully compensate MPCCI insurers for their expenses. Exhibit 10, Column (5), presents the economic impact on this ratio of the 25% quota share provision alone. The weighted average ratio for the period 1992-2002 is 10.0% while the standard deviation of that ratio is 9.7%. Column (6) includes the impact of the excess expense penalty. This reduces the ratio to 6.4% and increases the standard deviation to 9.9%. Columns (7) and (8) provide results after reducing the retained premium by 25%.

Summary of Proposed SRA Impact: Exhibit 11 illustrates the impact of the quota share and excess expense penalty provisions on MPCCI pretax net income. On a combined basis, these provisions have a severe adverse impact, which is quantified in Exhibit 12. As shown in column (5), if the 25% quota share and excess expense penalty provisions had been in place during the period 1992-2002, they would have reduced MPCCI net income by about 85% in 1998 and 1999, by over 100% in both 2000 and 2001, and by about 55% in 2002.

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VI. SUMMARY AND CONCLUSIONS

This Report analyzes the economic performance of MPCCI carriers. Specifically, it presents pretax net income, and risk and return profiles for the MPCCI and P&C businesses. It also compares expense ratios for these two lines of business and examines historical subsidies for A&O expenses. Lastly, it provides estimates of the impacts of the proposed 2005 SRA based on historical data.

The results in this Report indicate that the MPCCI line of business does not possess risk-return advantages relative to the P&C business. The P&C business as a whole has had an annual net loss in only one year in its history, 2001. In contrast, the MPCCI business as a whole lost money in three years between 1988 and 2002 alone (1988, 1993 and 2002). MPCCI expense ratios are substantially below those found in the P&C business, and aggregate A&O subsidies have fallen far short of MPCCI companies' aggregate expenses for the past several years. Key provisions in the proposed 2005 SRA provide further challenges to the industry. The results of this analysis will be updated and augmented as additional data and information become available.

Exhibit 1

PROFITABILITY OF THE MPC I PROGRAM
 (IN MILLIONS)

Calendar Year	Net Expense Gain (Loss)	Net Underwriting Gain (Loss)	Pretax Net Income	Retained Premium	Pretax Net Income / Retained Premium
	(1)	(2)	(3)	(4)	(5)
Formula			(1)+(2)		(3)/(4)
1992	5.4	22.6	28.0	465.6	6.0%
1993	2.7	(82.5)	(79.8)	434.5	-18.4%
1994	(4.1)	104.4	100.3	534.5	18.8%
1995	11.2	130.9	142.1	765.8	18.6%
1996	(0.6)	245.8	245.2	1,152.5	21.3%
1997	(63.2)	352.5	289.3	1,263.1	22.9%
1998	(110.5)	279.5	169.0	1,591.7	10.6%
1999	(114.7)	271.8	157.1	1,836.9	8.6%
2000	(141.8)	285.2	143.4	1,894.2	7.6%
2001	(173.6)	368.0	194.4	2,372.8	8.2%
2002	(199.4)	(38.3)	(237.7)	2,294.5	-10.4%
Total	(788.8)	1,939.9	1,151.1	14,606.0	n/a

Return on Retained Premium		
	Weighted Average	Std Dev
1992-2002	7.9%	12.9%

Sources: (1)PwC 1999 Report, Table 4, page 23; (2)Joseph W. Glauber and Keith J. Collins, "Crop Insurance, Disaster Assistance, and the Role of the Federal Government in Providing Catastrophic Risk Protection," Agricultural Finance Review, Volume 62, Number 2, Fall 2002, Table 4, page 95; (3) Statement of Joseph W. Glauber, Deputy Chief Economist, U.S. Department of Agriculture, before the Committee on Agriculture, Nutrition and Forestry, United States Senate, March 10, 1999, Table 3, page 16; (4)RMA Reinsurance Runs <<http://www.rma.usda.gov/data/reinsurance>>; (5) NCIS survey of companies

Exhibit 2

PROFITABILITY OF THE PROPERTY/CASUALTY INSURANCE INDUSTRY
(IN MILLIONS)

Calendar Year	Net Underwriting Income ¹	Net Investment Income	Realized Capital Gain (Loss)	Pretax Net Income	DEP ²	Total Expense	Adjusted DEP ³	Pretax Net Income/Adjusted DEP	Pretax Net Income/DEP
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Formula				(1)+(2)+(3)			(5)-(6)	(4)/(7)	(4)/(5)
1992	(36,074)	33,618	9,874	7,418	237,966	92,288	145,679	5.09%	3.12%
1993	(18,010)	32,740	10,153	24,883	246,758	94,910	151,848	16.39%	10.08%
1994	(21,936)	33,668	1,620	13,352	257,137	98,557	158,580	8.42%	5.19%
1995	(17,375)	36,834	5,997	25,456	267,254	104,074	163,180	15.60%	9.53%
1996	(16,995)	37,930	9,249	30,184	274,761	105,737	169,024	17.86%	10.99%
1997	(6,029)	41,499	10,808	46,278	282,063	109,619	172,444	26.84%	16.41%
1998	(16,572)	39,925	18,019	41,372	290,521	116,453	174,068	23.77%	14.24%
1999	(24,429)	38,855	13,016	27,442	296,783	120,114	176,669	15.53%	9.25%
2000	(30,847)	40,704	16,205	26,062	309,896	124,723	185,173	14.07%	8.41%
2001	(51,539)	37,739	6,631	(7,169)	340,861	133,761	207,101	-3.46%	-2.10%
2002	(31,387)	39,073	2,855	10,541	383,518	147,640	235,878	4.47%	2.75%
Total	(271,193)	412,585	104,427	245,819	3,187,518	1,247,876	1,939,644	n/a	n/a

Return on Adjusted DEP		
	Weighted Average	Std Dev
(1) 1992-2002	12.7%	8.9%
(2) 1992-2002 without 2001	14.6%	7.3%

Sources: Best's Averages A&A, Editions 1993-2003

¹ Due to rounding issues, calculated figures in this and other exhibits will slightly differ from results produced by combining the appropriate components.

² DEP is Direct Earned Premium

³ Adjusted DEP is Direct Earned Premium minus Total Expense

Deloitte & Touche LLP

Prepared on behalf of National Crop Insurance Services

Exhibit 3

COMPARISON OF PRETAX NET INCOME

Figure 1: MPCJ Pretax Net Income 1992-2002

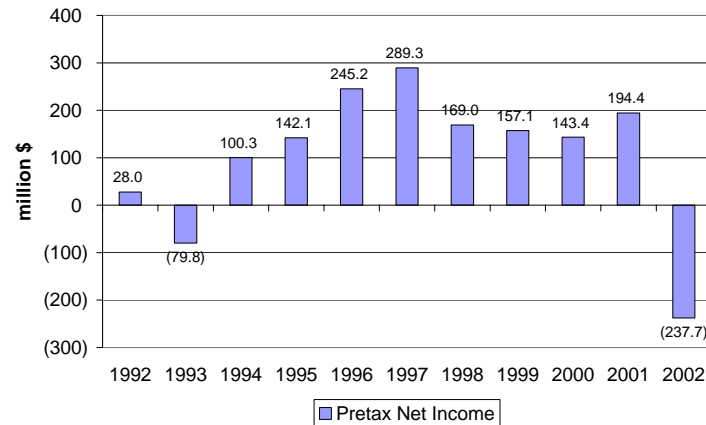
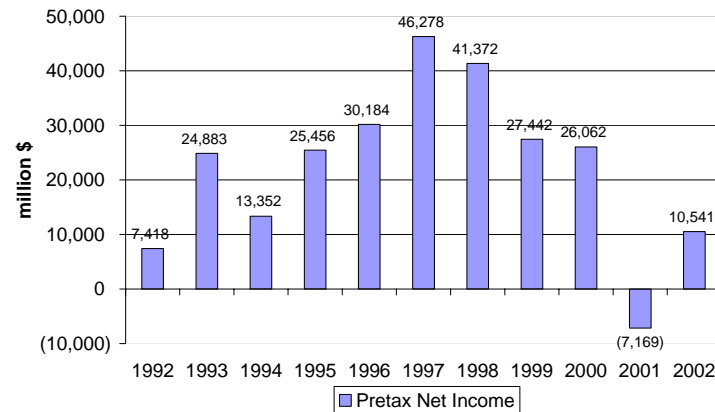
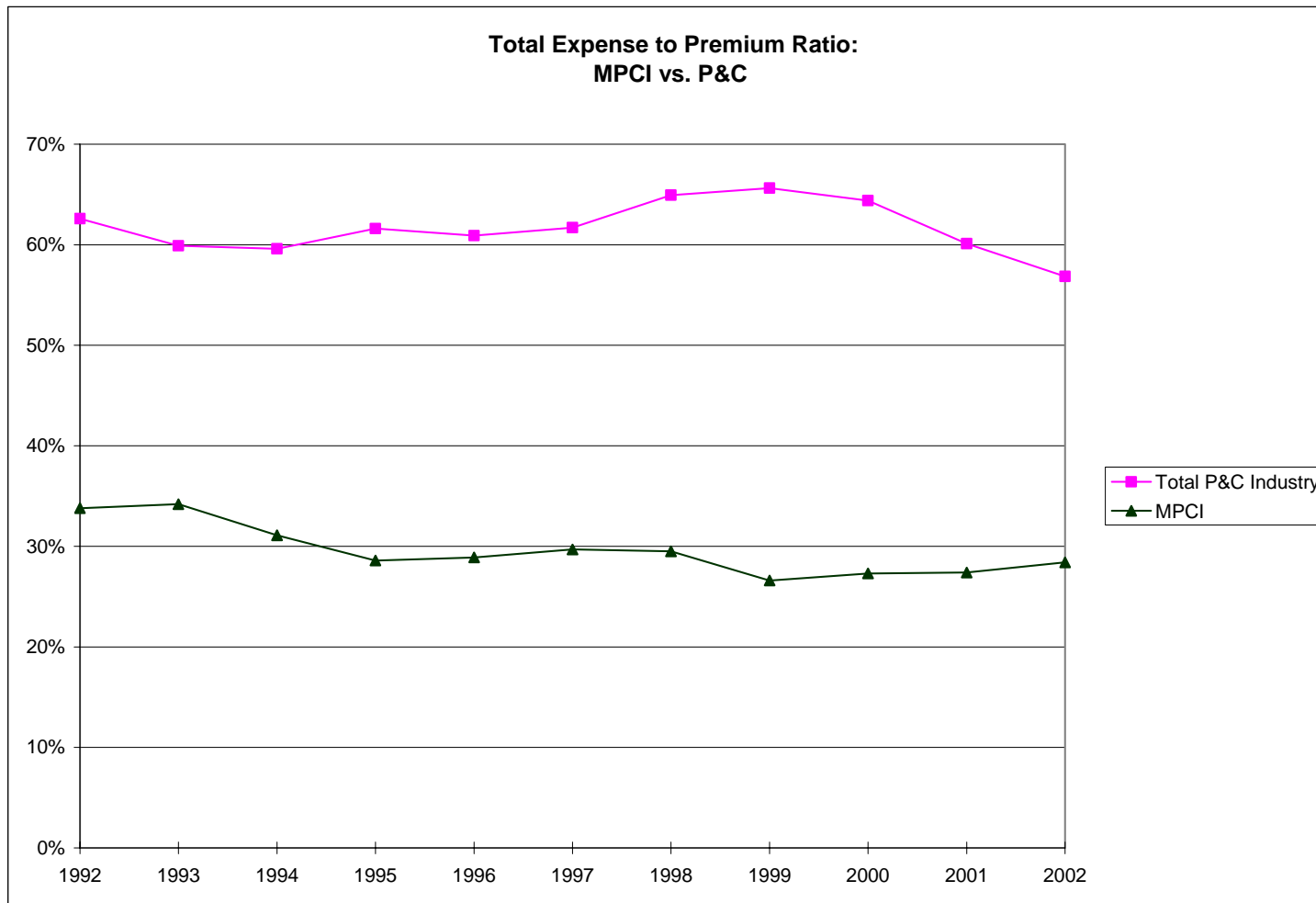


Figure 2: P&C Pretax Net Income 1992-2002



Sources: See sources for Exhibit 1 and Exhibit 2

Exhibit 4



Sources: See sources for Exhibit 1 and Exhibit 2

Exhibit 5:

EXPENSE TO PREMIUM RATIOS FOR MPCCI AND P&C

5.1: MPCCI

Year	Loss Adjustment Expense/ Gross Premium	Commission/ Gross Premium	Other Expense/ Gross Premium	Total Expense/ Gross Premium
1992	4.2%	16.0%	13.6%	33.8%
1993	5.4%	16.8%	12.0%	34.2%
1994	3.9%	17.0%	10.3%	31.1%
1995	3.9%	14.9%	9.8%	28.6%
1996	3.6%	15.9%	9.4%	28.9%
1997	3.4%	15.6%	10.6%	29.7%
1998	3.7%	16.6%	9.2%	29.5%
1999	3.1%	15.5%	8.0%	26.6%
2000	3.5%	15.9%	7.9%	27.3%
2001	3.7%	15.7%	8.1%	27.4%
2002	4.2%	15.8%	8.4%	28.4%

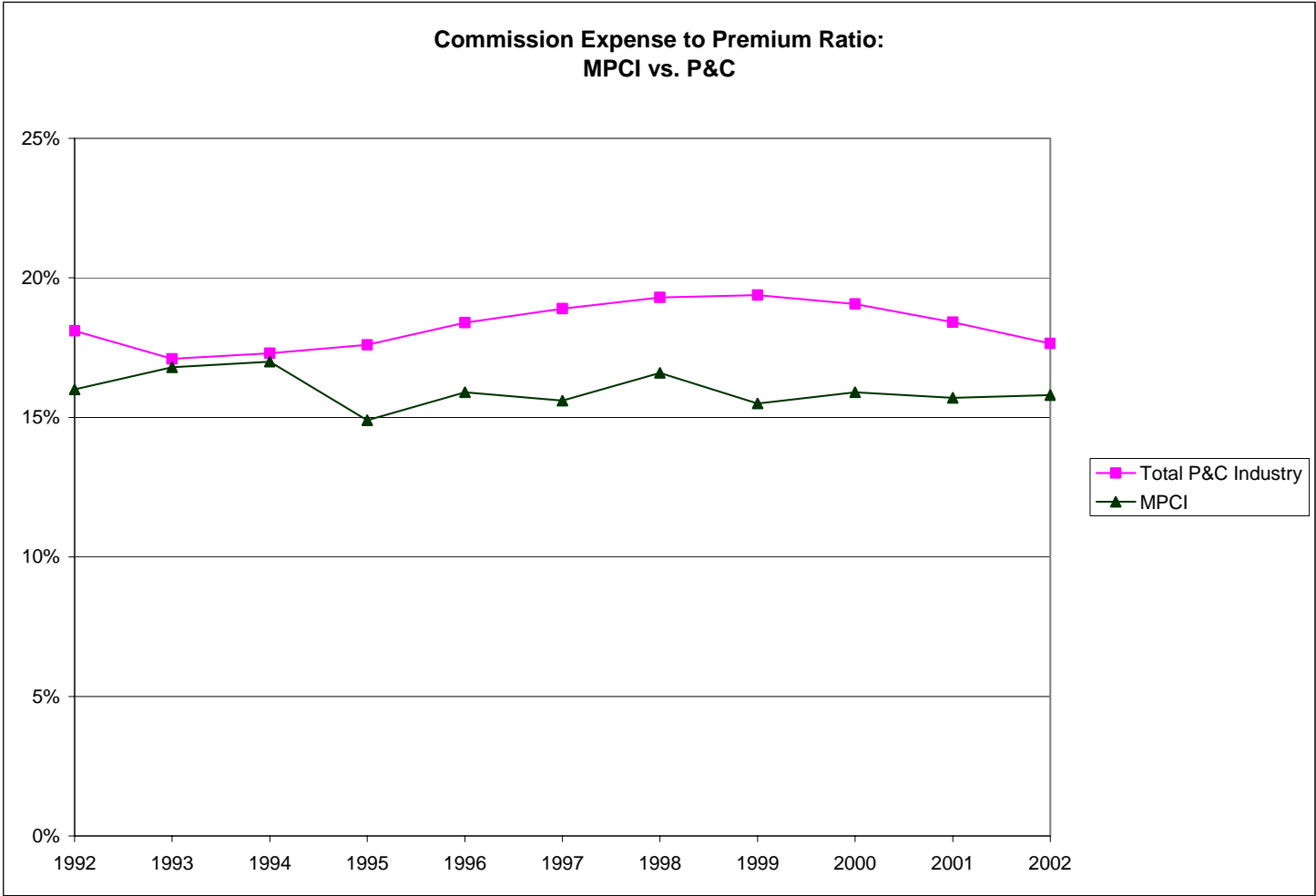
5.2: TOTAL P&C INDUSTRY

Year	Loss Adjustment Expense/ Adjusted DPW ¹	Commission/ Adjusted DPW	Other Expense/ Adjusted DPW	Total Expense/ Adjusted DPW
1992	21.7%	18.1%	22.8%	62.6%
1993	20.0%	17.1%	22.7%	59.9%
1994	20.1%	17.3%	22.3%	59.6%
1995	20.8%	17.6%	23.1%	61.6%
1996	19.9%	18.4%	22.6%	60.9%
1997	19.4%	18.9%	23.3%	61.7%
1998	21.1%	19.3%	24.6%	64.9%
1999	20.9%	19.4%	25.3%	65.7%
2000	19.7%	19.1%	25.6%	64.4%
2001	19.8%	18.4%	21.9%	60.1%
2002	18.7%	17.6%	20.5%	56.9%

Sources: See sources for Exhibit 1 and Exhibit 2

¹ Adjusted DPW is Direct Premium Written minus Total Expense

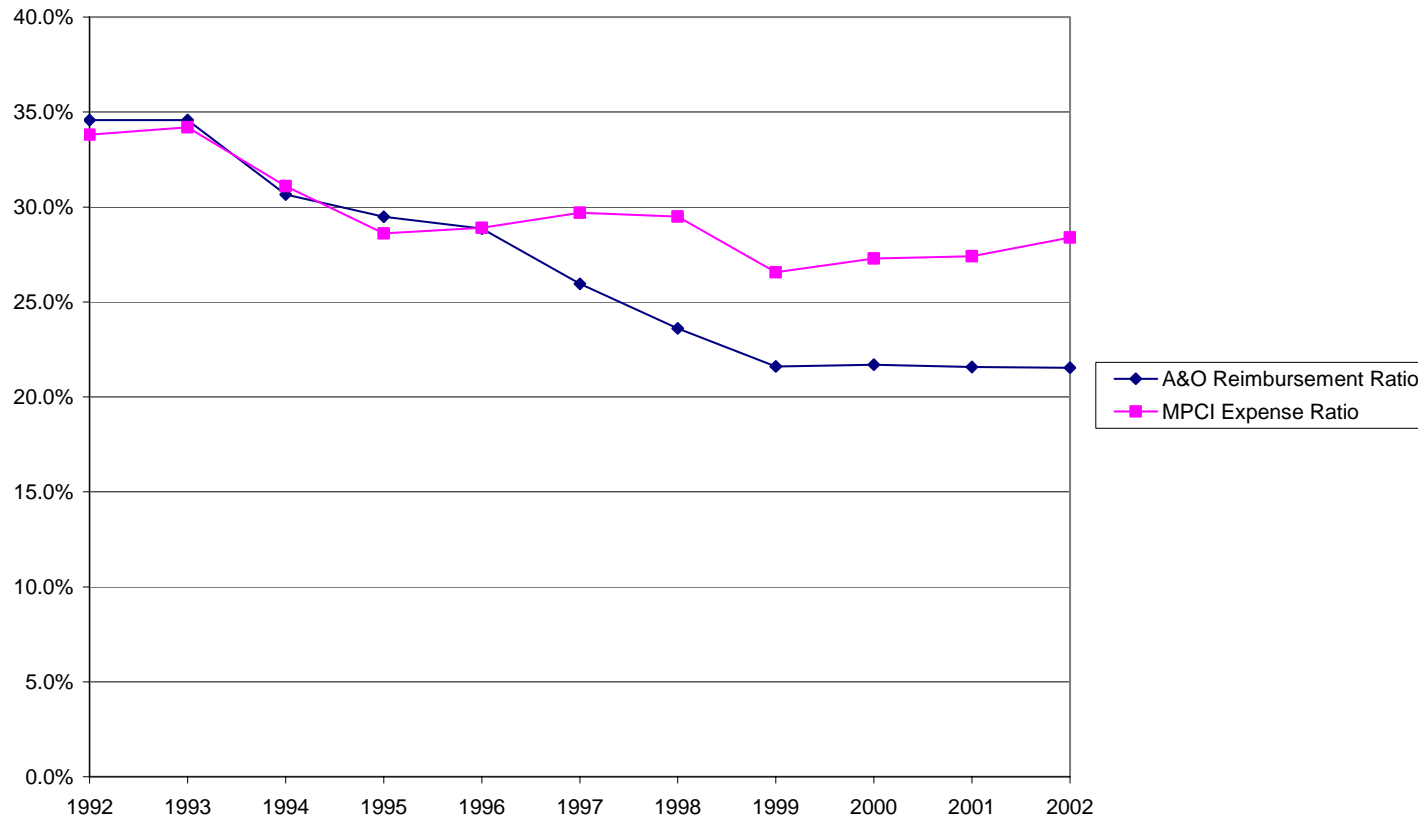
Exhibit 6



Sources: See sources for Exhibit 1 and Exhibit 2

Exhibit 7

Comparison of Ratio of A&O Reimbursement to Gross Premium with
Ratio of Total Expense to Gross Premium



Sources: See sources for Exhibit 1

**Exhibit 8 PROFITABILITY OF THE MPCFI PROGRAM UNDER THE PROPOSED 2005 SRA WITH 25% QUOTA SHARE
 (IN MILLIONS)**

Calendar Year	Net Expense Gain (Loss) (1)	Net Underwriting Gain (Loss) ¹ reduced by 25% (2)	Pretax Net Income (3)	Retained Premium (4)	Adjusted Retained Premium reduced by 25% (5)	Pretax Net Income / Retained Premium (6)	Pretax Net Income / Adjusted Retained Premium (7)
Formula			(1)+(2)		(4)*0.75	(3)/(4)	(3)/(5)
1992	5.4	17.0	22.3	465.6	349.2	4.8%	6.4%
1993	2.7	(61.9)	(59.2)	434.5	325.9	-13.6%	-18.2%
1994	(4.1)	78.3	74.2	534.5	400.9	13.9%	18.5%
1995	11.2	98.2	109.4	765.8	574.4	14.3%	19.1%
1996	(0.6)	184.4	183.7	1,152.5	864.4	15.9%	21.3%
1997	(63.2)	264.4	201.1	1,263.1	947.3	15.9%	21.2%
1998	(110.5)	209.6	99.1	1,591.7	1,193.8	6.2%	8.3%
1999	(114.7)	203.9	89.1	1,836.9	1,377.7	4.9%	6.5%
2000	(141.8)	213.9	72.1	1,894.2	1,420.6	3.8%	5.1%
2001	(173.6)	276.0	102.4	2,372.8	1,779.6	4.3%	5.8%
2002	(199.4)	(28.7)	(228.1)	2,294.5	1,720.9	-9.9%	-13.3%
Total	(788.8)	1,454.9	666.1	14,606.0	10,954.5	n/a	n/a

Weighted Average	4.6%	6.1%
Std Dev	9.9%	13.2%

Sources: See sources for Exhibit 1

¹ This exhibit is based on Exhibit 1. The exhibit applies the 25% Quota Share provision as though it had been in effect throughout the historical period 1992-2002. (December 31, 2003 draft "2005 Standard Reinsurance Agreement", Section II, subsection B, paragraph 6 "Retained Net Book Quota Share", subparagraph a.). The impact of any other provisions from the proposed SRA is not reflected in this exhibit. To apply the 25% Quota Share provision, we reduced the net underwriting gain/loss column taken from Exhibit 1 by 25%.

Deloitte & Touche LLP
 Prepared on behalf of National Crop Insurance Services

Exhibit 9

PROFITABILITY OF THE MPC I PROGRAM UNDER THE PROPOSED 2005 SRA WITH
 25% QUOTA SHARE AND EXCESS EXPENSE PENALTY
 (IN MILLIONS)

Calendar Year	Net Expense Gain (Loss) (1)	Net Underwriting Gain (Loss) reduced by 25% (2)	Penalty ² (3)	Pretax Net Income (4)	Retained Premium (5)	Adjusted Retained Premium reduced by 25% (6)	Pretax Net Income / Retained Premium (7)	Pretax Net Income / Adjusted Retained Premium (8)
Formula				(1)+(2)-(3)		(5)*0.75	(4)/(5)	(4)/(6)
1992	5.4	17.0	0.0	22.3	465.6	349.2	4.8%	6.4%
1993	2.7	(61.9)	0.0	(59.2)	434.5	325.9	-13.6%	-18.2%
1994	(4.1)	78.3	0.0	74.2	534.5	400.9	13.9%	18.5%
1995	11.2	98.2	0.0	109.4	765.8	574.4	14.3%	19.1%
1996	(0.6)	184.4	0.0	183.7	1,152.5	864.4	15.9%	21.3%
1997	(63.2)	264.4	29.5	171.6	1,263.1	947.3	13.6%	18.1%
1998	(110.5)	209.6	73.0	26.1	1,591.7	1,193.8	1.6%	2.2%
1999	(114.7)	203.9	68.5	20.6	1,836.9	1,377.7	1.1%	1.5%
2000	(141.8)	213.9	91.1	(19.0)	1,894.2	1,420.6	-1.0%	-1.3%
2001	(173.6)	276.0	114.0	(11.6)	2,372.8	1,779.6	-0.5%	-0.7%
2002	(199.4)	(28.7)	141.2	(369.4)	2,294.5	1,720.9	-16.1%	-21.5%
Total	(788.8)	1,454.9	517.3	148.8	14,606.0	10,954.5	n/a	n/a

Weighted Average	1.0%	1.4%
Std Dev	11.0%	14.6%

Sources: See sources for Exhibit 1

¹ This exhibit is based on Exhibit 1. The exhibit applies the 25% Quota Share provision as though it had been in effect throughout the historical period 1992-2002. (December 31, 2003 draft “2005 Standard Reinsurance Agreement”, Section II, subsection B, paragraph 6 “Retained Net Book Quota Share”, subparagraph a.)

² Under the proposed 2005 SRA, companies are required to pay a penalty if their expenses exceed A&O reimbursements by more than 2% of the net book premium. The penalty is equal to (a) expenses minus (b) A&O reimbursements and minus (c) 2% of net book premium. For more details, see Exhibit 9A - Supporting Calculations.

Deloitte & Touche LLP

Prepared on behalf of National Crop Insurance Services

EXHIBIT 9 A

**SUPPORTING CALCULATIONS
 (IN MILLIONS)**

Calendar Year	Unreimbursed Expense <i>(1)</i>	Gross Premium <i>(2)</i>	Unreimbursed Expense/ Gross Premium <i>(3)</i>	Test <i>(4)</i>	Penalty <i>(5)</i>	Total Loss <i>(6)</i>
Formula			<i>(1)/(2)</i>	<i>Is (3) equal or greater than 2%?</i>	<i>((3)-2%) *(2) if (3)>=2%</i>	<i>(1)+(5)</i>
1992	(5.4)	694.2	-0.8%	NO	0.0	(5.4)
1993	(2.7)	701.9	-0.4%	NO	0.0	(2.7)
1994	4.1	918.7	0.4%	NO	0.0	4.1
1995	(11.2)	1,280.6	-0.9%	NO	0.0	(11.2)
1996	0.6	1,622.2	0.0%	NO	0.0	0.6
1997	63.2	1,687.0	3.7%	YES	29.5	92.7
1998	110.5	1,876.0	5.9%	YES	73.0	183.5
1999	114.7	2,312.4	5.0%	YES	68.5	183.3
2000	141.8	2,536.5	5.6%	YES	91.1	232.9
2001	173.6	2,977.6	5.8%	YES	114.0	287.6
2002	199.4	2,909.4	6.9%	YES	141.2	340.7

Sources: See sources for Exhibit 1

Exhibit 10 **IMPACT ON MPC I PROGRAM OF THE PROPOSED 2005 SRA: NET UNDERWRITING GAIN (LOSS)**
 (IN MILLIONS)

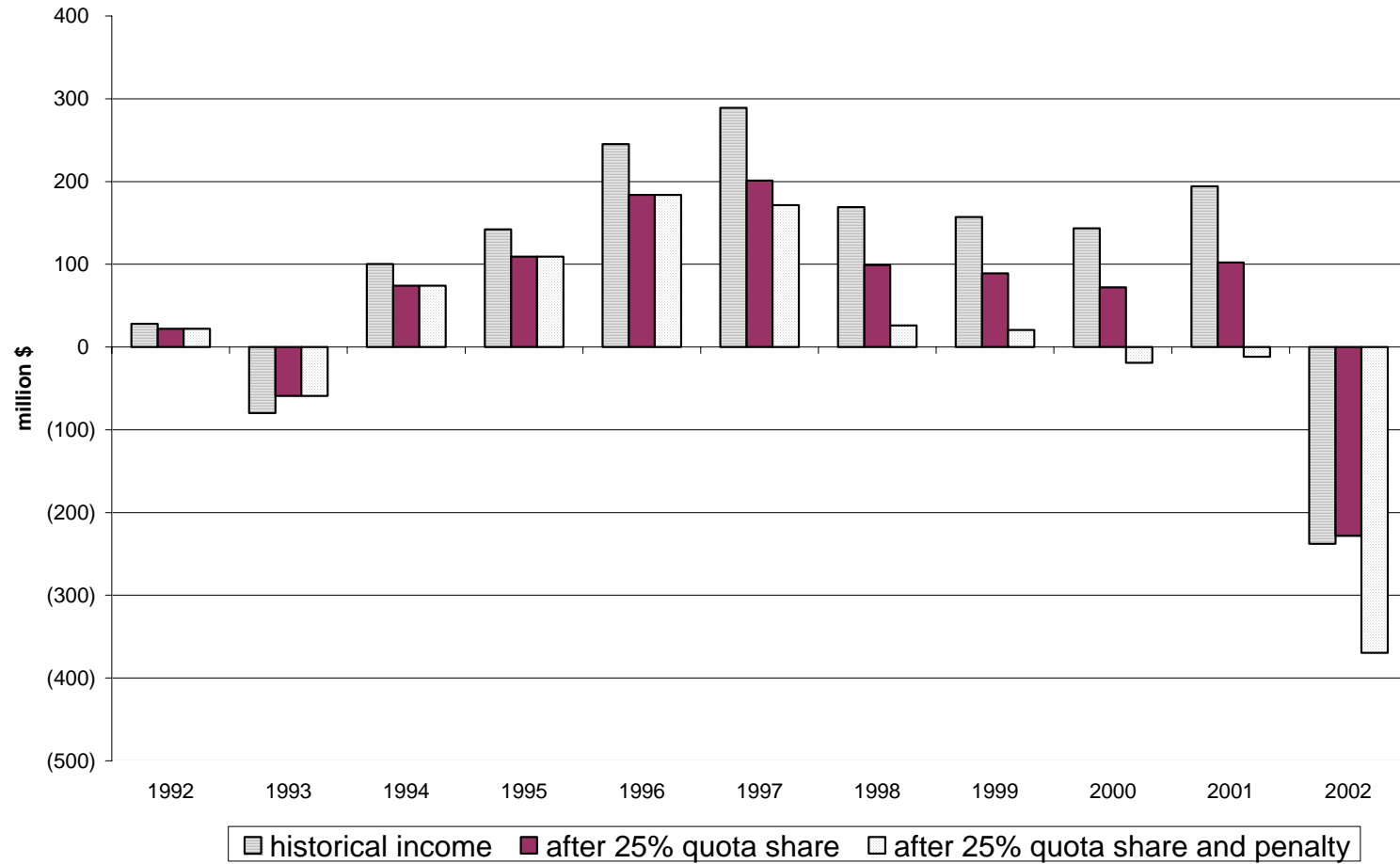
Calendar Year	Net Underwriting Gain (Loss) <i>reduced by 25%</i> (1)	Penalty (2)	Retained Premium (3)	Adjusted Retained Premium <i>reduced by 25%</i> (4)	Net Underwriting Gain (Loss)/ Retained Premium (5)	Net Underwriting Gain (Loss) and Penalty/ Retained Premium (6)	Net Underwriting Gain (Loss)/ Adjusted Retained Premium (7)	Net Underwriting Gain (Loss) and Penalty/ Adjusted Retained Premium (8)
Formula				$(3) \times 0.75$	$(1)/(3)$	$((1)-(2))/(3)$	$(1)/(4)$	$((1)-(2))/(4)$
1992	17.0	0.0	465.6	349.2	3.6%	3.6%	4.9%	4.9%
1993	-61.9	0.0	434.5	325.9	-14.2%	-14.2%	-19.0%	-19.0%
1994	78.3	0.0	534.5	400.9	14.6%	14.6%	19.5%	19.5%
1995	98.2	0.0	765.8	574.4	12.8%	12.8%	17.1%	17.1%
1996	184.4	0.0	1,152.5	864.4	16.0%	16.0%	21.3%	21.3%
1997	264.4	29.5	1,263.1	947.3	20.9%	18.6%	27.9%	24.8%
1998	209.6	73.0	1,591.7	1,193.8	13.2%	8.6%	17.6%	11.4%
1999	203.9	68.5	1,836.9	1,377.7	11.1%	7.4%	14.8%	9.8%
2000	213.9	91.1	1,894.2	1,420.6	11.3%	6.5%	15.1%	8.6%
2001	276.0	114.0	2,372.8	1,779.6	11.6%	6.8%	15.5%	9.1%
2002	-28.7	141.2	2,294.5	1,720.9	-1.3%	-7.4%	-1.7%	-9.9%
Total	1,454.9	517.3	14,606.0	10,954.5	n/a	n/a	n/a	n/a

Weighted Average	10.0%	6.4%	13.3%	8.6%
Std Dev	9.7%	9.9%	13.0%	13.2%

Sources: See sources for Exhibit 1

Exhibit 11

Impact on Pretax Net Income of the Proposed 2005 SRA



Sources: See sources for Exhibit 1

Exhibit 12

IMPACT ON PRETAX NET INCOME OF THE PROPOSED 2005 SRA
 (IN MILLIONS)

Calendar Year	Pretax Net Income historical ¹ (1)	Pretax Net Income Proposed SRA 25% quota share ² (2)	Change in Pretax Net Income (3)	Pretax Net Income Proposed SRA 25% quota share and excess expense penalty ³ (4)	Change in Pretax Net Income (5)
Formula			((2)-(1))/abs(1)		((4)-(1))/abs(1)
1992	28.0	22.3	-20.2%	22.3	-20.2%
1993	(79.8)	(59.2)	25.8%	(59.2)	25.8%
1994	100.3	74.2	-26.0%	74.2	-26.0%
1995	142.1	109.4	-23.0%	109.4	-23.0%
1996	245.2	183.7	-25.1%	183.7	-25.1%
1997	289.3	201.1	-30.5%	171.6	-40.7%
1998	169.0	99.1	-41.4%	26.1	-84.6%
1999	157.1	89.1	-43.3%	20.6	-86.9%
2000	143.4	72.1	-49.7%	(19.0)	-113.2%
2001	194.4	102.4	-47.3%	(11.6)	-106.0%
2002	(237.7)	(228.1)	4.0%	(369.4)	-55.4%
Total	1,151.1	666.1	-42.1%	148.8	-87.1%

Sources: See sources for Exhibit 1

¹ Values were taken from Exhibit 1

² Values were taken from Exhibit 8

³ Values were taken from Exhibit 9

Deloitte & Touche LLP

Prepared on behalf of National Crop Insurance Services

APPENDIX A : EXHIBIT DETAILS AND ASSUMPTIONS

Overview:

The 2004 report contains several exhibits. The purpose of these exhibits is to present profitability, riskiness and efficiency measures for the MPCCI industry. The report also contains exhibits with similar metrics for the P&C industry as a whole. All exhibits present data from on an aggregate basis from 1992 to 2002.

The exhibits are based on the following sources of data:

1. "Federal Crop Insurance Program: Profitability and Effectiveness Analysis. 1999 Update", May 1999, PricewaterhouseCoopers, hereafter referred to as "the PwC 1999 report."
2. 1993-2003 editions of Best's Aggregates & Averages - Property/Casualty - United States & Canada, produced by A.M. Best (<www.ambest.com>). The source will be hereafter referred to as "Best's A&A."
3. MPCCI results as of 2-5-04b.xls file provided by the NCIS. This source provides results from surveys of NCIS member companies participating in the MPCCI program.
4. RMA Reinsurance Run data (<<http://www.rma.usda.gov/data/reinsurance>>), obtained on 2/9/2004.
5. Joseph W. Glauber and Keith J. Collins, "Crop Insurance, Disaster Assistance, and the Role of the Federal Government in Providing Catastrophic Risk Protection," *Agricultural Finance Review*, Volume 62, Number 2, Fall 2002, page 81.
6. Statement of Joseph W. Glauber, Deputy Chief Economist, U.S. Department of Agriculture, before the Committee on Agriculture, Nutrition and Forestry, United States Senate, March 10, 1999.

Exhibit 1: Profitability of the MPCCI Program

Exhibit 1 shows returns on Retained Premium for MPCCI in 1992-2002. This exhibit is based on *MPCCI results as of 2-5-04b.xls* file provided by NCIS and several public sources listed above. Detailed information on the sources of data for Exhibit 1 is available in **Appendix Table A**.

Exhibit 2: Profitability of the Property/Casualty Insurance Industry

Exhibit 2 shows returns on Adjusted Direct Earned Premium for P&C industry in 1992-2002. This exhibit is based on data published in Best's A&A, Editions 1992-2003. Detailed information on the sources of data for Exhibit 2 is available in **Appendix Table B**.

Exhibit 3: Comparison of Pretax Net Income

Exhibit 3 includes two bar charts based on Exhibit 1 and Exhibit 2.

Exhibit 4: Total Expense to Premium Ratio: MPCCI vs. P&C

Deloitte & Touche LLP

Prepared on behalf of National Crop Insurance Services, Inc.

Exhibit 4 is a graph based on the numbers presented in Exhibit 5.

Exhibit 5: Expense to Premium Ratios for MPCCI and P&C

Exhibit 5 compares MPCCI and P&C expense to premium ratios. The denominator used in exhibit 5.1 is Gross Premium. For 1992-1998, the MPCCI expense ratios were taken from the PwC 1999 report. For 1999-2002, the expense ratios were based on NCIS survey results presented in MPCCI results as of 2-5-04b.xls file provided by the NCIS and premium numbers from <<http://www.rma.usda.gov/data/reinsurance>>.

The denominator used in exhibit 5.2 is Adjusted Direct Premium Written. This is equal to Direct Premium Written minus Total Expenses. Detailed information on the sources of data for Exhibit 5.2 is available in **Appendix Table C**.

Exhibit 6: Commission Expense to Premium Ratio: MPCCI vs. P&C

Exhibit 6 is a graph based on numbers presented in Exhibit 5

Exhibit 7: Comparison of Ratio of A&O Reimbursement to Gross Premium with Ratio of Total Expense to Gross Premium

A&O reimbursements, Gross Premiums, and Total Expenses used in Exhibit 7 are derived from the same sources as were used in Exhibit 1. Please see **Appendix Table A** for more details.

Exhibit 8: Profitability of the MPCCI Program under the Proposed 2005 SRA with 25% Quota Share

Exhibit 8 is based on Exhibit 1. This exhibit applies the 25% Quota Share provision as though it had been in effect throughout the historical period 1992-2002. (December 31, 2003 draft “2005 Standard Reinsurance Agreement,” section II, subsection B, paragraph 6 “Retained Net Book Quota Share”, subparagraph a.). The impacts of any other provisions from the proposed SRA are not reflected in this exhibit. To apply the 25% Quota Share provision, we reduced the net underwriting gain/loss column taken from Exhibit 1 by 25%.

Exhibit 9: Profitability of the MPCCI Program under the Proposed 2005 SRA with 25% Quota Share and Excess Expense Penalty

Exhibit 9 is based on Exhibit 8. In this exhibit, we apply the Excess Expense Penalty calculated in Exhibit 9 A- Supporting Calculations.

Exhibit 9A: Supporting Calculations:

In this Exhibit, we calculate the Excess Expense Penalty proposed in the 2005 SRA as though the SRA had been in effect throughout the historical period 1992-2002. All the values in this exhibit were taken from the same sources as were used in Exhibit 1.

Exhibit 10: Impact on MPCCI Program of the Proposed 2005 SRA: Net Underwriting Gain (Loss)

Exhibit 10 is based on values presented in Exhibit 9.

Exhibit 11: Impact on Pretax Net Income of the Proposed 2005 SRA

Exhibit 11 is a bar chart based on Exhibits 1, 8, and 9, and corresponds to the results displayed in Exhibit 12. It presents MPCCI income numbers under the current SRA and selected provisions of the proposed SRA.

Exhibit 12: Impact on Pretax Net Income of the Proposed 2005 SRA

Exhibit 12 is based on Exhibits 1, 8, and 9. It presents MPCCI income numbers under the current SRA and selected provisions of the proposed SRA in a table form.

Appendix Table A: Sources for Exhibit 1

Column	Components	Year	Source
Net Expense Gain (Loss) <i>Net Expense Gain (Loss)</i> was calculated as (a)A&O Reimbursement minus (b) MPCl Total Expenses.	A&O Reimbursement	1992-2001	A&O reimbursements were assumed to be equal to Delivery Costs in Joseph W. Glauber and Keith J. Collins, "Crop Insurance, Disaster Assistance, and the Role of the Federal Government in Providing Catastrophic Risk Protection," <i>Agricultural Finance Review</i> , Volume 62, Number 2, Fall 2002, Table 4, page 95 .
		2002	<i>MPCI results as of 2-5-04b.xls</i> provided by NCIS
	MPCl Total Expense	1992-1997	MPCl Total Expense was calculated as a product of (a)expense ratios from the PwC 1999 report (Exhibit 4) and (b)Gross Premium values from Statement of Joseph W. Glauber, Deputy Chief Economist, U.S. Department of Agriculture, before the Committee on Agriculture, Nutrition and Forestry, United States Senate, March 10, 1999, Table 3, page 16. Expense ratios from the PwC 1999 report were based on a survey of 9 companies, Exhibit 4.
		1998	MPCl Total Expense was calculated as a product of (a)expense ratios from the PwC 1999 report (Exhibit 4) and (b)Gross Premium values gross premiums provided by RMA (< http://www.rma.usda.gov/data/reinsurance/ > (2/7/2004).
		1999-2002	<i>MPCI results as of 2-5-04b.xls</i> provided by NCIS updated with premium values from < http://www.rma.usda.gov/data/reinsurance/ > (2/7/2004)
Net Underwriting Gain (Loss)		1992-2001	Joseph W. Glauber and Keith J. Collins, "Crop Insurance, Disaster Assistance, and the Role of the Federal Government in Providing Catastrophic Risk Protection," <i>Agricultural Finance Review</i> , Volume 62, Number 2, Fall 2002, Table 4, page 95
		2002	<i>MPCI results as of 2-5-04b.xls</i> provided by NCIS updated with premium values from < http://www.rma.usda.gov/data/reinsurance/ > (2/7/2004)
Pretax Net Income		1992-2002	<i>Pretax Net Income</i> was calculated as a sum of <i>Net Expense Gain (Loss)</i> and <i>Net Underwriting Gain (Loss)</i>
Retained Premium		1992-1997	Statement of Joseph W. Glauber, Deputy Chief Economist, U.S. Department of Agriculture, before the Committee on Agriculture, Nutrition and Forestry, United States Senate, March 10, 1999, Table 3, page 16
		1998-2002	RMA < http://www.rma.usda.gov/data/reinsurance/ > (2/7/2004)
Pretax Net Income/ Retained Premium		1992-2002	This column was calculated by dividing values in <i>Pretax Net Income</i> column by values in <i>Retained Premium</i> column

Appendix Table B: Sources for Exhibit 2

Column	Description	Year	Source
Net Underwriting Income	Net underwriting income after dividends to policyholders without state funds	1992-1997	The PwC 1999 report, Exhibit 1
		1998-2001	Best's A&A, edition 2002, page 264
		2002	Best's A&A, edition 2003, page 349 (industry), page 49 (state funds) <i>Net Underwriting Income</i> was calculated as a difference between underwriting gain/loss for the industry (including state funds) minus the underwriting gain/loss for state funds. <i>Net Underwriting Income</i> = Underwriting income on page 349 - (line 8 + line 15 [other income] - line 17 [dividends to policyholders]) from page 49).
Net Investment Income	Net investment income without state funds	1992-1997	The PwC 1999 report, Exhibit 1
		1998-2001	Best's A&A, edition 2002, page 264
		2002	Best's A&A, edition 2003, page 349 (industry), page 49 (state funds), for 2002 <i>Net Investment Income</i> was calculated as net investment income for P&C industry minus net investment income for state funds. <i>Net Investment Income</i> = Investment income on page 349 - line 9 on page 49
Realized Capital Gain/Loss	Realized capital gain or loss	1992-1997	The PwC 1999 report, Exhibit 1
		1998-2001	Best's A&A, edition 2002, page 190
		2002	Best's A&A, edition 2003, page 4 (industry), page 49 (state funds) <i>Realized Capital Gain/Loss</i> was calculated as realized capital gain/loss for the industry minus realized capital gain/loss for state funds. <i>Realized Capital Gain/Loss</i> = line 10 on page 4 – line 10 on page 49
Pretax Net Income	Total pretax income or revenue	1992-2002	Calculated as a sum of <i>Net Underwriting Income</i> , <i>Net Investment Income</i> , <i>Realized Capital Gain/Loss</i>

Direct Earned Premium	Direct Earned Premium	1992	Best's A&A, edition 1993, page 140
		1993-1996	Best's A&A, edition 1998, page 243
		1997-2001	Best's A&A, edition 2002, page 293
		2002	Best's A&A, edition 2003, page 160, page 367 <i>Direct Earned Premium (DEP)</i> was calculated as the direct earned premium for the P&C industry minus the direct earned premium for state funds. <i>DEP</i> = DEP on page 367 (Total All Lines section) – line 34, column 3 on page 160
Total Expense	Total Expense	1992	Best's A&A, edition 1993, page 140-141 <i>Total Expense</i> was calculated as a sum of columns 5, 6, 12, 13, 14, 15.
		1993-1996	Best's A&A, edition 1998, page 243 <i>Total Expense</i> was calculated as a sum of LAE, Commissions, and Other Expenses based on the appropriate ratios
		1997-2001	Best's A&A, edition 2002, page 293 <i>Total Expense</i> was calculated as a sum of LAE, Commissions, and Other Expense based on the appropriate ratios
		2002	Best's A&A, edition 2003, page 135-136, page 160-161 <i>Total expense</i> was calculated as a sum of industry expenses minus state fund expenses. Total expense = columns [9+11+23+25+27+29] on page 135-136 - columns [9+11+23+25+27+29] on page 160-161
Adjusted Direct Earned Premium (DEP)	DEP adjusted for expense	1992-2002	Calculated as <i>Direct Earned Premium</i> minus <i>Total Expenses</i> . This adjustment was made to make P&C and MPCCI DEP as well as ratios using DEP more comparable. P&C Premiums include the insurer's provisions for expected loss, expense, and profit, whereas MPCCI premiums include the provision for only the expected losses.
Pretax Net Income/ Adjusted DEP	Ratio indicative of profitability	1992-2002	Calculated as <i>Total Pretax Income</i> divided by <i>Adjusted Direct Earned Premium</i>
Pretax Net Income/DEP	Ratio indicative of profitability	1992-2002	Calculated as <i>Total Pretax Income</i> divided by <i>Direct Earned Premium</i>

Appendix Table C: Sources for Exhibit 5.2, P&C

Column	Inputs	Year	Source
Loss Adjustment Expense/ Adjusted Direct Premium Written ¹	Loss Adjustment Expense	1992-1997	The ratio was taken from the PwC 1999 report, Exhibit 4
		1998-2001	Best's A&A, edition 2002, page 293 Loss Adjustment Expense was calculated based on the ratio of "Loss Adj Incurred" to Direct Premiums Earned and the value for Direct Premiums Earned.
		2002	Best's A&A, edition 2003, page 160 (state funds), page 135 (industry), for 2002 State funds were subtracted from the industry aggregate for Loss Adjustment Expense. <i>Loss Adjustment Expense</i> = line 34, (column 9 + column 11) on page 135 - line 34 (column 9 + column 11) on page 160
	Direct Premiums Written	1992-1997	The ratio was taken from the PwC 1999 report, Exhibit 4
		1998-2001	Best's A&A, edition 2002, page 293
		2002	Best's A&A, edition 2003, page 160 (state funds), page 135 (industry) State funds premiums were subtracted from industry aggregate premiums <i>DPW</i> = line 34, column 1 on page 135 - line 34, column 1 on page 160
Commissions/ Adjusted Direct Premium Written	Commissions	1992-1997	The ratio was taken from the PwC 1999 report, Exhibit 4
		1998-2001	Best's A&A, edition 2002, page 293 Commissions were calculated based on the ratio of "Comms and Brokerage Incurred" to Direct Premiums Written and the value for Direct Premiums Written.
		2002	Best's A&A, edition 2003, page 161 (state funds), page 136 (industry) State fund commissions were subtracted from industry aggregates. <i>Commissions</i> = line 34, column 23 on page 136 - line 34, column 23 on page 161
	Direct Premiums Written	1992-2002	Same as above

4	Other Expense/ Adjusted Direct Premium Written	Other Expense	1992-1997	The ratio was taken from the PwC 1999 report, Exhibit 4
			1998-2001	Best's A&A, edition 2002, page 293 Other expense was calculated based on the ratio of "Other Underwriting expenses Incurred" to Direct Premiums Written and the value for Direct Premiums Written.
			2002	Best's A&A, edition 2003, page 161 (state funds), page 136 (industry) State fund Other Expense was subtracted from industry aggregates. <i>Other Expense</i> = line 34, (column 25 + column 27 + column 29) on page 136 - line 34, (column 25 + column 27 + column 29) on page 161
		Direct Premiums Written	1988-2002	Same as above
5	Total Expense/ Adjusted Direct Premium Written	Total Expense	1992-1997	The ratio was taken from the PwC 1999 report, Exhibit 4
			1998-2002	Calculated as the sum of Loss Adjustment Expense, Commissions, and Other expense
		Direct Premiums Written	1988-2002	Same as above

Notes:

¹ Adjusted Direct Premium Written is equal to Direct Premium Written minus Total Expense