

**ARCH REINSURANCE LTD. AND SUBSIDIARIES**

**(a wholly-owned subsidiary of Arch Capital Group Ltd.)**

**Consolidated Financial Statements**

**December 31, 2010 and 2009**

## INDEX TO FINANCIAL STATEMENTS

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## Report of Independent Auditors

To the Board of Directors and Shareholder of  
Arch Reinsurance Ltd.:

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of income, changes in shareholder's equity, comprehensive income, and cash flows present fairly, in all material respects, the financial position of Arch Reinsurance Ltd. and its subsidiaries at December 31, 2010 and December 31, 2009, and the results of their operations and their cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

As discussed in Note 2 to the consolidated financial statements, the Company changed the manner in which it accounts for other-than-temporary impairment losses in 2009.

*PricewaterhouseCoopers LLP*

April 26, 2011

**ARCH REINSURANCE LTD. AND SUBSIDIARIES**  
**CONSOLIDATED BALANCE SHEETS**  
(U.S. dollars in thousands, except share data)

|   | <b>December 31,</b> |              |
|---|---------------------|--------------|
|   | <b>2010</b>         | <b>2009</b>  |
| <b>Assets</b>   |                     |              |
| Investments:  |                     |              |
| Fixed maturities available for sale, at market value (amortized cost: \$8,889,447 and \$9,220,349).....                           | \$9,075,234         | \$9,384,743  |
| Short-term investments available for sale, at market value<br>(amortized cost: \$905,590 and \$548,847) .....                     | 907,943             | 549,867      |
| Investment of funds received under securities lending agreements, at market value<br>(amortized cost: \$69,682 and \$96,590)..... | 69,660              | 91,160       |
| TALF investments, at market value (amortized cost: \$389,200 and \$247,192) .....   | 402,449             | 250,265      |
| Equity securities available for sale, at market value (cost: \$346,019 and \$36,478) .....  | 363,255             | 36,623       |
| Other investments (cost: \$326,324 and \$126,027).....  | 349,272             | 135,549      |
| Investment funds accounted for using the equity method .....  | 434,600             | 391,869      |
| Total investments.....  | 11,602,413          | 10,840,076   |
| Cash.....   | 343,927             | 316,421      |
| Accrued investment income.....  | 74,772              | 70,605       |
| Investment in joint venture (cost: \$100,000).....  | 105,698             | 102,855      |
| Fixed maturities and short-term investments pledged under securities lending agreements, at market value...                       | 75,575              | 212,820      |
| Securities purchased under agreements to resell using funds received under securities lending agreements ...                      | —                   | 115,839      |
| Premiums receivable .....   | 529,605             | 618,257      |
| Unpaid losses and loss adjustment expenses recoverable.....   | 1,815,845           | 1,783,260    |
| Paid losses and loss adjustment expenses recoverable .....  | 62,231              | 61,355       |
| Prepaid reinsurance premiums.....   | 272,439             | 287,135      |
| Deferred acquisition costs, net.....  | 277,861             | 280,372      |
| Receivable for securities sold .....  | 56,143              | 187,171      |
| Other assets .....  | 498,746             | 432,268      |
| Total Assets.....   | \$15,715,255        | \$15,308,434 |
| <b>Liabilities</b>  |                     |              |
| Reserve for losses and loss adjustment expenses .....   | \$8,211,098         | \$7,997,172  |
| Unearned premiums .....   | 1,379,066           | 1,442,481    |
| Reinsurance balances payable .....  | 142,218             | 164,922      |
| TALF borrowings, at market value (par: \$326,219 and \$218,740) .....   | 325,770             | 217,565      |
| Securities lending payable .....  | 78,021              | 219,116      |
| Payable for securities purchased .....  | 200,192             | 136,381      |
| Other liabilities .....   | 513,519             | 459,093      |
| Total Liabilities.....  | 10,849,884          | 10,636,730   |
| <b>Commitments and Contingencies</b>  |                     |              |
| <b>Shareholder's Equity</b>   |                     |              |
| Common shares (\$1.00 par, shares authorized: 2,625,000, issued: 2,560,423) .....   | 2,560               | 2,560        |
| Additional paid-in capital .....  | 2,254,759           | 2,225,752    |
| Retained earnings .....   | 2,403,633           | 2,304,966    |
| Accumulated other comprehensive income, net of deferred income tax .....  | 204,419             | 138,426      |
| Total Shareholder's Equity .....  | 4,865,371           | 4,671,704    |
| Total Liabilities and Shareholder's Equity .....  | \$15,715,255        | \$15,308,434 |

See Notes to Consolidated Financial Statements

**ARCH REINSURANCE LTD. AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF INCOME**  
(U.S. dollars in thousands)

|  | <b>Year Ended December 31,</b> |                  |
|--|--------------------------------|------------------|
|  | <b>2010</b>                    | <b>2009</b>      |
| <b>Revenues</b>  |                                |                  |
| Net premiums written.....  | \$2,511,040                    | \$2,763,112      |
| Change in unearned premiums.....   | 41,443                         | 79,633           |
| Net premiums earned .....  | 2,552,483                      | 2,842,745        |
| Net investment income.....   | 365,388                        | 389,958          |
| Net realized gains.....  | 252,458                        | 143,529          |
| Other-than-temporary impairment losses.....  | (13,073)                       | (147,509)        |
| Less investment impairments recognized in other comprehensive income, before taxes ..... | 1,752                          | 81,376           |
| Net impairment losses recognized in earnings .....                                       | (11,321)                       | (66,133)         |
| Equity in net income of investment funds accounted for using the equity method...        | 61,400                         | 167,819          |
| Other income.....  | 20,624                         | 20,116           |
| Total revenues.....  | <u>3,241,032</u>               | <u>3,498,034</u> |
| <b>Expenses</b>  |                                |                  |
| Losses and loss adjustment expenses .....  | 1,517,715                      | 1,654,674        |
| Acquisition expenses.....  | 441,202                        | 493,560          |
| Other operating expenses .....   | 402,106                        | 360,413          |
| Interest expense.....  | 7,120                          | 1,625            |
| Net foreign exchange (gains) losses.....   | (28,108)                       | 39,157           |
| Total Expenses .....   | <u>2,340,035</u>               | <u>2,549,429</u> |
| Income Before Income Taxes .....   | 900,997                        | 948,605          |
| Income taxes:  |                                |                  |
| Current tax expense.....   | 18,375                         | 22,638           |
| Deferred tax benefit.....  | (11,045)                       | (2,518)          |
| Income tax expense .....   | <u>7,330</u>                   | <u>20,120</u>    |
| Net Income.....  | <u>\$893,667</u>               | <u>\$928,485</u> |

See Notes to Consolidated Financial Statements

**ARCH REINSURANCE LTD. AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDER'S EQUITY**  
(U.S. dollars in thousands)

|  | <b>Year Ended December 31,</b> |                    |
|--|--------------------------------|--------------------|
|  | <b>2010</b>                    | <b>2009</b>        |
| <b>Common Shares</b>   |                                |                    |
| Balance at beginning and end of year .....   | \$2,560                        | \$2,560            |
| <b>Additional Paid-in Capital</b>  |                                |                    |
| Balance at beginning of year .....   | 2,225,752                      | 2,203,440          |
| Amortization of share-based compensation .....   | 19,745                         | 18,959             |
| Other .....  | 9,262                          | 3,353              |
| Balance at end of year .....   | 2,254,759                      | 2,225,752          |
| <b>Retained Earnings</b>   |                                |                    |
| Balance at beginning of year .....   | 2,304,966                      | 1,845,420          |
| Cumulative effect of change in accounting principle (1) .....  | —                              | 61,469             |
| Balance at beginning of year, as adjusted .....  | 2,304,966                      | 1,906,889          |
| Dividends paid to parent .....   | (795,000)                      | (530,408)          |
| Net income .....   | 893,667                        | 928,485            |
| Balance at end of year .....   | 2,403,633                      | 2,304,966          |
| <b>Accumulated Other Comprehensive Income (Loss)</b>   |                                |                    |
| Balance at beginning of year .....   | 138,426                        | (255,991)          |
| Cumulative effect of change in accounting principle (1) .....  | —                              | (61,469)           |
| Balance at beginning of year, as adjusted .....  | 138,426                        | (317,460)          |
| Change in unrealized appreciation (decline) in value of investments, net of deferred income tax .....                        | 66,821                         | 525,903            |
| Portion of other-than-temporary impairment losses recognized in other comprehensive income, net of deferred income tax ..... | (1,752)                        | (81,376)           |
| Foreign currency translation adjustments, net of deferred income tax .....   | 924                            | 11,359             |
| Balance at end of year .....   | 204,419                        | 138,426            |
| Total Shareholder's Equity .....   | <u>\$4,865,371</u>             | <u>\$4,671,704</u> |

(1) Reflects the adoption of accounting guidance regarding the recognition and presentation of other-than-temporary impairments.

See Notes to Consolidated Financial Statements

**ARCH REINSURANCE LTD. AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME**  
(U.S. dollars in thousands)

|  | <b>Year Ended December 31,</b> |                    |
|--|--------------------------------|--------------------|
|  | <b>2010</b>                    | <b>2009</b>        |
| <b>Comprehensive Income</b>  |                                |                    |
| Net income .....   | \$893,667                      | \$928,485          |
| Other comprehensive income, net of deferred income tax   |                                |                    |
| Unrealized appreciation in value of investments:   |                                |                    |
| Unrealized holding gains arising during year .....   | 236,459                        | 574,428            |
| Portion of other-than-temporary impairment losses recognized in other comprehensive income, net of deferred income tax ..... | (1,752)                        | (81,376)           |
| Reclassification of net realized gains, net of income taxes, included in net income .....                                    | (169,638)                      | (48,525)           |
| Foreign currency translation adjustments .....   | 924                            | 11,359             |
| Other comprehensive income .....   | 65,993                         | 455,886            |
| Comprehensive Income .....   | <u>\$959,660</u>               | <u>\$1,384,371</u> |

See Notes to Consolidated Financial Statements

**ARCH REINSURANCE LTD. AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**  
(U.S. dollars in thousands)

|   | <b>Year Ended December 31,</b> |                  |
|---|--------------------------------|------------------|
|   | <b>2010</b>                    | <b>2009</b>      |
| <b>Operating Activities</b>   |                                |                  |
| Net income.....   | \$893,667                      | \$928,485        |
| Adjustments to reconcile net income to net cash provided by operating activities:                                   |                                |                  |
| Net realized gains .....  | (262,390)                      | (123,788)        |
| Net impairment losses recognized in earnings .....  | 11,321                         | 66,133           |
| Equity in net income of investment funds accounted for using the equity method and other income .....               | (56,035)                       | (183,038)        |
| Share-based compensation.....   | 19,745                         | 18,959           |
| Changes in:   |                                |                  |
| Reserve for losses and loss adjustment expenses, net of unpaid losses and loss adjustment expenses recoverable..... | 215,570                        | 219,607          |
| Unearned premiums, net of prepaid reinsurance premiums .....  | (43,337)                       | (79,843)         |
| Premiums receivable .....   | 80,436                         | 52,835           |
| Deferred acquisition costs, net .....   | 1,340                          | 17,572           |
| Reinsurance balances payable.....   | (17,634)                       | 9,762            |
| Other liabilities .....   | (21,445)                       | (4,383)          |
| Other items, net.....   | 28,158                         | 116,712          |
| Net Cash Provided By Operating Activities.....  | <u>849,396</u>                 | <u>1,039,013</u> |
| <b>Investing Activities</b>   |                                |                  |
| Purchases of:   |                                |                  |
| Fixed maturity investments .....  | (16,925,310)                   | (21,266,285)     |
| Equity securities.....  | (365,842)                      | (70,002)         |
| Other investments .....   | (523,532)                      | (225,477)        |
| Proceeds from the sales of:   |                                |                  |
| Fixed maturity investments .....  | 16,644,298                     | 19,774,950       |
| Equity securities.....  | 70,441                         | 38,336           |
| Other investments .....   | 379,100                        | 300,084          |
| Proceeds from redemptions and maturities of fixed maturity investments .....  | 949,681                        | 785,118          |
| Net (purchases) sales of short-term investments.....  | (355,707)                      | 31,979           |
| Change in investment of securities lending collateral .....   | 141,094                        | 534,412          |
| Purchases of furniture, equipment and other assets .....  | (10,891)                       | (19,194)         |
| Net Cash Provided By (Used For) Investing Activities.....   | <u>3,332</u>                   | <u>(116,079)</u> |
| <b>Financing Activities</b>   |                                |                  |
| Proceeds from borrowings.....   | 129,527                        | 219,843          |
| Repayments of borrowings .....  | (22,057)                       | (1,103)          |
| Change in securities lending collateral .....   | (141,094)                      | (534,412)        |
| Other .....   | 7,767                          | 3,169            |
| Dividends paid to parent.....   | (795,000)                      | (530,408)        |
| Net Cash Used For Financing Activities .....  | <u>(820,857)</u>               | <u>(842,911)</u> |
| Effects of exchange rate changes on foreign currency cash.....  | (4,365)                        | 5,542            |
| Increase in cash .....  | 27,506                         | 85,565           |
| Cash beginning of year .....  | 316,421                        | 230,856          |
| Cash end of year .....  | <u>\$343,927</u>               | <u>\$316,421</u> |
| Interest paid .....   | <u>\$7,049</u>                 | <u>\$1,625</u>   |

See Notes to Consolidated Financial Statements

ARCH REINSURANCE LTD. AND SUBSIDIARIES  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

**1. General**

Arch Reinsurance Ltd. (“Arch Re Ltd.”) is a Bermuda limited liability company, incorporated in May 2001 in Bermuda, and is a wholly owned subsidiary of Arch Capital Group Ltd. (“ACGL”), a Bermuda exempted public limited liability company. Arch Re Ltd. is licensed as a Class 4 insurer under the Insurance Act 1978 of Bermuda and is licensed to underwrite both general and long-term business on an insurance and reinsurance basis. Arch Re Ltd. and its subsidiaries (collectively, the “Company”) provide insurance and reinsurance on a worldwide basis.

In October 2001, ACGL launched an underwriting initiative to meet current and future demand in the global insurance and reinsurance markets that included the recruitment of new management teams and an equity capital infusion of \$763 million, of which \$508 million was contributed to Arch Re Ltd.

During 2010 and 2009, Arch Re Ltd. paid \$795.0 and \$530.4 million, respectively, of dividends to ACGL.

**2. Significant Accounting Policies**

*(a) Basis of Presentation*

The consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America (“GAAP”). Results of operations include the accounts of Arch Re Ltd. and its subsidiaries which include; Arch Reinsurance Company (“Arch Re U.S.”), Arch Capital Group (U.S.) Inc. (“Arch-U.S.”) Arch Insurance Company, Arch Specialty Insurance Company, Arch Excess & Surplus Insurance Company, Arch Indemnity Insurance Company, Arch Reinsurance Europe Underwriting Limited (“Arch Re Europe”), Arch Insurance Company (Europe) Limited (“Arch Insurance Company Europe”) and Lloyd’s of London syndicate 2012 and related companies (“Arch Syndicate 2012”). All significant intercompany transactions and balances have been eliminated in consolidation. The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates and assumptions.

The Company has reclassified the presentation of certain prior year information to conform to the current presentation. Such reclassifications had no effect on the Company’s net income, shareholder’s equity or cash flows. Tabular amounts are in U.S. Dollars in thousands, except share amounts, unless otherwise noted.

*(b) Premium Revenues and Related Expenses*

Insurance premiums written are generally recorded at the policy inception and are primarily earned on a pro rata basis over the terms of the policies for all products, usually 12 months. Premiums written include estimates in the Company’s programs, aviation, specialty lines, collateral protection business and for participation in involuntary pools. Such premium estimates are derived from multiple sources which include the historical experience of the underlying business, similar business and available industry information. Unearned premium reserves represent the portion of premiums written that relates to the unexpired terms of in-force insurance policies.

Reinsurance premiums written include amounts reported by brokers and ceding companies, supplemented by the Company’s own estimates of premiums where reports have not been received. The determination of premium estimates requires a review of the Company’s experience with the ceding companies, familiarity with

ARCH REINSURANCE LTD. AND SUBSIDIARIES  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

each market, the timing of the reported information, an analysis and understanding of the characteristics of each line of business, and management's judgment of the impact of various factors, including premium or loss trends, on the volume of business written and ceded to the Company. On an ongoing basis, the Company's underwriters review the amounts reported by these third parties for reasonableness based on their experience and knowledge of the subject class of business, taking into account the Company's historical experience with the brokers or ceding companies. In addition, reinsurance contracts under which the Company assumes business generally contain specific provisions which allow the Company to perform audits of the ceding company to ensure compliance with the terms and conditions of the contract, including accurate and timely reporting of information. Based on a review of all available information, management establishes premium estimates where reports have not been received. Premium estimates are updated when new information is received and differences between such estimates and actual amounts are recorded in the period in which estimates are changed or the actual amounts are determined.

Reinsurance premiums written are recorded based on the type of contracts the Company writes. Premiums on the Company's excess of loss and pro rata reinsurance contracts are estimated when the business is underwritten. For excess of loss contracts, premiums are recorded as written based on the terms of the contract. Estimates of premiums written under pro rata contracts are recorded in the period in which the underlying risks are expected to incept and are based on information provided by the brokers and the ceding companies. For multi-year reinsurance treaties which are payable in annual installments, generally, only the initial annual installment is included as premiums written at policy inception due to the ability of the reinsured to commute or cancel coverage during the term of the policy. The remaining annual installments are included as premiums written at each successive anniversary date within the multi-year term.

Reinstatement premiums for the Company's insurance and reinsurance operations are recognized at the time a loss event occurs, where coverage limits for the remaining life of the contract are reinstated under pre-defined contract terms. Reinstatement premiums, if obligatory, are fully earned when recognized. The accrual of reinstatement premiums is based on an estimate of losses and loss adjustment expenses, which reflects management's judgment.

Premium estimates are reviewed by management at least quarterly. Such review includes a comparison of actual reported premiums to expected ultimate premiums along with a review of the aging and collection of premium estimates. Based on management's review, the appropriateness of the premium estimates is evaluated, and any adjustment to these estimates is recorded in the period in which it becomes known. Adjustments to premium estimates could be material and such adjustments could directly and significantly impact earnings favorably or unfavorably in the period they are determined because the estimated premium may be fully or substantially earned. A significant portion of amounts included as premiums receivable, which represent estimated premiums written, net of commissions, are not currently due based on the terms of the underlying contracts.

Reinsurance premiums written, irrespective of the class of business, are generally earned on a pro rata basis over the terms of the underlying policies or reinsurance contracts. Contracts and policies written on a "losses occurring" basis cover claims that may occur during the term of the contract or policy, which is typically 12 months. Accordingly, the premium is earned evenly over the term. Contracts which are written on a "risks attaching" basis cover claims which attach to the underlying insurance policies written during the terms of such contracts. Premiums earned on such contracts usually extend beyond the original term of the reinsurance contract, typically resulting in recognition of premiums earned over a 24-month period.

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Certain of the Company's reinsurance contracts include provisions that adjust premiums or acquisition expenses based upon the experience under the contracts. Premiums written and earned, as well as related acquisition expenses, are recorded based upon the projected experience under such contracts.

The Company also writes certain reinsurance business that is intended to provide insurers with risk management solutions that complement traditional reinsurance. Under these contracts, the Company assumes a measured amount of insurance risk in exchange for an anticipated margin, which is typically lower than on traditional reinsurance contracts. The terms and conditions of these contracts may include additional or return premiums based on loss experience, loss corridors, sublimits and caps. Examples of such business include aggregate stop-loss coverages, financial quota share coverages and multi-year retrospectively rated excess of loss coverages. If these contracts are deemed to transfer risk, they are accounted for as reinsurance.

Acquisition expenses and other expenses that vary with, and are directly related to, the acquisition of business related to the Company's underwriting operations are deferred and amortized over the period in which the related premiums are earned. Acquisition expenses, net of ceding commissions received from reinsurers, consist principally of commissions and premium taxes paid to obtain the Company's business. Other operating expenses also include expenses that vary with, and are directly related to, the acquisition of business. Deferred acquisition costs, which are based on the related unearned premiums, are carried at their estimated realizable value and take into account anticipated losses and loss adjustment expenses, based on historical and current experience, and anticipated investment income. A premium deficiency occurs if the sum of anticipated losses and loss adjustment expenses, unamortized acquisition costs and maintenance costs and anticipated investment income exceed unearned premiums. A premium deficiency is recorded by charging any unamortized acquisition costs to expense to the extent required in order to eliminate the deficiency. If the premium deficiency exceeds unamortized acquisition costs then a liability is accrued for the excess deficiency. No significant premium deficiency charges were recorded by the Company during 2010 or 2009.

***(c) Deposit Accounting***

Certain assumed reinsurance contracts, which pursuant to Financial Accounting Standards Board ("FASB") guidance regarding the accounting and reporting for reinsurance and short-duration and long-duration contracts, are deemed not to transfer insurance risk, are accounted for using the deposit method of accounting as prescribed in the FASB guidance regarding the accounting for insurance and reinsurance contracts that do not transfer insurance risk. However, it is possible that the Company could incur financial losses on such contracts. Management exercises significant judgment in the assumptions used in determining whether assumed contracts should be accounted for as reinsurance contracts or deposit insurance contracts. Under the FASB guidance, for those contracts that contain an element of underwriting risk, the estimated profit margin is deferred and amortized over the contract period and such amount is included in the Company's underwriting results. When the estimated profit margin is explicit, the margin is reflected as fee income and any adverse financial results on such contracts are reflected as incurred losses. When the estimated profit margin is implicit, the margin is reflected as an offset to paid losses and any adverse financial results on such contracts are reflected as incurred losses. For those contracts that do not transfer an element of underwriting risk, the projected profit is reflected in earnings over the estimated settlement period using the interest method and such profit is included in investment income. Additional judgments are required when applying the accounting guidance with respect to the revenue recognition criteria for contracts deemed not to transfer insurance risk. Deposit accounting liabilities, which totaled \$32.4 million and \$38.2 million, respectively, at December 31, 2010 and 2009, are included in "Other liabilities" on the Company's balance sheet.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

***(d) Retroactive Accounting***

Retroactive reinsurance reimburses a ceding company for liabilities incurred as a result of past insurable events covered by the underlying policies reinsured. In certain instances, reinsurance contracts cover losses both on a prospective basis and on a retroactive basis and, accordingly, the Company bifurcates the prospective and retrospective elements of these reinsurance contracts and accounts for each element separately. Underwriting income generated in connection with retroactive reinsurance contracts is deferred and amortized into income over the settlement period while losses are charged to income immediately. Subsequent changes in estimated or actual cash flows under such retroactive reinsurance contracts are accounted for by adjusting the previously deferred amount to the balance that would have existed had the revised estimate been available at the inception of the reinsurance transaction, with a corresponding charge or credit to income.

***(e) Reinsurance Ceded***

In the normal course of business, the Company purchases reinsurance to increase capacity and to limit the impact of individual losses and events on its underwriting results by reinsuring certain levels of risk with other insurance enterprises or reinsurers. The Company uses pro rata, excess of loss and facultative reinsurance contracts. Reinsurance ceding commissions are recognized as income on a pro rata basis over the period of risk. The portion of such commissions that will be earned in the future is deferred and reported as a reduction to acquisition costs. The accompanying consolidated statement of income reflects premiums and losses and loss adjustment expenses and acquisition costs, net of reinsurance ceded (see Note 3). Ceded unearned premiums are reported as prepaid reinsurance premiums and estimated amounts of reinsurance recoverable on unpaid losses are reported as unpaid losses and loss adjustment expenses recoverable. Reinsurance premiums ceded and unpaid losses and loss adjustment expenses recoverable are estimated in a manner consistent with that of the original policies issued and the terms of the reinsurance contracts. If the reinsurers are unable to satisfy their obligations under the agreements, the Company's insurance or reinsurance subsidiaries would be liable for such defaulted amounts.

***(f) Cash***

Cash includes cash equivalents, which are investments with original maturities of three months or less that are not managed by external or internal investment advisors.

***(g) Investments***

The Company currently classifies substantially all of its fixed maturity investments, equity securities and short-term investments as "available for sale" and, accordingly, they are carried at estimated market value (also known as fair value). The market value of fixed maturity securities and equity securities is generally determined from quotations received from nationally recognized pricing services, or when such prices are not available, by reference to broker or underwriter bid indications. Short-term investments comprise securities due to mature within one year of the date of issue. Short-term investments include certain cash equivalents which are part of investment portfolios under the management of external and internal investment managers.

The Company participates in a securities lending program as a mechanism for generating additional interest income on its fixed income portfolio. Under the security lending agreements, certain of its fixed income portfolio securities are loaned to third parties, primarily major brokerage firms, for short periods of time through a lending agent. Such securities have been reclassified as "Fixed maturities and short-term investments pledged under securities lending agreements, at market value." The Company maintains legal control over the securities it lends, retains the earnings and cash flows associated with the loaned securities and receives a fee from the borrower for the temporary use of the securities. Collateral received, primarily in the form of cash, is required at a rate of 102% of the market value of the loaned securities (or 105% of the market value of the loaned securities

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when the collateral and loaned securities are denominated in non-U.S. currencies) including accrued investment income and is monitored and maintained by the lending agent. Such collateral is reinvested and is reflected as “Investment of funds received under securities lending agreements, at market value” and “Securities purchased under agreements to resell using funds received under securities lending agreements.”

The Company purchased asset-backed and commercial mortgage-backed securities under the Federal Reserve Bank of New York’s (“FRBNY”) Term Asset-Backed Securities Loan Facility (“TALF”) program. TALF provides secured financing for asset-backed securities backed by certain types of consumer and small business loans and for legacy commercial mortgage-backed securities. TALF financing is non-recourse to the Company, except in certain limited instances, and is collateralized by the purchased securities and provides financing for the purchase price of the securities, less a ‘haircut’ that varies based on the type of collateral. The Company can deliver the collateralized securities to a special purpose vehicle created by FRBNY in full defeasance of the borrowing. The Company elected to carry the securities and related borrowings at fair value under the fair value option afforded by accounting guidance regarding the fair value option for financial assets and financial liabilities. The securities purchased under TALF are reflected as “TALF investments, at market value” and the secured financing from the FRBNY is reflected as “TALF borrowings, at market value.” Changes in market value for both the securities and borrowings are included in “Net realized gains (losses),” while interest income on the TALF investments is reflected in net investment income and interest expense on the TALF borrowings is reflected in interest expense.

The Company’s investment portfolio includes certain funds that invest in fixed maturity securities which, due to their ownership structure, are accounted for by the Company using the equity method. In applying the equity method, these investments are initially recorded at cost and are subsequently adjusted based on the Company’s proportionate share of the net income or loss of the funds (which include changes in the market value of the underlying securities in the funds). Such investments are generally recorded on a one month lag with some investments reported for on a three month lag based on the availability of reports from the investment funds. Changes in the carrying value of such investments are recorded in net income as “Equity in net income (loss) of investment funds accounted for using the equity method” while changes in the carrying value of the Company’s other fixed income investments are recorded as an unrealized gain or loss component of accumulated other comprehensive income in shareholders’ equity. As such, fluctuations in the carrying value of the investment funds accounted for using the equity method may increase the volatility of the Company’s reported results of operations.

Other investments include: (i) investment funds which predominantly invest in fixed maturity securities and (ii) privately held securities and other which include the Company’s investment in Aeolus LP (see Note 11). The estimated market value of investments in privately held securities, other than those carried under the equity method, are initially valued based upon transaction price and then adjusted upwards or downwards from the transaction price to reflect expected exit values.

Investments in equity securities are carried at estimated market value in accordance with FASB guidance regarding the accounting for certain investments in debt and equity securities. The Company elected to carry certain equity securities at fair value under the fair value option afforded by accounting guidance regarding the fair value option for financial assets and liabilities.

The Company performs quarterly reviews of its investments to determine whether declines in market value below the cost basis are considered other-than-temporary in accordance with applicable accounting guidance regarding the recognition and presentation of other-than-temporary impairments (“OTTI”). The process of determining whether a security is other-than-temporarily impaired requires judgment and involves analyzing many factors. These factors include (i) an analysis of the liquidity, business prospects and overall financial

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condition of the issuer, (ii) the time period in which there was a significant decline in value, (iii) the significance of the decline and (iv) the analysis of specific credit events. The Company evaluates the unrealized losses of its equity securities by issuer and forecasts a reasonable period of time by which the fair value of the securities would increase and the Company would recover its cost. If the Company is unable to forecast a reasonable period of time in which to recover the cost of its equity securities, a net impairment loss in earnings equivalent to the entire unrealized loss is recognized.

In 2009, the Company adopted additional guidance that requires entities to separate an other-than-temporary impairment of a debt security into two components when there are credit related losses associated with the impaired debt security for which an entity asserts that it does not have the intent to sell the security, and it is more likely than not that it will not be required to sell the security before recovery of its cost basis. The effect of adoption was an increase to the amortized cost basis of debt securities that were impaired prior to 2009, net of deferred tax, of \$62.0 million. The cumulative effect adjustment had no effect on total shareholders' equity as it increased retained earnings and reduced accumulated other comprehensive income. In accordance with the additional guidance, the amount of the OTTI related to a credit loss is recognized in earnings, and the amount of the OTTI related to other factors (*e.g.*, interest rates, market conditions, etc.) is recorded as a component of other comprehensive income (loss). The amount of the credit loss of an impaired debt security is the difference between the amortized cost and the greater of (i) the present value of expected future cash flows and (ii) the fair value of the security. In instances where no credit loss exists but it is more likely than not that the Company will have to sell the debt security prior to the anticipated recovery, the decline in market value below amortized cost is recognized as an OTTI in earnings. In periods after the recognition of an OTTI on debt securities, the Company accounts for such securities as if they had been purchased on the measurement date of the OTTI at an amortized cost basis equal to the previous amortized cost basis less the OTTI recognized in earnings. For debt securities for which OTTI were recognized in earnings, the difference between the new amortized cost basis and the cash flows expected to be collected will be accreted or amortized into net investment income. See Note 6, "Investment Information—Other-Than-Temporary Impairments" for additional information.

Under FASB guidance regarding the accounting for derivative instruments and hedging activities, all derivative financial instruments, including embedded derivative instruments, are required to be recognized as either assets or liabilities in the consolidated balance sheets and measured at market value. The accounting for gains and losses associated with changes in the market value of a derivative and the effect on the consolidated financial statements depends on whether it has been designated and qualifies as part of a hedging relationship and whether the hedge is highly effective in achieving offsetting changes in the market value of the asset or liability hedged. The Company's investment strategy allows for the use of derivative instruments. Derivative instruments may be used to enhance investment performance, replicate investment positions or manage market exposures and duration risk that would be allowed under the Company's investment guidelines if implemented in other ways. Pursuant to FASB guidance, these instruments, which have no hedging designation, are recognized as assets and liabilities in the Company's balance sheet at market value, based on quoted market prices, and all realized and unrealized contract gains and losses are included in net realized gains and losses in its results of operations.

Net investment income includes interest and dividend income together with amortization of market premiums and discounts and is net of investment management and custody fees. Anticipated prepayments and expected maturities are used in applying the interest method for certain investments such as mortgage and other asset-backed securities. When actual prepayments differ significantly from anticipated prepayments, the effective yield is recalculated to reflect actual payments to date and anticipated future payments. The net investment in such securities is adjusted to the amount that would have existed had the new effective yield been applied since the acquisition of the security. Such adjustments, if any, are included in net investment income

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when determined. Equity in net income (loss) of investment funds accounted for using the equity method includes changes in the market value of certain alternative investments accounted for under the equity method.

Investment gains or losses realized on the sale of investments are determined on a first-in, first-out basis and are reflected in net income. Unrealized appreciation or decline in the value of securities, which are carried at market value, is excluded from net income and recorded as a separate component of other comprehensive income, net of applicable deferred income tax.

***(h) Reserves for Losses and Loss Adjustment Expenses***

The reserve for losses and loss adjustment expenses consists of estimates of unpaid reported losses and loss adjustment expenses and estimates for losses incurred but not reported. The reserve for unpaid reported losses and loss adjustment expenses, established by management based on reports from ceding companies and claims from insureds, excludes estimates of amounts due from insureds related to losses under high deductible policies, and represents the estimated ultimate cost of events or conditions that have been reported to or specifically identified by the Company. Such reserves are supplemented by management's estimates of reserves for losses incurred for which reports or claims have not been received. The Company's reserves are based on a combination of reserving methods, incorporating both Company and industry loss development patterns. The Company selects the initial expected loss and loss adjustment expense ratios based on information derived by its underwriters and actuaries during the initial pricing of the business, supplemented by industry data where appropriate. Such ratios consider, among other things, rate changes and changes in terms and conditions that have been observed in the market. These estimates are reviewed regularly and, as experience develops and new information becomes known, the reserves are adjusted as necessary. Such adjustments, if any, are reflected in income in the period in which they are determined. As actual loss information has been reported, the Company has developed its own loss experience and its reserving methods include other actuarial techniques. Over time, such techniques have been given further weight in its reserving process based on the continuing maturation of the Company's reserves. Inherent in the estimates of ultimate losses and loss adjustment expenses are expected trends in claims severity and frequency and other factors which may vary significantly as claims are settled. Accordingly, ultimate losses and loss adjustment expenses may differ materially from the amounts recorded in the accompanying consolidated financial statements. Losses and loss adjustment expenses are recorded on an undiscounted basis, except for excess workers' compensation and employers' liability business written by the Company's insurance operations.

***(i) Foreign Exchange***

Assets and liabilities of foreign operations whose functional currency is not the U.S. Dollar are translated at the prevailing exchange rates at each balance sheet date. Revenues and expenses of such foreign operations are translated at average exchange rates during the year. The net effect of the translation adjustments for foreign operations, net of applicable deferred income taxes, is included in accumulated other comprehensive income. Monetary assets and liabilities, such as premiums receivable and the reserve for losses and loss adjustment expenses, denominated in foreign currencies are revalued at the exchange rate in effect at the balance sheet date with the resulting foreign exchange gains and losses included in net income. Accounts that are classified as non-monetary, such as deferred acquisition costs and the unearned premium reserves, are not revalued. In the case of foreign currency denominated fixed maturity securities which are classified as "available for sale," the change in exchange rates between the local currency and the Company's functional currency at each balance sheet date is included in unrealized appreciation or decline in value of securities, a component of accumulated other comprehensive income.

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***(j) Income Taxes***

Deferred income taxes reflect the expected future tax consequences of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and amounts used for income tax purposes. A valuation allowance is recorded if it is more likely than not that some or all of a deferred tax asset may not be realized. The Company considers future taxable income and feasible tax planning strategies in assessing the need for a valuation allowance. In the event the Company determines that it will not be able to realize all or part of its deferred income tax assets in the future, an adjustment to the deferred income tax assets would be charged to income in the period in which such determination is made. In addition, if the Company subsequently assesses that the valuation allowance is no longer needed, a benefit would be recorded to income in the period in which such determination is made.

The Company recognizes a tax benefit where it concludes that it is more likely than not that the tax benefit will be sustained on audit by the taxing authority based solely on the technical merits of the associated tax position. If the recognition threshold is met, the Company recognizes a tax benefit measured at the largest amount of the tax benefit that, in the Company's judgment, is greater than 50% likely to be realized. The Company records interest and penalties related to unrecognized tax benefits in the provision for income taxes.

***(k) Share-Based Payment Arrangements***

The Company applies a fair value based measurement method in accounting for its share-based payment arrangements with eligible employees and directors. Compensation expense is estimated based on the fair value of the award at the grant date and is recognized in net income over the requisite service period with a corresponding increase in shareholder's equity. No value is attributed to awards that employees forfeit because they fail to satisfy vesting conditions. As such, the number of shares granted is reduced by assumed forfeitures and adjusted based on actual forfeitures until vesting. The Company's share-based payment arrangements generally vest over a three year period with one-third vesting on the first, second and third anniversaries of the grant date. The share-based compensation expense associated with such awards that have graded vesting features and vest based on service conditions only is calculated on a straight-line basis over the requisite service period for the entire award. For awards granted to retirement-eligible employees where no service is required for the employee to retain the award, the grant date fair value is immediately recognized as compensation expense at the grant date because the employee is able to retain the award without continuing to provide service. For employees near retirement eligibility, attribution of compensation cost is over the period from the grant date to the retirement eligibility date. These charges had no impact on the Company's cash flows or total shareholder's equity. See Note 13 for information relating to the Company's share-based payment awards.

***(l) Guaranty Fund and Other Related Assessments***

Liabilities for guaranty fund and other related assessments in the Company's insurance and reinsurance operations are accrued when the Company receives notice that an amount is payable, or earlier if a reasonable estimate of the assessment can be made.

***(m) Recent Accounting Pronouncements***

In October 2010, the Financial Accounting Standards Board ("FASB") issued an Accounting Standards Update ("ASU") that modifies the definition of the types of costs incurred by insurance entities that can be capitalized in the acquisition of new or renewal insurance contracts. The amended guidance specifies that certain costs incurred in the successful acquisition of new and renewal insurance contracts should be capitalized. Those costs include incremental direct costs of contract acquisition that result directly from and are essential to the contract transaction and would not have been incurred had the contract transaction not occurred. All other acquisition-related costs, such as costs incurred for soliciting business, administration, and unsuccessful

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acquisition or renewal efforts should be charged to expense as incurred. Administrative costs, including rent, depreciation, occupancy, equipment, and all other general overhead costs are considered indirect costs and should also be charged to expense as incurred. This ASU is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2011. Earlier adoption is permitted. Retrospective application to all prior periods presented upon the date of adoption is also permitted but is not required. The Company is evaluating the impact this new guidance will have on its consolidated statement of financial position and results of operations.

In March 2010, the FASB issued an ASU that clarifies the type of embedded credit derivative that is exempt from embedded derivative bifurcation requirements. Only one form of embedded credit derivative qualifies for the exemption—one that is related only to the subordination of one financial instrument to another. As a result, entities that have contracts containing an embedded credit derivative feature in a form other than such subordination may need to separately account for the embedded credit derivative feature. This ASU was effective as of July 1, 2010 and its adoption did not have a material impact on the Company's consolidated financial position or results of operations.

In January 2010, the FASB issued an ASU to improve disclosure requirements related to fair value measurements. The ASU requires more robust disclosures about (i) different classes of assets and liabilities measured at fair value, (ii) the valuation techniques and inputs to fair value measurements for both Levels 2 and 3, (iii) the activity within Level 3 fair value measurements (*i.e.*, in the reconciliation for fair value measurements using significant unobservable inputs activity should be presented on a gross basis), and (iv) the transfers between Levels 1, 2 and 3, (*i.e.*, include the reasons for significant transfers in and out of Levels 1 and 2). The ASU is effective for interim and annual reporting periods beginning after December 15, 2009, except for the disclosures about purchases, sales, issuances, and settlements in the roll forward activity in Level 3 fair value measurements, which will become effective for fiscal years beginning after December 15, 2010. Accordingly, the Company adopted the appropriate disclosure provisions of the ASU on January 1, 2010.

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**3. Reinsurance**

In the normal course of business, Arch Re Ltd. and its insurance subsidiaries cede a portion of their premium through pro rata and excess of loss reinsurance agreements on a treaty or facultative basis. Arch Re Ltd. and its reinsurance subsidiaries participate in “common account” retrocessional arrangements for certain pro rata treaties. Such arrangements reduce the effect of individual or aggregate losses to all companies participating on such treaties, including the reinsurers, such as Arch Re Ltd. and its reinsurance subsidiaries, and the ceding company. In addition, Arch Re Ltd. and its reinsurance subsidiaries may purchase retrocessional coverage as part of their risk management program. Reinsurance recoverables are recorded as assets, predicated on the reinsurers’ ability to meet their obligations under the reinsurance agreements. If the reinsurers are unable to satisfy their obligations under the agreements, Arch Re Ltd. and its insurance or reinsurance subsidiaries would be liable for such defaulted amounts.

The effects of reinsurance on the Company’s written and earned premiums and losses and loss adjustment expenses with unaffiliated reinsurers were as follows:

|  | <b>Year Ended December 31,</b> |                    |
|--|--------------------------------|--------------------|
|  | <b>2010</b>                    | <b>2009</b>        |
| <b>Premiums Written</b>                    |                                |                    |
| Direct.....                                | \$2,338,428                    | \$2,427,044        |
| Assumed.....                               | 928,359                        | 1,165,887          |
| Ceded .....                                | (755,747)                      | (829,819)          |
| Net.....                                   | <u>\$2,511,040</u>             | <u>\$2,763,112</u> |
| <b>Premiums Earned</b>                     |                                |                    |
| Direct.....                                | \$2,345,774                    | \$2,439,173        |
| Assumed.....                               | 976,911                        | 1,269,454          |
| Ceded .....                                | (770,202)                      | (865,882)          |
| Net.....                                   | <u>\$2,552,483</u>             | <u>\$2,842,745</u> |
| <b>Losses and Loss Adjustment Expenses</b> |                                |                    |
| Direct.....                                | \$1,538,131                    | \$1,486,349        |
| Assumed.....                               | 429,551                        | 559,776            |
| Ceded .....                                | (449,967)                      | (391,451)          |
| Net.....                                   | <u>\$1,517,715</u>             | <u>\$1,654,674</u> |

The Company monitors the financial condition of its reinsurers and attempts to place coverages only with substantial, financially sound carriers. At December 31, 2010, approximately 85.5% of the Company’s reinsurance recoverables on paid and unpaid losses (not including prepaid reinsurance premiums) of \$1.88 billion were due from carriers which had an A.M. Best rating of “A-” or better and the largest reinsurance recoverables from any one carrier was less than 5.1% of the Company’s total shareholder’s equity. At December 31, 2009, approximately 83.9% of the Company’s reinsurance recoverables on paid and unpaid losses (not including prepaid reinsurance premiums) of \$1.85 billion were due from carriers which had an A.M. Best rating of “A-” or better, and the largest reinsurance recoverable from any one carrier was less than 5.4%, of the Company’s total shareholder’s equity.

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**4. Reserve for Losses and Loss Adjustment Expenses**

The following table represents an analysis of losses and loss adjustment expenses and a reconciliation of the beginning and ending reserve for losses and loss adjustment expenses.

|  | <u>December 31,</u> |                    |
|--|---------------------|--------------------|
|  | <u>2010</u>         | <u>2009</u>        |
| Reserve for losses and loss adjustment expenses at beginning of year .....                 | \$7,997,172         | \$7,798,496        |
| Unpaid losses and loss adjustment expenses recoverable .....                               | <u>1,783,260</u>    | <u>1,860,674</u>   |
| Net reserve for losses and loss adjustment expenses at beginning of year.....              | 6,213,912           | 5,937,822          |
| Net incurred losses and loss adjustment expenses incurred relating to losses occurring in: |                     |                    |
| Current year .....   | 1,664,411           | 1,843,875          |
| Prior years .....  | <u>(146,696)</u>    | <u>(189,201)</u>   |
| Total net incurred losses and loss adjustment expenses .....                               | 1,517,715           | 1,654,674          |
| Foreign exchange (gains) losses .....  | (29,089)            | 60,506             |
| Net paid losses and loss adjustment expenses relating to losses occurring in:              |                     |                    |
| Current year .....   | (200,789)           | (272,295)          |
| Prior years .....  | <u>(1,106,496)</u>  | <u>(1,166,795)</u> |
| Total net paid losses and loss adjustment expenses .....                                   | (1,307,285)         | (1,439,090)        |
| Net reserve for losses and loss adjustment expenses at end of year .....                   | 6,395,253           | 6,213,912          |
| Unpaid losses and loss adjustment expenses recoverable .....                               | <u>1,815,845</u>    | <u>1,783,260</u>   |
| Reserve for losses and loss adjustment expenses at end of year .....                       | <u>\$8,211,098</u>  | <u>\$7,997,172</u> |

***2010 Prior Year Reserve Development***

During 2010, the Company recorded estimated net favorable development on prior year loss reserves of \$146.7 million, which consisted of \$127.6 million from the reinsurance operations and \$19.1 million from the insurance operations.

The reinsurance operations' net favorable development of \$127.6 million, or 14.2 points, consisted of \$84.2 million from short-tailed lines, \$34.1 million from long-tailed lines and \$9.3 million from medium-tailed lines. Favorable development in short-tailed lines included \$61.0 million of favorable development from property catastrophe and property other than property catastrophe reserves. Such amount included reductions of \$9.4 million, \$11.2 million and \$28.6 million from the 2007, 2008 and 2009 underwriting years, respectively, and \$11.8 million from prior underwriting years. In addition, favorable development in other specialty business included \$4.7 million and \$7.8 million from the 2008 and 2009 underwriting years, respectively, and \$10.7 million from prior underwriting years. The reduction of loss estimates for the reinsurance operations' short-tailed lines primarily resulted from a lower level of reported and paid claims activity than previously anticipated which led to decreases in certain loss ratio selections during 2010. Net favorable development of \$34.1 million in long-tailed lines included reductions in casualty reserves from the 2002 to 2006 underwriting years of \$10.8 million, \$17.5 million, \$33.3 million, \$13.5 million and \$5.8 million, respectively, which primarily resulted from a lower level of reported and paid claims activity than previously anticipated on U.S. and international excess liability, professional liability

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and D&O lines. Such amounts were partially offset by adverse development of \$7.5 million, \$31.9 and \$5.6 million from the 2007 to 2009 underwriting years, respectively, on long-tailed lines which primarily resulted from increases in loss selections due to the reinsurance operations' view of the current insurance environment. Favorable development on medium-tailed lines resulted from reductions in marine and aviation reserves of \$8.3 million from the 2007 underwriting year and \$7.7 million from other underwriting years, partially offset by adverse development of \$6.7 million from the 2008 underwriting year. The reinsurance operations' reserves for more mature underwriting years are now based more on actual loss activity and historical patterns than on the initial assumptions based on pricing indications.

The insurance operations' net favorable development of \$19.1 million, or 1.2 points, reflected reductions in property reserves from the 2005 to 2009 accident years (*i.e.*, the year in which a loss occurred) of \$5.3 million, \$6.8 million, \$7.9 million, \$23.4 million and \$4.3 million, respectively, and reductions in healthcare and other lines of \$11.4 million and \$11.5 million, respectively, which were spread across a number of accident years. In addition, the insurance operations had reductions in professional liability reserves from the 2007 and 2008 accident years of \$11.2 million and \$7.9 million, respectively, partially offset by adverse development from the 2006 accident year of \$8.4 million. The loss ratio for the year ended December 31, 2010 reflected adverse development in casualty reserves from the 2003 to 2005 accident years of \$16.6 million, \$9.8 million and \$11.0 million, respectively, which was primarily due to a small number of high severity claims in excess casualty and a high frequency of small claims in specialty casualty. Additionally, there was adverse development in program reserves from the 2003, 2005 and 2009 accident years of \$7.6 million, \$6.7 million and \$9.3 million, respectively, partially offset by reductions from the 2006 to 2008 accident years of \$6.1 million, \$4.7 million and \$4.2 million, respectively. In addition, the insurance operations had adverse development in executive assurance reserves from the 2008 and 2009 accident years of \$14.1 million and \$21.3 million, respectively, partially offset by reductions from the 2003, 2004, 2006 and 2007 accident years of \$2.0 million, \$2.6 million, \$3.4 million and \$7.6 million, respectively.

***2009 Prior Year Reserve Development***

During 2009, the Company recorded estimated net favorable development on prior year loss reserves of \$189.2 million, which consisted of \$142.1 million from the reinsurance operations and \$47.1 million from the insurance operations.

The reinsurance operations' net favorable development of \$142.1 million, or 12.3 points, consisted of \$83.4 million from short-tailed lines and \$78.7 million came from long-tailed lines, partially offset by \$20.0 million of adverse development on medium-tailed lines. Favorable development in short-tailed lines included \$58.5 million of favorable development from property catastrophe and other property lines. Such amount included reductions in 2005 to 2008 underwriting years of \$8.1 million, \$5.6 million, \$21.0 million and \$20.9 million, respectively. In addition, favorable development in short-tailed lines included \$22.7 million from other specialty business, which included reductions of \$9.7 million, \$4.3 million and \$5.3 million from the 2004, 2005 and 2008 underwriting years. The reduction of loss estimates for the reinsurance operations' short-tailed lines primarily resulted from a lower level of reported and paid claims activity than previously anticipated which led to decreases in certain loss ratio selections during 2009. Net favorable development of \$78.7 million in long-tailed lines included reductions in casualty reserves of \$14.4 million, \$25.9 million, \$25.0 million and \$32.3 million from the 2002 to 2005 underwriting years which primarily resulted from a lower level of reported and paid claims activity than previously anticipated on U.S. and international excess liability, professional liability and D&O lines. Such amounts were partially offset by adverse development of \$25.0 million from the 2007 underwriting year, which primarily resulted from increases in loss selections due to the reinsurance operations' view of the insurance environment. Adverse development on medium-tailed lines resulted from increases on marine exposures in the 2007 and 2008 underwriting years of \$7.2 million and \$26.9 million, respectively, due in part to increases in Hurricane Ike estimates, partially offset by reductions in prior underwriting years.

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The insurance operations' net favorable development of \$47.1 million, or 2.8 points, was primarily due to reductions in reserves in medium-tailed and short-tailed lines of business. Such amount included favorable development in professional liability reserves from the 2005 to 2007 accident years of \$6.3 million, \$16.1 million and \$8.6 million, respectively, and adverse development on the 2008 accident year of \$9.4 million. In addition, favorable development on construction reserves from the 2005 and 2006 accident years contributed \$10.6 million and \$5.4 million, respectively, which resulted from lower than expected large loss activity. Favorable development in short-tailed lines primarily consisted of reductions in property reserves from the 2007 and 2008 accident years of \$9.4 million and \$11.1 million, respectively. Offsetting favorable development on medium-tailed and short-tailed lines of business were increases in executive assurance reserves for the 2007 and 2008 accident years of \$14.8 million and \$28.3 million, respectively, due to large specific risk loss activity relating to the credit crisis, partially offset by favorable development in the 2004 to 2006 accident years of \$4.1 million, \$17.5 million and \$3.6 million, respectively. Reductions in the 2004 to 2006 accident years relate to less large loss activity than expected in commercial D&O, a distinctive downward trend in security class action cases filed from 2004 through 2006, and to the claims-made nature of the coverage. The claims-made aspect eliminates the potential of new claims being reported for these years, and narrows the remaining liability to changes in reserve estimation for claims which have already been reported.

#### **5. Investment in Joint Venture**

In May 2008, Arch Re Ltd. provided \$100.0 million of funding to Gulf Reinsurance Limited ("Gulf Re"), a newly formed reinsurer based in the Dubai International Financial Centre, pursuant to the joint venture agreement with Gulf Investment Corporation GSC ("GIC"). Under the agreement, Arch Re Ltd. and GIC each own 50% of Gulf Re, which commenced underwriting activities in June 2008. Gulf Re provides property and casualty reinsurance primarily in the member states of the Gulf Cooperation Council, which include Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates. The initial capital of the joint venture consisted of \$200.0 million with an additional \$200.0 million commitment to be funded equally by Arch Re Ltd. and GIC depending on the joint venture's business needs. Arch Re Ltd. accounts for its investment in Gulf Re, shown as "Investment in joint venture," using the equity method and records its equity in the operating results of Gulf Re in "Other income" on a quarter lag basis.

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**6. Investment Information**

The following table summarizes the Company's invested assets:

|  | <b>December 31,</b> |                     |
|--|---------------------|---------------------|
|  | <b>2010</b>         | <b>2009</b>         |
| Fixed maturities available for sale, at market value .....   | \$9,075,234         | \$9,384,743         |
| Fixed maturities pledged under securities lending agreements, at market value <b>(1)</b> ..          | 75,575              | 208,826             |
| Total fixed maturities .....   | 9,150,809           | 9,593,569           |
| Short-term investments available for sale, at market value .....                                     | 907,943             | 549,867             |
| Short-term investments pledged under securities lending agreements, at market value <b>(1)</b> ..... | —                   | 3,994               |
| TALF investments, at market value .....  | 402,449             | 250,265             |
| Equity securities available for sale, at market value .....  | 363,255             | 36,623              |
| Other investments .....  | 349,272             | 135,549             |
| Investment funds accounted for using the equity method .....   | 434,600             | 391,869             |
| Total investments <b>(1)</b> .....   | 11,608,328          | 10,961,736          |
| Securities transactions entered into but not settled at the balance sheet date .....                 | (144,049)           | 50,790              |
| Total investments, net of securities transactions .....  | <u>\$11,464,279</u> | <u>\$11,012,526</u> |

- (1) In securities lending transactions, the Company receives collateral in excess of the market value of the fixed maturities and short-term investments pledged under securities lending agreements. For purposes of this table, the Company has excluded the collateral received and reinvested at December 31, 2010 and December 31, 2009 of \$69.7 million and \$207.0 million, respectively, and included the \$75.6 million and \$212.8 million, respectively, of "fixed maturities and short-term investments pledged under securities lending agreements, at market value."

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***Fixed Maturities and Fixed Maturities Pledged Under Securities Lending Agreements***

The following table summarizes the Company's fixed maturities and fixed maturities pledged under securities lending agreements, excluding TALF investments:

|  | <u>Estimated<br/>Market<br/>Value</u> | <u>Gross<br/>Unrealized<br/>Gains</u> | <u>Gross<br/>Unrealized<br/>Losses</u> | <u>Amortized<br/>Cost</u> | <u>OTTI<br/>Unrealized<br/>Losses (1)</u> |
|--|---------------------------------------|---------------------------------------|--|---------------------------|---|
| <b><u>At December 31, 2010</u></b>   |                                       |                                       |  |                           |   |
| Fixed maturities and fixed maturities pledged under securities lending agreements: |                                       |                                       |  |                           |   |
| Corporate bonds.....   | \$2,835,790                           | \$97,286                              | (\$18,301)                             | \$2,756,805               | (\$18,047)                                |
| Mortgage backed securities .....   | 1,806,589                             | 18,801                                | (26,892)                               | 1,814,680                 | (21,147)                                  |
| Municipal bonds .....  | 1,182,100                             | 40,410                                | (6,958)                                | 1,148,648                 | (125)                                     |
| Commercial mortgage backed securities .....  | 1,167,299                             | 31,743                                | (6,028)                                | 1,141,584                 | (3,481)                                   |
| U.S. government and government agencies...   | 868,423                               | 20,087                                | (5,646)                                | 853,982                   | (207)                                     |
| Non-U.S. government securities .....   | 732,666                               | 39,539                                | (11,894)                               | 705,021                   | (72)                                      |
| Asset backed securities .....  | 557,942                               | 20,672                                | (3,990)                                | 541,260                   | (3,954)                                   |
| Total .....  | <u>\$9,150,809</u>                    | <u>\$268,538</u>                      | <u>(\$79,709)</u>                      | <u>\$8,961,980</u>        | <u>(\$47,033)</u>                         |
| Equity securities:   |                                       |                                       |  |                           |   |
| Total .....  | <u>\$363,255</u>                      | <u>\$20,660</u>                       | <u>(\$3,424)</u>                       | <u>\$346,019</u>          |   |
| <b><u>At December 31, 2009</u></b>   |                                       |                                       |  |                           |   |
| Fixed maturities and fixed maturities pledged under securities lending agreements: |                                       |                                       |  |                           |   |
| Corporate bonds.....   | \$3,130,901                           | \$99,355                              | (\$12,922)                             | \$3,044,468               | (\$19,667)                                |
| Mortgage backed securities .....   | 1,449,382                             | 13,158                                | (45,536)                               | 1,481,760                 | (43,930)                                  |
| Municipal bonds .....  | 957,752                               | 44,043                                | (2,284)                                | 915,993                   | (145)                                     |
| Commercial mortgage backed securities .....  | 1,185,799                             | 35,161                                | (11,724)                               | 1,162,362                 | (3,750)                                   |
| U.S. government and government agencies...   | 1,549,676                             | 8,628                                 | (12,981)                               | 1,554,029                 | (499)                                     |
| Non-U.S. government securities .....   | 752,215                               | 41,858                                | (7,712)                                | 718,069                   | (351)                                     |
| Asset backed securities .....  | 567,844                               | 21,713                                | (8,220)                                | 554,351                   | (6,111)                                   |
| Total .....  | <u>\$9,593,569</u>                    | <u>\$263,916</u>                      | <u>(\$101,379)</u>                     | <u>\$9,431,032</u>        | <u>(\$74,453)</u>                         |
| Equity securities:   |                                       |                                       |  |                           |   |
| Total .....  | <u>\$36,623</u>                       | <u>\$145</u>                          | <u>—</u>                               | <u>\$36,478</u>           |   |

(1) Represents the total other-than-temporary impairments ("OTTI") recognized in accumulated other comprehensive income ("AOCI"). It does not include the change in market value subsequent to the impairment measurement date. At December 31, 2010, the net unrealized loss related to securities for which a non-credit OTTI was recognized in AOCI was \$7.1 million, compared to \$37.9 million at December 31, 2009.

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The following table provides an analysis of the length of time each of those fixed maturities, fixed maturities pledged under securities lending agreements (excluding TALF investments), equity securities and short-term investments with an unrealized loss has been in a continual unrealized loss position:

|  | Less than 12 Months          |                               | 12 Months or More            |                               | Total                        |                               |
|--|------------------------------|-------------------------------|------------------------------|-------------------------------|------------------------------|-------------------------------|
|  | Estimated<br>Market<br>Value | Gross<br>Unrealized<br>Losses | Estimated<br>Market<br>Value | Gross<br>Unrealized<br>Losses | Estimated<br>Market<br>Value | Gross<br>Unrealized<br>Losses |
| <b><u>At December 31, 2010</u></b>   |                              |                               |                              |                               |                              |                               |
| Fixed maturities and fixed maturities pledged under securities lending agreements: |                              |                               |                              |                               |                              |                               |
| Corporate bonds.....   | \$530,100                    | (\$16,538)                    | \$20,351                     | (\$1,763)                     | \$550,451                    | (\$18,301)                    |
| Mortgage backed securities .....   | 912,964                      | (20,330)                      | 57,895                       | (6,562)                       | 970,859                      | (26,892)                      |
| Municipal bonds .....  | 294,978                      | (6,440)                       | 8,465                        | (518)                         | 303,443                      | (6,958)                       |
| Commercial mortgage backed securities .....  | 311,703                      | (5,273)                       | 22,030                       | (755)                         | 333,733                      | (6,028)                       |
| U.S. government and government agencies .....                                      | 188,705                      | (5,646)                       | —                            | —                             | 188,705                      | (5,646)                       |
| Non-U.S. government securities .....   | 271,446                      | (7,418)                       | 45,884                       | (4,476)                       | 317,330                      | (11,894)                      |
| Asset backed securities .....  | 75,565                       | (827)                         | 8,126                        | (3,163)                       | 83,691                       | (3,990)                       |
| Total fixed maturities .....   | 2,585,461                    | (62,472)                      | 162,751                      | (17,237)                      | 2,748,212                    | (79,709)                      |
| Equity securities.....   | 68,629                       | (3,424)                       | —                            | —                             | 68,629                       | (3,424)                       |
| Other investments .....  | 46,750                       | (916)                         | 2,850                        | (416)                         | 49,600                       | (1,332)                       |
| Short-term investments .....   | 42,030                       | (492)                         | —                            | —                             | 42,030                       | (492)                         |
| Total .....  | \$2,742,870                  | (\$67,304)                    | \$165,601                    | (\$17,653)                    | \$2,908,471                  | (\$84,957)                    |
| <b><u>At December 31, 2009</u></b>   |                              |                               |                              |                               |                              |                               |
| Fixed maturities and fixed maturities pledged under securities lending agreements: |                              |                               |                              |                               |                              |                               |
| Corporate bonds.....   | \$546,087                    | (\$7,681)                     | \$45,399                     | (\$5,241)                     | \$591,486                    | (\$12,922)                    |
| Mortgage backed securities .....   | 636,817                      | (33,388)                      | 62,382                       | (12,148)                      | 699,199                      | (45,536)                      |
| Municipal bonds .....  | 151,412                      | (2,284)                       | —                            | —                             | 151,412                      | (2,284)                       |
| Commercial mortgage backed securities .....  | 154,087                      | (4,808)                       | 67,744                       | (6,916)                       | 221,831                      | (11,724)                      |
| U.S. government and government agencies.....                                       | 1,111,711                    | (12,492)                      | 5,309                        | (489)                         | 1,117,020                    | (12,981)                      |
| Non-U.S. government securities...  | 218,394                      | (7,712)                       | —                            | —                             | 218,394                      | (7,712)                       |
| Asset backed securities .....  | 101,679                      | (5,838)                       | 22,915                       | (2,382)                       | 124,594                      | (8,220)                       |
| Total fixed maturities .....   | 2,920,187                    | (74,203)                      | 203,749                      | (27,176)                      | 3,123,936                    | (101,379)                     |
| Equity securities .....  | —                            | —                             | —                            | —                             | —                            | —                             |
| Other investments .....  | 9,071                        | (304)                         | 29,439                       | (5,195)                       | 38,510                       | (5,499)                       |
| Short-term investments.....  | 64,616                       | (1,858)                       | —                            | —                             | 64,616                       | (1,858)                       |
| Total .....  | \$2,993,874                  | (\$76,365)                    | \$233,188                    | (\$32,371)                    | \$3,227,062                  | (\$108,736)                   |

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The contractual maturities of the Company's fixed maturities and fixed maturities pledged under securities lending agreements are shown in the following table. Expected maturities, which are management's best estimates, will differ from contractual maturities because borrowers may have the right to call or prepay obligations with or without call or prepayment penalties.

| <b>Maturity</b>                             | <b>December 31, 2010</b>          |                           | <b>December 31, 2009</b>          |                           |
|---|-----------------------------------|---------------------------|-----------------------------------|---------------------------|
|   | <b>Estimated<br/>Market Value</b> | <b>Amortized<br/>Cost</b> | <b>Estimated<br/>Market Value</b> | <b>Amortized<br/>Cost</b> |
| Due in one year or less .....               | \$415,453                         | \$399,857                 | \$227,668                         | \$220,095                 |
| Due after one year through five years ..... | 2,992,237                         | 2,901,451                 | 3,983,984                         | 3,880,956                 |
| Due after five years through 10 years ..... | 1,721,244                         | 1,673,055                 | 1,842,705                         | 1,798,650                 |
| Due after 10 years .....                    | 490,045                           | 490,093                   | 336,187                           | 332,858                   |
|   | <u>5,618,979</u>                  | <u>5,464,456</u>          | <u>6,390,544</u>                  | <u>6,232,559</u>          |
| Mortgage backed securities .....            | 1,806,589                         | 1,814,680                 | 1,449,382                         | 1,481,760                 |
| Commercial mortgage backed securities.....  | 1,167,299                         | 1,141,584                 | 1,185,799                         | 1,162,362                 |
| Asset backed securities .....               | 557,942                           | 541,260                   | 567,844                           | 554,351                   |
| Total.....                                  | <u>\$9,150,809</u>                | <u>\$8,961,980</u>        | <u>\$9,593,569</u>                | <u>\$9,431,032</u>        |

The Company had gross unrealized losses on its fixed maturities and fixed maturities pledged under securities lending agreements of \$79.7 million at December 31, 2010. At December 31, 2010, on a lot level basis, approximately 1,090 security lots out of a total of approximately 5,010 security lots were in an unrealized loss position and the largest single unrealized loss from a single lot in the Company's fixed maturity portfolio was \$2.6 million. The Company had gross unrealized losses on its fixed maturities and fixed maturities pledged under securities lending agreements of \$101.4 million at December 31, 2009. At December 31, 2009, on a lot level basis, approximately 1,420 security lots out of a total of approximately 4,520 security lots were in an unrealized loss position and the largest single unrealized loss from a single lot in the Company's fixed maturity portfolio was \$2.2 million.

***Other-Than-Temporary Impairments***

The Company performed quarterly reviews of its investments in order to determine whether declines in market value below the amortized cost basis were considered other-than-temporary in accordance with applicable guidance. For 2010, the Company recorded \$11.3 million of net impairment losses recognized in earnings, compared to \$66.1 million for 2009. A description of the methodology and significant inputs used to measure the amount of OTTI related to credit losses in 2010 is as follows:

- Mortgage backed securities – the Company recorded \$6.1 million of OTTI related to credit losses in 2010. The Company utilized underlying data, where available, for each security provided by asset managers, cash flow projections and additional information from credit agencies in order to determine an expected recovery value for each security. The analysis provided by the asset managers includes expected cash flow projections under base case and stress case scenarios which modify expected default expectations and loss severities and slow down prepayment assumptions. The significant inputs in the models include the expected default rates, delinquency rates and foreclosure costs. During 2010, the expected recovery values were reduced on a number of mortgage backed securities due to reductions in the expected recovery values on such securities in each period. These reductions followed the quarterly review of information received which indicated increases in expected default expectations and foreclosure costs. On an ongoing basis, the Company reviews the process used by each asset manager in developing their analysis and, following such reviews, the Company determines what the expected

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recovery values are for each security, which incorporates both base case and stress case scenarios. The amortized cost basis of the mortgage backed securities were adjusted down, if required, to the expected recovery value calculated in the OTTI review process;

- Asset backed securities – the Company recorded \$2.2 million of OTTI related to credit losses in 2010. The Company utilized underlying data, where available, for each security provided by asset managers, cash flow projections and additional information from credit agencies in order to determine an expected recovery value for each security. The analysis on home equity asset backed securities includes expected cash flow projections under base case and stress case scenarios which modify expected default expectations and loss severities and slow down prepayment assumptions. The significant inputs in the models include the expected default rates, delinquency rates and foreclosure costs. During 2010, the expected recovery values were reduced on a number of asset backed securities backed by sub-prime or Alt-A collateral due to reductions in the expected recovery values on such securities. These reductions followed the quarterly review of information received which indicated increases in expected default rates, foreclosure costs and other factors. On an ongoing basis, the Company reviews the process used by each asset manager in developing their analysis and, following such reviews, the Company determines what the expected recovery values are for each security, which incorporates both base case and stress case scenarios. For non-home equity asset backed securities, the Company used reports and analysis from asset managers and rating agencies in order to determine an expected recovery value for such securities. The amortized cost basis of the asset backed securities were adjusted down, if required, to the expected recovery value calculated in the OTTI review process;
- Investment of funds received under securities lending agreements – the Company recorded \$1.7 million related to credit losses in 2010. At December 31, 2010, the reinvested collateral included sub-prime securities with a market value of \$13.2 million and an average credit quality of “B-” from Standard & Poor’s and “Caa2” from Moody’s. The Company utilized analysis from its securities lending program manager in order to determine an expected recovery value for certain securities which are on a watch-list. The analysis provided expected cash flow projections for the securities using similar criteria as described in the mortgage backed securities section above. The amortized cost basis of the investment of funds received under securities lending agreements was adjusted down, if required, to the expected recovery value calculated in the OTTI review process; and
- Corporate bonds – the Company recorded \$1.3 million of OTTI related to credit losses in 2010. The Company reviewed the business prospects, credit ratings, estimated loss given default factors, foreign currency impacts and information received from asset managers and rating agencies for each security. The amortized cost basis of the corporate bonds were adjusted down, if required, to the expected recovery value calculated in the OTTI review process.

The Company believes that the \$47.0 million of OTTI included in accumulated other comprehensive income at December 31, 2010 on the securities which were considered by the Company to be impaired was due to market and sector-related factors, including limited liquidity and wide credit spreads (*i.e.*, not credit losses). At December 31, 2010, the Company did not have the intent to sell such securities, and determined that it is more likely than not that the Company will not be required to sell the securities before recovery of their cost basis.

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The following table provides a roll forward of the amount related to credit losses recognized in earnings for which a portion of an OTTI was recognized in accumulated other comprehensive:

|  | Year Ended<br>December 31, |                 |
|--|----------------------------|-----------------|
|  | 2010                       | 2009            |
| Balance at beginning of period.....  | \$84,147                   | \$35,474        |
| Credit loss impairments recognized on securities not previously impaired .....   | 2,501                      | 16,221          |
| Credit loss impairments recognized on securities previously impaired .....   | 8,820                      | 35,530          |
| Reductions for increases in cash flows expected to be collected that are<br>recognized over the remaining life of the security ..... | —                          | —               |
| Reductions for securities sold during the period .....   | (9,428)                    | (3,078)         |
| Balance at end of period .....   | <u>\$86,040</u>            | <u>\$84,147</u> |

***Securities Lending Agreements***

At December 31, 2010, the market value and amortized cost of fixed maturities and short-term investments pledged under securities lending agreements were \$75.6 million and \$72.5 million. At December 31, 2009, the market value and amortized cost of fixed maturities and short-term investments pledged under securities lending agreements were \$212.8 million and \$214.7 million, respectively. At December 31, 2010, the reinvested collateral included sub-prime securities with a market value of \$13.2 million, compared to \$18.9 million at December 31, 2009.

***TALF Program***

As of December 31, 2010, the Company had \$402.4 million of securities under TALF which are reflected as “TALF investments, at market value” and \$325.8 million of secured financing from the FRBNY which is reflected as “TALF borrowings, at market value.” As of December 31, 2009, the Company had \$250.3 million of TALF investments, at market value, and \$217.6 million of TALF borrowings, at market value. Changes in market value for both the securities and borrowings are included in “Net realized gains (losses)” while interest income on the TALF investments is reflected in net investment income and interest expense on the TALF borrowings is reflected in interest expense. The Company recorded net realized gains for the year ended December 31, 2010 of \$9.4 million on the TALF program, consisting of realized gains of \$10.2 million and realized losses of \$0.7 million on the TALF investments and TALF borrowings, respectively. See Note 12, “Commitments and Contingencies—TALF Program,” for further details.

***Other Investments***

Other investments include: (i) investment funds which primarily invest in fixed income securities and (ii) other securities which include the Company’s investment in Aeolus LP (see Note 11). The following table details the Company’s other investments:

|                                    | December 31, 2010         |                  | December 31, 2009         |                  |
|------------------------------------|---------------------------|------------------|---------------------------|------------------|
|                                    | Estimated<br>Market Value | Cost             | Estimated<br>Market Value | Cost             |
| Fixed income investment funds..... | \$266,267                 | \$250,349        | \$63,146                  | \$60,571         |
| Other.....                         | 83,005                    | 75,975           | 72,403                    | 65,456           |
| Total .....                        | <u>\$349,272</u>          | <u>\$326,324</u> | <u>\$135,549</u>          | <u>\$126,027</u> |

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***Investment Funds Accounted for Using the Equity Method***

The Company recorded \$61.4 million of equity in net income for 2010 related to investment funds accounted for using the equity method, compared to \$167.8 million of equity in net income for 2009. Due to the ownership structure of these investment funds, which invest in fixed maturity securities, the Company uses the equity method. In applying the equity method, these investments are initially recorded at cost and are subsequently adjusted based on the Company's proportionate share of the net income or loss of the funds (which include changes in the market value of the underlying securities in the funds). Such investments are generally recorded on a one month lag with some investments reported for on a three month lag based on the availability of reports from the investment funds. Changes in the carrying value of such investments are recorded in net income as "Equity in net income (loss) of investment funds accounted for using the equity method" while changes in the carrying value of the Company's other fixed income investments are recorded as an unrealized gain or loss component of accumulated other comprehensive income in shareholders' equity. As such, fluctuations in the carrying value of the investment funds accounted for using the equity method may increase the volatility of the Company's reported results of operations. Investment funds accounted for using the equity method totaled \$434.6 million at December 31, 2010, compared to \$391.9 million at December 31, 2009. The Company's investment commitments, which are primarily related to investment funds accounted for using the equity method were approximately \$95.5 million at December 31, 2010.

A summary of aggregate financial information for the Company's investment funds accounted for using the equity method as of September 30, 2010 and 2009 and for the nine months ended September 30, 2010 and 2009 is as follows:

|                        | <b>September 30,</b> |             |
|------------------------|----------------------|-------------|
|                        | <b>2010</b>          | <b>2009</b> |
| Invested assets .....  | \$6,313,409          | \$4,302,646 |
| Total assets .....     | 6,313,825            | 4,303,265   |
| Total liabilities..... | 142,378              | 607         |
| Net assets.....        | \$6,171,447          | \$4,302,658 |

|                         | <b>Nine Months Ended</b> |             |
|-------------------------|--------------------------|-------------|
|                         | <b>September 30,</b>     |             |
|                         | <b>2010</b>              | <b>2009</b> |
| Total revenues .....    | \$689,557                | \$1,611,145 |
| Total expenses .....    | 177,781                  | 40,869      |
| Net income (loss) ..... | \$511,776                | \$1,570,276 |

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***Restricted Assets***

The Company is required to maintain assets on deposit, which primarily consist of fixed maturities, with various regulatory authorities to support its insurance and reinsurance operations. The Company has investments in segregated portfolios which are primarily used to provide collateral or guarantees for letters of credit to third parties. See Note 12, "Commitments and Contingencies—Letter of Credit and Revolving Credit Facilities," for further details. In addition, the Company maintains assets on deposit which are available to settle insurance and reinsurance liabilities to third parties. In addition, certain of the Company's operating subsidiaries maintain assets in trust accounts as collateral for insurance and reinsurance transactions with affiliated companies. At December 31, 2010 and 2009, such amounts approximated \$4.38 billion and \$4.28 billion, respectively. The following table details the value of restricted assets:

|   | <b>December 31,</b> |                    |
|---|---------------------|--------------------|
|   | <b>2010</b>         | <b>2009</b>        |
| Assets used for collateral or guarantees .....      | \$948,020           | \$1,017,482        |
| Deposits with U.S. regulatory authorities .....     | 263,077             | 279,136            |
| Deposits with non-U.S. regulatory authorities ..... | 122,341             | 76,094             |
| Trust funds .....                                   | 48,140              | 115,585            |
| Total restricted assets .....                       | <u>\$1,381,578</u>  | <u>\$1,488,297</u> |

***Net Investment Income***

The components of net investment income were derived from the following sources:

|                               | <b>Year Ended December 31,</b> |                  |
|-------------------------------|--------------------------------|------------------|
|                               | <b>2010</b>                    | <b>2009</b>      |
| Fixed maturities .....        | \$378,471                      | \$404,658        |
| Short-term investments .....  | 1,325                          | 1,888            |
| Other (1) .....               | 5,244                          | 4,413            |
| Gross investment income ..... | 385,040                        | 410,959          |
| Investment expenses .....     | (19,652)                       | (21,001)         |
| Net investment income.....    | <u>\$365,388</u>               | <u>\$389,958</u> |

(1) Primarily consists of interest income on operating cash accounts, other investments, equity securities and securities lending transactions.

***Net Realized Gains***

Net realized gains were as follows:

|                         | <b>Year Ended December 31,</b> |                  |
|-------------------------|--------------------------------|------------------|
|                         | <b>2010</b>                    | <b>2009</b>      |
| Fixed maturities.....   | \$186,167                      | \$135,373        |
| Equity securities ..... | 14,129                         | 4,420            |
| Other investments.....  | 9,187                          | 746              |
| Other (1) .....         | 42,975                         | 2,990            |
| Net realized gains..... | <u>\$252,458</u>               | <u>\$143,529</u> |

(1) Primarily consists of net realized gains or losses related to investment-related derivatives and foreign currency forward contracts (see Note 8) and changes in the market value of TALF investments and TALF borrowings.

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Proceeds from the sales of fixed maturities during 2010 and 2009 were \$16.64 billion and \$19.77 billion, respectively. Gross gains of \$284.4 million and \$370.5 million were realized on those transactions during 2010 and 2009, respectively. Gross losses of \$98.2 million and \$235.1 million were realized during 2010 and 2009, respectively. Realized gains or losses on fixed maturities include changes in the market value of certain hybrid securities pursuant to applicable guidance. The fair market values of such hybrid securities at December 31, 2010 were approximately \$122.4 million, compared to \$84.8 million at December 31, 2009. The Company recorded realized losses of \$0.5 million on such securities in 2010, compared to realized gains of \$14.8 million in 2009.

Proceeds from the sales of equity securities during 2010 and 2009 were \$70.4 million and \$38.3 million, respectively. The Company elected to carry certain equity securities at fair value under the fair value option afforded by accounting guidance regarding the fair value option for financial assets and liabilities. The fair market values of such securities at December 31, 2010 were approximately \$66.3 million, compared to \$36.4 million at December 31, 2009. The Company recorded \$14.2 million of realized gains for 2010 on such securities, compared to \$4.4 million of realized gains for 2009.

## 7. Fair Value

Accounting guidance regarding fair value measurements addresses how companies should measure fair value when they are required to use a fair value measure for recognition or disclosure purposes under GAAP and provides a common definition of fair value to be used throughout GAAP. It defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly fashion between market participants at the measurement date. In addition, it establishes a three-level valuation hierarchy for the disclosure of fair value measurements. The valuation hierarchy is based upon the transparency of inputs to the valuation of an asset or liability as of the measurement date. The level in the hierarchy within which a given fair value measurement falls is determined based on the lowest level input that is significant to the measurement (Level 1 being the highest priority and Level 3 being the lowest priority).

The three levels are defined as follows:

- Level 1: Inputs to the valuation methodology are observable inputs that reflect quoted prices (unadjusted) for *identical* assets or liabilities in *active markets*
- Level 2: Inputs to the valuation methodology include quoted prices for similar assets and liabilities in active markets, and inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the financial instrument
- Level 3: Inputs to the valuation methodology are unobservable and significant to the fair value measurement

### ***Fair Value Measurements on a Recurring Basis***

Following is a description of the valuation methodologies used for securities measured at fair value, as well as the general classification of such securities pursuant to the valuation hierarchy.

The Company determines the existence of an active market based on its judgment as to whether transactions for the financial instrument occur in such market with sufficient frequency and volume to provide reliable pricing information. The independent pricing sources obtain market quotations and actual transaction prices for securities that have quoted prices in active markets. The Company uses quoted values and other data

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provided by nationally recognized independent pricing sources as inputs into its process for determining fair values of its fixed maturity investments. To validate the techniques or models used by pricing sources, the Company's review process includes, but is not limited to: (i) quantitative analysis (*e.g.*, comparing the quarterly return for each managed portfolio to its target benchmark, with significant differences identified and investigated); (ii) a review of the average number of prices obtained in the pricing process and the range of resulting market values; (iii) initial and ongoing evaluation of methodologies used by outside parties to calculate fair value including a review of deep dive reports on selected securities which indicated the use of observable inputs in the pricing process; (iv) comparing the fair value estimates to its knowledge of the current market; (v) a comparison of the pricing services' fair values to other pricing services' fair values for the same investments; and (vi) back-testing, which includes randomly selecting purchased or sold securities and comparing the executed prices to the fair value estimates from the pricing service. At December 31, 2010, the Company obtained an average of 2.7 quotes per investment, compared to 2.6 quotes at December 31, 2009. Where multiple quotes or prices were obtained, a price source hierarchy was maintained in order to determine which price source provided the fair value (*i.e.*, a price obtained from a pricing service with more seniority in the hierarchy will be used from a less senior one in all cases). The hierarchy prioritizes pricing services based on availability and reliability and assigns the highest priority to index providers. Based on the above review, the Company will challenge any prices for a security or portfolio which are considered not to be representative of fair value. The Company did not adjust the prices or quotes provided by the pricing services at December 31, 2010 or December 31, 2009.

The independent pricing sources obtain market quotations and actual transaction prices for securities that have quoted prices in active markets. Each source has its own proprietary method for determining the fair value of securities that are not actively traded. In general, these methods involve the use of "matrix pricing" in which the independent pricing source uses observable market inputs including, but not limited to, investment yields, credit risks and spreads, benchmarking of like securities, broker-dealer quotes, reported trades and sector groupings to determine a reasonable fair market value. In addition, pricing vendors use model processes, such as an Option Adjusted Spread model, to develop prepayment and interest rate scenarios. The Option Adjusted Spread model is commonly used to estimate fair value for securities such as mortgage backed and asset backed securities. In certain circumstances, when fair market values are unavailable from these independent pricing sources, quotes are obtained directly from broker-dealers who are active in the corresponding markets. Such quotes are subject to the validation procedures noted above. Of the \$11.43 billion of financial assets and liabilities measured at fair value at December 31, 2010, approximately \$1.81 billion, or 15.8%, were priced using non-binding broker-dealer quotes. Of the \$10.71 billion of financial assets and liabilities measured at fair value at December 31, 2009, approximately \$1.17 billion, or 10.9%, were priced using non-binding broker-dealer quotes.

The Company reviews its securities measured at fair value and discusses the proper classification of such investments with investment advisors and others. Upon adoption of the accounting guidance regarding fair value measurement, the Company determined that Level 1 securities included highly liquid, recent issue U.S. Treasuries and certain of its short-term investments held in highly liquid money market-type funds where it believes that quoted prices are available in an active market. On January 1, 2010, the Company determined that all U.S. Treasuries would be classified as Level 1 securities due to observed levels of trading activity, the high number of strongly correlated pricing quotes received on U.S. Treasuries and other factors. Such determination resulted in \$1.08 billion of U.S. Treasuries previously classified as Level 2 being moved into Level 1.

Where the Company believes that quoted market prices are not available or that the market is not active, fair values are estimated by using quoted prices of securities with similar characteristics, pricing models or matrix pricing and are generally classified as Level 2 securities. The Company determined that Level 2 securities included corporate bonds, mortgage backed securities, municipal bonds, asset backed securities, non-

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U.S. government securities, TALF investments and TALF borrowings, certain short-term securities and certain other investments.

The Company determined that three Euro-denominated corporate bonds which invest in underlying portfolios of fixed income securities for which there is a low level of transparency around inputs to the valuation process should be classified within Level 3 of the valuation hierarchy. In addition, the Company determined that two mutual funds, included in other investments, which invest in underlying portfolios of fixed income securities for which there is a low level of transparency around inputs to the valuation process should be classified within Level 3 of the valuation hierarchy. In addition, Level 3 securities include a small number of premium-tax bonds. The Company reviews the classification of its investments each quarter. No securities were reclassified between Level 2 and Level 3 during 2010.

In securities lending transactions, the Company receives collateral in excess of the fair value of the fixed maturities and short-term investments pledged under securities lending agreements. For purposes of the following table, the Company has excluded the collateral received and reinvested of \$69.7 million and \$207.0 million at December 31, 2010 and 2009, respectively, and included the \$75.6 million and \$212.8 million, respectively, of “fixed maturities and short-term investments pledged under securities lending agreements, at market value.”

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The following table presents the Company's financial assets and liabilities measured at fair value by level:

|  | <b>Fair Value Measurement Using:</b>  |   |  |  |
|--|---------------------------------------|---|--|--|
|  | <b>Estimated<br/>Market<br/>Value</b> | <b>Quoted Prices<br/>in Active<br/>Markets for<br/>Identical<br/>Assets<br/>(Level 1)</b> | <b>Significant<br/>Other<br/>Observable<br/>Inputs<br/>(Level 2)</b> | <b>Significant<br/>Unobservable<br/>Inputs<br/>(Level 3)</b> |
| <b>December 31, 2010:</b>                    |                                       |   |  |  |
| Assets measured at fair value:               |                                       |   |  |  |
| Fixed maturities:                            |                                       |   |  |  |
| Corporate bonds .....                        | \$2,835,790                           | \$—   | \$2,682,281  | \$153,509  |
| Mortgage backed securities .....             | 1,806,589                             | —   | 1,806,589  | —  |
| Municipal bonds.....                         | 1,182,100                             | —   | 1,182,100  | —  |
| Commercial mortgage backed securities.....   | 1,167,299                             | —   | 1,167,299  | —  |
| U.S. government and government agencies .... | 868,423                               | 868,423   | —  | —  |
| Non-U.S. government securities .....         | 732,666                               | —   | 732,666  | —  |
| Asset backed securities .....                | 557,942                               | —   | 557,942  | —  |
| Total.....                                   | 9,150,809                             | 868,423   | 8,128,877  | 153,509  |
| Short-term investments .....                 | 907,943                               | 851,143   | 56,800   | —  |
| TALF investments, at market value.....       | 402,449                               | —   | 402,449  | —  |
| Equity securities .....                      | 363,255                               | 350,684   | 12,571   | —  |
| Other investments.....                       | 275,538                               | —   | 267,680  | 7,858  |
| Total assets measured at fair value.....     | \$11,099,994                          | \$2,070,250   | \$8,868,377  | \$161,367  |
| Liabilities measured at fair value:          |                                       |   |  |  |
| TALF borrowings, at market value .....       | \$325,770                             | \$—   | \$325,770  | \$—  |
| <b>December 31, 2009:</b>                    |                                       |   |  |  |
| Assets measured at fair value:               |                                       |   |  |  |
| Fixed maturities:                            |                                       |   |  |  |
| Corporate bonds .....                        | \$3,130,901                           | \$—   | \$2,952,516  | \$178,385  |
| Mortgage backed securities .....             | 1,449,382                             | —   | 1,449,382  | —  |
| Municipal bonds.....                         | 957,752                               | —   | 957,752  | —  |
| Commercial mortgage backed securities.       | 1,185,799                             | —   | 1,185,799  | —  |
| U.S. government and government agencies .... | 1,549,676                             | 466,779   | 1,082,897  | —  |
| Non-U.S. government securities .....         | 752,215                               | —   | 752,215  | —  |
| Asset backed securities .....                | 567,844                               | —   | 567,844  | —  |
| Total.....                                   | 9,593,569                             | 466,779   | 8,948,405  | 178,385  |
| Short-term investments .....                 | 553,861                               | 542,659   | 11,202   | —  |
| TALF investments, at market value.....       | 250,265                               | —   | 250,265  | —  |
| Equity securities .....                      | 36,623                                | 36,623  | —  | —  |
| Other investments.....                       | 58,751                                | —   | 9,083  | 49,668   |
| Total assets measured at fair value.....     | \$10,493,069                          | \$1,046,061   | \$9,218,955  | \$228,053  |
| Liabilities measured at fair value:          |                                       |   |  |  |
| TALF borrowings, at market value .....       | \$217,565                             | \$—   | \$217,565  | \$—  |

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The following table presents a reconciliation of the beginning and ending balances for all investments measured at fair value on a recurring basis using Level 3 inputs:

|   | <b>Fair Value Measurements Using:<br/>Significant Unobservable Inputs (Level 3)</b> |                              |                  |
|---|---|------------------------------|------------------|
|   | <b>Corporate<br/>Bonds</b>  | <b>Other<br/>Investments</b> | <b>Total</b>     |
| <b>Year Ended December 31, 2010:</b>          |   |                              |                  |
| Balance at beginning of period .....          | \$178,385   | \$49,668                     | \$228,053        |
| Total gains or (losses) (realized/unrealized) |   |                              |                  |
| Included in earnings (1) .....                | 11,687  | 3,250                        | 14,937           |
| Included in other comprehensive income .....  | (8,744)   | (694)                        | (9,438)          |
| Purchases, issuances and settlements .....    | (27,819)  | (44,366)                     | (72,185)         |
| Transfers in and/or out of Level 3 .....      | —   | —                            | —                |
| Balance at end of period .....                | <u>\$153,509</u>  | <u>\$7,858</u>               | <u>\$161,367</u> |
| <b>Year Ended December 31, 2009:</b>          |   |                              |                  |
| Balance at beginning of period .....          | \$142,571   | \$40,339                     | \$182,910        |
| Total gains or (losses) (realized/unrealized) |   |                              |                  |
| Included in earnings (1) .....                | 2,395   | (14,117)                     | (11,722)         |
| Included in other comprehensive income .....  | 52,698  | 24,075                       | 76,773           |
| Purchases, issuances and settlements .....    | (19,279)  | (629)                        | (19,908)         |
| Transfers in and/or out of Level 3 .....      | —   | —                            | —                |
| Balance at end of period .....                | <u>\$178,385</u>  | <u>\$49,668</u>              | <u>\$228,053</u> |

- (1) Gains or losses on fixed maturities were recorded as a component of net investment income while gains or losses on other investments were recorded in net realized gains (losses).

The amount of total losses for 2010 included in earnings attributable to the change in unrealized gains or losses relating to assets still held at December 31, 2010 were \$14.9 million. The amount of total losses for 2009 included in earnings attributable to the change in unrealized gains or losses relating to assets still held at December 31, 2009 were \$2.6 million.

***Fair Value Measurements on a Non-Recurring Basis***

The Company measures the fair value of certain assets on a non-recurring basis, generally quarterly, annually, or when events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. These assets include investment funds accounted for using the equity method, investment in joint venture, certain other investments, goodwill and intangible assets, and long-lived assets. The Company uses a variety of techniques to measure the fair value of these assets when appropriate, as described below:

*Investment funds accounted for using the equity method and Investment in joint venture and certain other investments.* When the Company determines that the carrying value of these assets may not be recoverable, the Company records the assets at fair value with the loss recognized in income. In such cases, the Company measures the fair value of these assets using the techniques discussed above in “—Fair Value Measurements on a Recurring Basis.”

*Goodwill and intangible assets.* The goodwill and intangible assets of acquired businesses, which totaled \$23.2 million and \$24.2 million, respectively, at December 31, 2010 and 2009, is included in “Other assets” in the Company’s balance sheet and represents the difference between the purchase price and the fair value of the

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net tangible assets of the acquired businesses. The Company tests goodwill and intangible assets for impairment whenever events or changes in circumstances indicate the carrying amount may not be recoverable, but at least annually for goodwill. When the Company determines goodwill and intangible assets may be impaired, the Company uses techniques including discounted expected future cash flows, to measure fair value.

*Long-Lived Assets.* The Company tests its long-lived assets for impairment whenever events or changes in circumstances indicate the carrying amount of a long-lived asset may not be recoverable.

## 8. Derivative Instruments

The Company's investment strategy allows for the use of derivative securities. The Company's derivative instruments are recorded on its consolidated balance sheets at market value. The market values of those derivatives are based on quoted market prices. All realized and unrealized contract gains and losses are reflected in the Company's results of operations. The Company utilizes exchange traded U.S. Treasury note, Eurodollar and other futures contracts and commodity futures to manage portfolio duration or replicate investment positions in its portfolios. Certain of the Company's corporate bonds are managed in a global bond portfolio which incorporates the use of foreign currency forward contracts which are intended to provide an economic hedge against foreign currency movements on the portfolio's non-U.S. Dollar denominated holdings. In addition, the Company utilizes other foreign currency forward contracts and currency options as part of its investment strategy.

In addition, the Company purchases to-be-announced mortgage backed securities ("TBAs") as part of its investment strategy. TBAs represent commitments to purchase a future issuance of agency mortgage backed securities. For the period between purchase of a TBA and issuance of the underlying security, the Company's position is accounted for as a derivative. The Company purchases TBAs in both long and short positions to enhance investment performance and as part of its overall investment strategy. The Company did not hold any derivatives which were designated as hedging instruments at December 31, 2010 or December 31, 2009.

The following table summarizes information on the balance sheet locations, market values and notional values of the Company's derivative instruments:

|                           | Balance Sheet Location | Asset Derivatives      |                | Liability Derivatives  |                |
|---------------------------|------------------------|------------------------|----------------|------------------------|----------------|
|                           |                        | Estimated Market Value | Notional Value | Estimated Market Value | Notional Value |
| <b>December 31, 2010:</b> |                        |                        |                |                        |                |
| Futures                   | Other investments      | \$1,968                | \$512,292      | (\$62)                 | \$23,544       |
| Foreign currency forwards | Other investments      | 4,093                  | 119,969        | (13,582)               | 277,908        |
| TBAs                      | Fixed maturities       | 125,397                | 121,100        | —                      | —              |
| Other                     | Other investments      | 14,236                 | 239,552        | (4,595)                | 268,597        |
| Total                     |                        | <u>\$145,694</u>       |                | <u>(\$18,239)</u>      |                |
| <b>December 31, 2009:</b> |                        |                        |                |                        |                |
| Futures                   | Other investments      | \$577                  | \$472,904      | (\$208)                | \$513,034      |
| Foreign currency forwards | Other investments      | 757                    | 73,340         | (12,408)               | 310,030        |
| TBAs                      | Fixed maturities       | 11,070                 | 11,000         | (616)                  | 600            |
| Other                     | Other investments      | 26                     | 1,975          | (1,010)                | 143,870        |
| Total                     |                        | <u>\$12,430</u>        |                | <u>(\$14,242)</u>      |                |

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The following table summarizes derivative instrument activity, which is reflected as net realized gains or losses in the consolidated statements of operations:

| <b>Derivatives not designated as<br/>hedging instruments</b> | <b>Year Ended December 31,</b> |                |
|--|--------------------------------|----------------|
|  | <b>2010</b>                    | <b>2009</b>    |
| Futures  | \$36,675                       | \$3,791        |
| Foreign currency forwards                                    | (5,266)                        | (5,798)        |
| TBAs   | 6,311                          | 1,154          |
| Other  | 4,303                          | 389            |
| Total  | <u>\$42,023</u>                | <u>(\$464)</u> |

### 9. Other Comprehensive Income (Loss)

Following are the related tax effects allocated to each component of other comprehensive income (loss):

|   | <b>Before<br/>Tax<br/>Amount</b> | <b>Tax<br/>Expense<br/>(Benefit)</b> | <b>Net<br/>of Tax<br/>Amount</b> |
|---|----------------------------------|--------------------------------------|----------------------------------|
| <b><i>Year Ended December 31, 2010</i></b>  |                                  |                                      |                                  |
| Unrealized appreciation in value of investments:  |                                  |                                      |                                  |
| Unrealized holding gains arising during year .....  | \$242,238                        | \$5,779                              | \$236,459                        |
| Portion of other-than-temporary impairment losses<br>recognized in other comprehensive income ..... | (1,752)                          | —                                    | (1,752)                          |
| Less reclassification of net realized gains included in net<br>income .....                         | 175,335                          | 5,697                                | 169,638                          |
| Foreign currency translation adjustments .....  | 2,312                            | 1,388                                | 924                              |
| Other comprehensive income .....  | <u>\$67,463</u>                  | <u>\$1,470</u>                       | <u>\$65,993</u>                  |
| <b><i>Year Ended December 31, 2009</i></b>  |                                  |                                      |                                  |
| Unrealized appreciation in value of investments:  |                                  |                                      |                                  |
| Unrealized holding losses arising during year .....   | \$585,522                        | \$11,094                             | \$574,428                        |
| Portion of other-than-temporary impairment losses<br>recognized in other comprehensive income ..... | (81,376)                         | —                                    | (81,376)                         |
| Less reclassification of net realized losses included in net<br>income .....                        | 54,602                           | 6,077                                | 48,525                           |
| Foreign currency translation adjustments .....  | 13,555                           | 2,196                                | 11,359                           |
| Other comprehensive income .....  | <u>\$463,099</u>                 | <u>\$7,213</u>                       | <u>\$455,886</u>                 |

### 10. Income Taxes

Arch Re Ltd. is incorporated under the laws of Bermuda and, under current Bermuda law, is not obligated to pay any taxes in Bermuda based upon income or capital gains. Arch Re Ltd. has received a written undertaking from the Minister of Finance in Bermuda under the Exempted Undertakings Tax Protection Act 1966 that, in the event that any legislation is enacted in Bermuda imposing any tax computed on profits, income, gain or appreciation on any capital asset, or any tax in the nature of estate duty or inheritance tax, such tax will not be applicable to ACGL or any of its operations until March 28, 2016. This undertaking does not, however,

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prevent the imposition of taxes on any person ordinarily resident in Bermuda or any company in respect of its ownership of real property or leasehold interests in Bermuda.

Arch Re Ltd. and its non-U.S. subsidiaries will be subject to U.S. federal income tax only to the extent that they derive U.S. source income that is subject to U.S. withholding tax or income that is effectively connected with the conduct of a trade or business within the U.S. and is not exempt from U.S. tax under an applicable income tax treaty with the U.S. Arch Re Ltd. and its non-U.S. subsidiaries will be subject to a withholding tax on dividends from U.S. investments and interest from certain U.S. payors (subject to reduction by any applicable income tax treaty). Arch Re Ltd. and its non-U.S. subsidiaries intend to conduct their operations in a manner that will not cause them to be treated as engaged in a trade or business in the United States and, therefore, will not be required to pay U.S. federal income taxes (other than U.S. excise taxes on insurance and reinsurance premium and withholding taxes on dividends and certain other U.S. source investment income). However, because there is uncertainty as to the activities which constitute being engaged in a trade or business within the United States, there can be no assurances that the U.S. Internal Revenue Service will not contend successfully that Arch Re Ltd. or its non-U.S. subsidiaries are engaged in a trade or business in the United States. If Arch Re Ltd. or any of its non-U.S. subsidiaries were subject to U.S. income tax, Arch Re Ltd.'s shareholder's equity and earnings could be materially adversely affected. Arch Re Ltd. has subsidiaries and branches that operate in various jurisdictions around the world that are subject to tax in the jurisdictions in which they operate. The significant jurisdictions in which Arch Re Ltd.'s subsidiaries and branches are subject to tax are the United States, United Kingdom, Ireland, Canada, Switzerland and Denmark.

The components of income taxes attributable to operations were as follows:

|                                    | <b>Year Ended December 31,</b> |                 |
|------------------------------------|--------------------------------|-----------------|
|                                    | <b>2010</b>                    | <b>2009</b>     |
| <b>Current expense:</b>            |                                |                 |
| U.S. Federal .....                 | \$9,139                        | \$19,373        |
| U.S. State .....                   | 615                            | 638             |
| Non-U.S. ....                      | 8,621                          | 2,627           |
|                                    | <u>18,375</u>                  | <u>22,638</u>   |
| <b>Deferred expense (benefit):</b> |                                |                 |
| U.S. Federal.....                  | (12,415)                       | (1,099)         |
| Non-U.S. ....                      | 1,370                          | (1,419)         |
|                                    | <u>(11,045)</u>                | <u>(2,518)</u>  |
| Income tax expense .....           | <u>\$7,330</u>                 | <u>\$20,120</u> |

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The expected tax provision computed on pre-tax income at the weighted average tax rate has been calculated as the sum of the pre-tax income in each jurisdiction multiplied by that jurisdiction's applicable statutory tax rate. A reconciliation of the difference between the provision for income taxes and the expected tax provision at the weighted average tax rate follows:

|   | <b>Year Ended December 31,</b> |                 |
|---|--------------------------------|-----------------|
|   | <b>2010</b>                    | <b>2009</b>     |
| Expected income tax expense computed on pre-tax income at weighted average income tax rate..... | \$9,642                        | \$30,659        |
| Addition (reduction) in income tax expense (benefit) resulting from:                            |                                |                 |
| Tax-exempt investment income.....   | (8,281)                        | (8,911)         |
| Meals and entertainment.....  | 646                            | 453             |
| State taxes, net of U.S. federal tax benefit.....   | 400                            | 438             |
| U.S. operations' foreign taxes, net of U.S. federal tax benefit.....                            | 139                            | (983)           |
| Prior year adjustment.....  | 677                            | (1,992)         |
| Non deductible foreign exchange losses.....   | 1,067                          | —               |
| Changes in applicable tax rate.....   | 1,469                          | —               |
| Dividend withholding taxes.....   | 718                            | —               |
| Other.....  | 853                            | 456             |
| Income tax expense.....   | <u>\$7,330</u>                 | <u>\$20,120</u> |

The Company has net operating loss carryforwards in its U.S. operating subsidiaries totaling \$5.0 million at December 31, 2010. Such net operating losses are currently available to offset future taxable income of the subsidiaries. Under applicable law, the U.S. net operating loss carryforwards expire between 2018 and 2020.

The Company also has a foreign tax credit carryforward of \$6.2 million, of which \$5.0 million relates to the Company's U.S. operations and will expire between 2018 and 2020. Additionally, the Company has an alternative minimum tax ("AMT") credit carryforward in the amount of \$6.6 million which can be carried forward indefinitely.

On November 20, 2001, ACGL underwent an ownership change for U.S. federal income tax purposes as a result of the investment led by investment funds associated with Warburg Pincus LLC ("Warburg Pincus") and Hellman and Friedman LLC ("Hellman & Friedman"). As a result of this ownership change, limitations have been imposed upon the utilization by the Company's U.S. operating subsidiaries of existing net operating losses. Utilization by such subsidiaries of the net operating losses is limited to approximately \$2.4 million per year in accordance with Section 382 of the Internal Revenue Code of 1986 as amended (the "Code").

The Company's Danish subsidiary has a net operating loss carryforward of \$2.5 million which can be carried forward without expiration.

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Deferred income tax assets and liabilities reflect temporary differences based on enacted tax rates between the carrying amounts of assets and liabilities for financial reporting and income tax purposes. Significant components of the Company's deferred income tax assets and liabilities were as follows:

|  | <b>December 31,</b> |                 |
|--|---------------------|-----------------|
|  | <b>2010</b>         | <b>2009</b>     |
| Deferred income tax assets:                      |                     |                 |
| Net operating loss .....                         | \$2,387             | \$2,601         |
| Deferred ceding commission .....                 | 6,697               | 9,548           |
| AMT credit carryforward.....                     | 6,642               | —               |
| Discounting of net loss reserves.....            | 37,955              | 35,657          |
| Net unearned premium reserve .....               | 13,563              | 13,210          |
| Compensation liabilities.....                    | 21,002              | 20,564          |
| Foreign tax credit carryforward .....            | 6,238               | 2,283           |
| Interest expense.....                            | 950                 | 3,161           |
| Other, net .....                                 | 9,525               | 4,909           |
| Total deferred tax assets .....                  | <u>104,959</u>      | <u>91,933</u>   |
| Deferred income tax liabilities:                 |                     |                 |
| Depreciation and amortization.....               | (6,297)             | (4,023)         |
| Deferred acquisition costs, net.....             | (2,850)             | (2,196)         |
| Deposit accounting liability .....               | (4,702)             | (5,090)         |
| Foreign transaction exchange gains .....         | (667)               | (1,350)         |
| Net unrealized foreign exchange gains .....      | (3,021)             | (1,634)         |
| Net unrealized appreciation of investments ..... | (21,101)            | (20,876)        |
| Other, net .....                                 | (2,081)             | (1,831)         |
| Total deferred tax liabilities .....             | <u>(40,719)</u>     | <u>(37,000)</u> |
| Net deferred income tax asset .....              | <u>\$64,240</u>     | <u>\$54,933</u> |

FASB guidance regarding the accounting for uncertainty in income taxes prescribes a “more likely than not” threshold for the financial statement recognition of a tax position taken or expected to be taken in a tax return, assuming the relevant tax authority has full knowledge of all relevant information. The amount recognized represents the largest amount of tax benefit that is greater than 50% likely of being ultimately realized. A liability is recognized for any benefit claimed, or expected to be claimed, in a tax return in excess of the benefit recorded in the financial statements, along with any interest and penalty (if applicable) on the excess. The Company recognizes interest and penalties relating to unrecognized tax benefits in the provision for income taxes.

As of December 31, 2010 and 2009, the Company's total unrecognized tax benefits, including interest and penalties, were nil.

The Company or its subsidiaries or branches files income tax returns in the U.S. federal jurisdiction and various state, local and foreign jurisdictions. With few exceptions, the Company is no longer subject to U.S. federal, state, local, or non-U.S. income tax examination for years before 2007.

In addition to unrecognized tax benefits, the Company provides a valuation allowance to reduce certain deferred tax assets to an amount which management expects to more likely than not be realized. As of December 31, 2010 and 2009, the Company's valuation allowance was nil.

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The Company paid \$7.2 million and \$30.9 million for income taxes, net of recoveries, in 2010 and 2009, respectively. As of December 31, 2010, the Company's current income tax recoverable (included in "Other assets") was \$10.0 million.

***Federal Excise Taxes***

The United States also imposes an excise tax on insurance and reinsurance premiums paid to non-U.S. insurers or reinsurers with respect to risks located in the United States. The rates of tax, unless reduced by an applicable U.S. tax treaty, are four percent for non-life insurance premiums and one percent for life insurance and all reinsurance premiums. The Company incurs federal excise taxes on certain of its reinsurance transactions, including amounts ceded through intercompany transactions. For 2010 and 2009, the Company incurred approximately \$11.5 million and \$12.8 million, respectively, of federal excise taxes. Such amounts are reflected as acquisition expenses in the Company's consolidated statements of income.

**11. Transactions with Related Parties**

During 2006, the Company invested \$50.0 million in Aeolus LP ("Aeolus"), which operates as an unrated reinsurance platform that provides property catastrophe protection to insurers and reinsurers on both an ultimate net loss and industry loss warranty basis. In return for its investment, included in "Other investments" on the Company's balance sheet, the Company received an approximately 4.9% preferred interest in Aeolus and a pro rata share of certain founders' interests. The investment is accounted for using the equity method. The Company made its investment in Aeolus on the same economic terms as a fund affiliated with Warburg Pincus. During 2010, all remaining shares of the Company owned by Warburg Pincus were distributed. In addition, one of the founders of Aeolus is Peter Appel, former President and CEO and a former director of ACGL. During 2009, the Company received a distribution of \$14.0 million from Aeolus as part of a repurchase agreement. Following such receipt, the Company's preferred interest percentage decreased to approximately 4.4%.

During 2010 and 2009, the Company incurred approximately \$10.6 million and \$10.5 million, respectively, of administrative and support service fees to a wholly owned subsidiary of ACGL, Arch Capital Services Inc., and its subsidiary, Arch International Services Inc. (collectively, "ACSI"). Such fees were incurred pursuant to the terms of specific administrative and support service agreements between Arch Re Ltd. and certain of its subsidiaries and ACSI, and are included in "Other Operating Expenses" in the consolidated statements of income. In addition, during 2010 and 2009, the Company incurred approximately \$8.8 million and \$7.3 million, respectively, of investment service fees to Arch Investment Management Ltd. ("AIM"), a wholly-owned subsidiary of ACGL. Such fees are incurred pursuant to the terms of specific investment service agreements between Arch Re Ltd. and certain of its subsidiaries and AIM, and "Net Investment Income" in the consolidated statements of income is net of these fees.

**12. Commitments and Contingencies**

***Concentrations of Credit Risk***

The creditworthiness of a counterparty is evaluated by the Company, taking into account credit ratings assigned by independent agencies. The credit approval process involves an assessment of factors, including, among others, the counterparty, country and industry credit exposure limits. Collateral may be required, at the discretion of the Company, on certain transactions based on the creditworthiness of the counterparty.

The areas where significant concentrations of credit risk may exist include unpaid losses and loss adjustment expenses recoverable, prepaid reinsurance premiums and paid losses and loss adjustment expenses recoverable net of reinsurance balances payable (collectively "reinsurance recoverables"), investments and cash and cash equivalent balances. The Company's reinsurance recoverables at December 31, 2010 and 2009 amounted to \$2.01 billion and \$1.97 billion, respectively, and primarily resulted from reinsurance arrangements

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entered into in the course of its operations. A credit exposure exists with respect to reinsurance recoverables as they may become uncollectible. The Company manages its credit risk in its reinsurance relationships by transacting with reinsurers that it considers financially sound and, if necessary, the Company may hold collateral in the form of funds, trust accounts and/or irrevocable letters of credit. This collateral can be drawn on for amounts that remain unpaid beyond specified time periods on an individual reinsurer basis.

In addition, the Company underwrites a significant amount of its business through brokers and a credit risk exists should any of these brokers be unable to fulfill their contractual obligations with respect to the payments of insurance and reinsurance balances owed to the Company. During 2010, approximately 18.8% and 15.1% of the Company's consolidated gross written premiums were generated from or placed by Aon Corporation and its subsidiaries and Marsh & McLennan Companies and its subsidiaries, respectively, compared to approximately 21.4% and 15.6% for 2009, respectively. No other broker and no one insured or reinsured accounted for more than 10% of gross premiums written for 2010 and 2009.

The Company's available for sale investment portfolio is managed in accordance with guidelines that have been tailored to meet specific investment strategies, including standards of diversification, which limit the allowable holdings of any single issue. There were no investments in any entity in excess of 10% of the Company's shareholder's equity at December 31, 2009 other than investments issued or guaranteed by the United States government or its agencies. The Company's unfunded investment commitments relating to investment funds accounted for using the equity method and other investments totaled \$95.5 million at December 31, 2010.

***Letter of Credit and Revolving Credit Facilities***

As of December 31, 2010, ACGL had a \$300 million unsecured revolving loan and letter of credit facility and a \$1.0 billion secured letter of credit facility (the "Credit Agreement"). Under the terms of the Credit Agreement, Arch Re U.S. is limited to issuing \$100 million of unsecured letters of credit as part of the \$300 million unsecured revolving loan. Borrowings of revolving loans may be made by ACGL and Arch Re U.S. at a variable rate based on LIBOR or an alternative base rate at the option of the Company. Secured letters of credit are available for issuance on behalf of Arch Re Ltd. and its insurance and reinsurance subsidiaries. The Credit Agreement and related documents are structured such that each party that requests a letter of credit or borrowing does so only for itself and for only its own obligations. Issuance of letters of credit and borrowings under the Credit Agreement are subject to the Company's compliance with certain covenants and conditions, including absence of a material adverse change. These covenants require, among other things, that ACGL maintain a debt to total capital ratio of not greater than 0.35 to 1 and shareholders' equity in excess of \$1.95 billion plus 25% of future aggregate net income for each quarterly period (not including any future net losses) beginning after June 30, 2006 and 25% of future aggregate proceeds from the issuance of common or preferred equity and that the Company's principal insurance and reinsurance subsidiaries maintain at least a "B++" rating from A.M. Best. In addition, certain of the Company's subsidiaries which are party to the Credit Agreement are required to maintain minimum shareholder's equity levels. ACGL was in compliance with all covenants contained in the Credit Agreement at December 31, 2010. The Credit Agreement expires on August 30, 2011.

Including the secured letter of credit portion of the Credit Agreement, ACGL has access to letter of credit facilities for up to a total of \$1.38 billion. Arch Re Bermuda also has access to other letter of credit facilities, some of which are available on a limited basis and for limited purposes (together with the secured portion of the Credit Agreement and these letter of credit facilities, the "LOC Facilities"). The principal purpose of the LOC Facilities is to issue, as required, evergreen standby letters of credit in favor of primary insurance or reinsurance counterparties with which the Company has entered into reinsurance arrangements to ensure that such counterparties are permitted to take credit for reinsurance obtained from Arch Re Ltd. and its reinsurance subsidiaries in United States jurisdictions where such subsidiaries are not licensed or otherwise admitted as an insurer, as required under insurance regulations in the United States, and to comply with requirements of Lloyd's of London in connection with qualifying quota share and other arrangements. The amount of letters of

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credit issued is driven by, among other things, the timing and payment of catastrophe losses, loss development of existing reserves, the payment pattern of such reserves, the further expansion of the Company's business and the loss experience of such business. When issued, certain letters of credit are secured by a portion of the Company's investment portfolio. In addition, the LOC Facilities also require the maintenance of certain covenants, which ACGL was in compliance with at December 31, 2010. At such date, the Company had approximately \$743.1 million in outstanding letters of credit under the LOC Facilities, which were secured by investments totaling \$831.6 million. In May 2008, ACGL borrowed \$100.0 million under the Credit Agreement at an ACGL-selected variable interest rate that is based on 1 month, 3 month or 6 month reset option terms and their corresponding term LIBOR rates plus 27.5 basis points. The proceeds from such borrowings, which are repayable in August 2011, were contributed as additional share capital to Arch Re Ltd. and used to fund the investment in Gulf Re (see Note 5).

***TALF Program***

TALF provides secured financing for asset-backed securities backed by certain types of consumer and small business loans and for legacy commercial mortgage-backed securities. TALF financing is non-recourse to the Company, except in certain limited instances, and is collateralized by the purchased securities and provides financing for the purchase price of the securities, less a 'haircut' that varies based on the type of collateral. The Company can deliver the collateralized securities to a special purpose vehicle created by the FRBNY in full defeasance of the borrowings.

As of December 31, 2010, the Company had \$402.4 million of securities under TALF, consisting of 19 individual TALF investments, which are reflected as "TALF investments, at market value" and \$325.8 million of secured financing from the FRBNY which is reflected as "TALF borrowings, at market value." The maturity dates for the TALF borrowings range from July 2012 to May 2015, with interest rates that range from approximately 1.2% to 3.9% based on either variable or fixed interest rates depending on the related TALF investments. See Note 6, "Investment Information—TALF Program," for additional information.

***Leases and Purchase Obligations***

At December 31, 2010, the future minimum rental commitments, exclusive of escalation clauses and maintenance costs and net of rental income, for all of the Company's operating leases are as follows:

|                  |                         |
|------------------|-------------------------|
| 2011.....        | \$15,974                |
| 2012.....        | 14,188                  |
| 2013.....        | 13,180                  |
| 2014.....        | 12,212                  |
| 2015.....        | 11,228                  |
| Thereafter ..... | 58,265                  |
| Total.....       | <u><u>\$125,047</u></u> |

All of these leases are for the rental of office space, with expiration terms that range from 2011 to 2024. Rental expense, net of income from subleases, was approximately \$14.2 million and \$16.0 million for 2010 and 2009, respectively.

The Company has also entered into certain agreements which commit the Company to purchase goods or services, primarily related to software and computerized systems. Such purchase obligations were approximately \$26.6 million and \$22.0 million at December 31, 2010 and 2009, respectively.

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***Employment Arrangements***

At December 31, 2010, the Company has entered into employment agreements with certain of its executive officers for periods extending up to November 2012. Such employment arrangements provide for compensation in the form of base salary, annual bonus, share-based awards, participation in the Company's employee benefit programs and the reimbursements of expenses.

***WTM Re Transaction and Related Contingencies***

On May 5, 2000, the Company sold the prior reinsurance operations of Arch Re U.S. pursuant to an agreement entered into as of January 10, 2000 with White Mountains Reinsurance Company of America, formerly known as Folksamerica Reinsurance Company, and a related holding company (collectively, "WTM Re"). WTM Re assumed Arch Re U.S.'s liabilities under the reinsurance agreements transferred in the asset sale and Arch Re U.S. transferred to WTM Re assets estimated in an aggregate amount equal in book value to the book value of the liabilities assumed. The WTM Re transaction was structured as a transfer and assumption agreement (and not reinsurance) and, accordingly, the loss reserves (and any related reinsurance recoverables) relating to the transferred business are not included as assets or liabilities on the Company's balance sheet. WTM Re assumed Arch Re U.S.'s rights and obligations under the reinsurance agreements transferred in the asset sale. The reinsureds under such agreements were notified that WTM Re had assumed Arch Re U.S.'s obligations and that, unless the reinsureds object to the assumption, Arch Re U.S. will be released from its obligations to those reinsureds. None of such reinsureds objected to the assumption. However, Arch Re U.S. will continue to be liable under those reinsurance agreements if the notice is found not to be an effective release by the reinsureds. WTM Re has agreed to indemnify the Company for any losses arising out of the reinsurance agreements transferred to WTM Re in the asset sale. However, in the event that WTM Re refuses or is unable to perform its obligations to the Company, Arch Re U.S. may incur losses relating to the reinsurance agreements transferred in the asset sale. WTM Re's A.M. Best rating was "A-" (Excellent) at December 31, 2010. WTM Re reported policyholders' surplus of \$743.0 million at December 31, 2010.

Under the terms of the agreement, in 2000, the Company had also purchased reinsurance protection covering the Company's transferred aviation business to reduce the net financial loss to WTM Re on any large commercial airline catastrophe to \$5.4 million, net of reinstatement premiums. Although the Company believes that any such net financial loss will not exceed \$5.4 million, the Company has agreed to reimburse WTM Re if a loss is incurred that exceeds \$5.4 million for aviation losses under certain circumstances prior to May 5, 2003. The Company also made representations and warranties to WTM Re about the Company and the business transferred to WTM Re for which the Company retains exposure for certain periods, and made certain other agreements. In addition, the Company retained its tax and employee benefit liabilities and other liabilities not assumed by WTM Re, including all liabilities not arising under reinsurance agreements transferred to WTM Re in the asset sale and all liabilities (other than liabilities arising under reinsurance agreements) arising out of or relating to a certain managing underwriting agency. Although WTM Re has not asserted that any amount is currently due under any of the indemnities provided by the Company under the asset purchase agreement, WTM Re has previously indicated a potential indemnity claim under the agreement in the event of the occurrence of certain future events. Based on all available information, the Company has denied the validity of any such potential claim.

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*Loans to ACGL*

In connection with, and for the purpose of, the share re-purchase program authorized by the Board of ACGL during the course of 2010 and 2009, ACGL requested a number of cash advances from Arch Re Ltd. Arch Re Ltd. agreed to provide such cash advances to ACGL in the form of interest free loans which were repayable upon demand. Arch Re Ltd. advanced to ACGL a total of \$795 million in 2010 and \$500 million in 2009 on such terms. These balances due to Arch Re Ltd. were subsequently forgiven by converting outstanding loan balances due into dividend payments which, in the aggregate, reduced the outstanding loan balance due from ACGL, as at December 31, 2010, to nil.

**13. Share Capital**

*Authorized and Issued*

The authorized share capital of the Company consists of 2,625,000 common shares, par value of \$1.00 per share, at December 31, 2010 and 2009, respectively. The issued share capital of the Company consists of 2,560,423 common shares, par value of \$1.00 per share at December 31, 2010 and 2009, respectively.

*Long Term Incentive and Share Award Plans*

On May 11, 2007, following shareholder approval, ACGL adopted the 2007 Employee Share Purchase Plan (the "ESPP"). The purpose of the ESPP is to give employees of ACGL and its subsidiaries an opportunity to purchase ACGL common shares ("common shares") through payroll deductions, thereby encouraging employees to share in the economic growth and success of ACGL and its subsidiaries. The ESPP is designed to qualify as an "employee share purchase plan" under Section 423 of the Code. A total of 750,000 common shares are reserved for issuance under the plan. At December 31, 2010, approximately 510,839 shares remain available for issuance. The ESPP provides for consecutive six-month offering periods (or other periods of not more than 27 months as determined by the compensation committee) under which participating employees can elect to have up to 20% of their total compensation withheld and applied to the purchase of common shares at the end of the period. Unless otherwise determined by the compensation committee before an offering period commences, (1) the purchase price will be 85% of the fair market value of the common shares at the beginning of the offering period; and (2) the maximum number of common shares that may be purchased by an employee in any offering period is 3,000 shares. In addition, applicable Code limitations specify, in general, that a participant's right to purchase stock under the plan cannot accumulate at a rate in excess of \$25,000 (based on the value at the beginning of the applicable offering periods) per calendar year. The Company recorded \$0.5 million of share-based compensation expense, net of a tax benefit of \$0.2 million, related to the ESPP for 2010, compared to \$0.4 million, net of a tax benefit of \$0.2 million, for 2009.

On May 11, 2007, following shareholder approval, ACGL adopted the 2007 Long Term Incentive and Share Award Plan (the "2007 Plan"). The 2007 Plan is intended to provide for competitive compensation opportunities, to encourage long-term service, to recognize individual contributions and reward achievement of performance goals and to promote the creation of long-term value for shareholders by aligning the interests of such persons with those of shareholders. The 2007 Plan provides for the grant to eligible employees and directors stock options, stock appreciation rights, restricted shares, restricted share units payable in common shares or cash, share awards in lieu of cash awards, dividend equivalents and other share-based awards

Following shareholder approval on May 11, 2007, the 2005 Long Term Incentive and Share Award Plan (the "2005 Plan"), whose terms are substantially similar to the 2007 Plan, was merged into the 2007 Plan. As of the effective date, the 1,533,527 remaining common shares available for issuance under the 2005 Plan were transferred into the 2007 Plan. No additional grants will be made thereafter under the 2005 Plan.

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Grants which were outstanding at May 11, 2007 under the 2005 Plan will continue in accordance with their original terms (subject to such amendments as the compensation committee determines appropriate, consistent with the terms of the 2005 Plan), and the common shares with respect to such outstanding grants will be issued or transferred under the 2007 Plan. The number of common shares reserved for issuance under the 2007 Plan, subject to anti-dilution adjustments in the event of certain changes in our capital structure, is equal to the sum of (i) 2,500,000 and (ii) the number of common shares subject to outstanding grants under the 2005 Plan as of the effective date as well as common shares remaining available for issuance under the 2005 Plan but not subject to previously exercised or vested grants as of the effective date, except that no more than 2,000,000 common shares may be issued as incentive stock options under Section 422 of the Code. At December 31, 2010, approximately 1,527,988 common shares are available for grant under the 2007 Plan.

In June 2002, following shareholder approval, ACGL adopted the 2002 Long Term Incentive and Share Award Plan (the "2002 Plan"). An aggregate of 3,165,830 common shares has been reserved for issuance under the 2002 Plan. The 2002 Plan provides for the grant to eligible employees of stock options, stock appreciation rights, restricted shares, restricted share units payable in common shares or cash, share awards in lieu of cash awards, dividend equivalents and other share-based awards. As of December 31, 2010, approximately 18,584 common shares are available for grant under the 2002 Plan.

With respect to certain subsidiaries, the Company may withhold, or require a participant to remit to the Company, an amount sufficient to satisfy any federal, state or local withholding tax requirements associated with awards under ACGL's share award plans. This includes the authority to withhold or receive shares or other property and to make cash payments in respect thereof.

***Stock Options and Stock Appreciation Rights***

ACGL generally issues stock options and stock appreciation rights to the Company's eligible employees with exercise prices equal to the fair market values of ACGL's common shares on the grant dates. Such grants generally vest over a three year period with one-third vesting on the first, second and third anniversaries of the grant date. Option awards have a 10 year contractual life. Refer to Note 2(k) for details related to the Company's accounting for stock options.

The Company recorded after-tax share-based compensation expense of \$3.0 million related to stock option awards for 2010, net of a tax benefit of \$1.3 million, compared to \$3.1 million related to stock option awards for 2009, net of a tax benefit of \$1.2 million. As of December 31, 2010, there was approximately \$4.5 million of unrecognized compensation cost related to nonvested stock options. Such cost is expected to be recognized over a weighted average period of 1.6 years.

For purposes of determining estimated market value, ACGL has computed the estimated market values of share-based compensation related to stock options using the Black-Scholes option valuation model and has applied the assumptions set forth in the following table. As described above, stock options generally vest over a three year period with one-third vesting on the first, second and third anniversaries of the grant date. The expected life assumption (*i.e.*, the estimated period of time between the date an option is granted and the date the option is exercised) was based on an expected term analysis which incorporated the Company's historical share option exercise experience. The Company based its estimate of expected volatility for options granted during 2010 on daily historical trading data of its common shares from September 20, 2002, the date marking the completion of the Company's transition as a worldwide insurance and reinsurance company. For options granted during 2010, the Company based its volatility estimate under the same method used for 2009, using the period from September 20, 2002 through the last day of the applicable period.

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|                               | <b>Year Ended December 31,</b> |             |
|-------------------------------|--------------------------------|-------------|
|                               | <b>2010</b>                    | <b>2009</b> |
| Dividend yield.....           | 0.0%                           | 0.0%        |
| Expected volatility .....     | 25.5%                          | 26.2%       |
| Risk free interest rate ..... | 2.7%                           | 2.6%        |
| Expected option life .....    | 5.9 years                      | 5.8 years   |

The Black-Scholes option pricing model requires the input of highly subjective assumptions. Because ACGL's employee stock options have characteristics significantly different from those of traded options, and because changes in the subjective input assumptions can materially affect the fair value estimate in management's opinion, the existing models may not provide a reliable single measure of the fair value of its employee stock options. In addition, management will continue to assess the assumptions and methodologies used to calculate estimated fair value of share-based compensation. Circumstances may change and additional data may become available over time, which could result in changes to these assumptions and methodologies, and which could materially impact ACGL's fair value determination.

A summary of option activity under ACGL's Long term Incentive and Share Award Plans during the year ended December 31, 2010 related to the Company is presented below:

|                                      | <b>Year Ended<br/>December 31, 2010</b> |  |
|--------------------------------------|---|--|
|                                      | <b>Number of<br/>Options</b>            | <b>Weighted Average<br/>Exercise Price</b> |
| Outstanding, beginning of year ..... | 2,115,072                               | \$45.65                                    |
| Granted.....                         | 200,679                                 | \$75.10                                    |
| Exercised.....                       | (872,309)                               | \$33.50                                    |
| Forfeited or expired.....            | (22,486)                                | \$65.89                                    |
| Outstanding, end of period.....      | <u>1,420,956</u>                        | <u>\$56.95</u>                             |
| Exercisable, end of period.....      | 1,018,026                               | \$52.61                                    |

The weighted average grant-date fair value of options granted during the years ended December 31, 2010 and 2009 was \$22.97 and \$17.79, respectively. The aggregate intrinsic value of options exercised during 2010 and 2009 was approximately \$38.4 million and \$13.3 million, respectively, and represents the difference between the exercise price of the option and the closing market price of ACGL's common shares on the exercise dates. Shares issued upon exercise of stock options were from ACGL's authorized but unissued share capital pool.

The aggregate intrinsic value of the Company's outstanding and exercisable stock options at December 31, 2010 was \$44.2 million and \$36.1 million, respectively. The weighted average remaining contractual life of the Company's outstanding and exercisable stock options at December 31, 2010 was 6.02 years and 4.97 years, respectively. During 2010, the Company received proceeds of \$23.0 million from the exercise of stock options and recognized a tax benefit of \$10.0 million from the exercise of such options.

***Restricted Common Shares and Restricted Units***

ACGL also issues restricted share and unit awards to eligible employees for which the fair value is equal to the fair market values of ACGL's Common Shares on the grant dates. Compensation equal to the fair market value of the shares at the measurement date is amortized and charged to income over the requisite service period, which is generally the vesting period unless the employee is retirement eligible. Restricted share and unit awards generally vest over a three year period with one-third vesting on the first, second and third anniversaries

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of the grant date. Refer to Note 2(k) for details related to the Company's accounting for restricted share and unit awards.

The Company recorded \$10.3 million of share-based compensation expense, net of a tax benefit of \$4.5 million, related to restricted share and unit awards for 2010, compared to \$10.0 million, net of a tax benefit of \$4.0 million, for 2009. As of December 31, 2010 there were \$11.2 million and \$3.6 million, respectively, of unrecognized compensation costs related to unvested restricted share and unit awards which are expected to be recognized over a weighted average period of 1.8 years and 1.0 years, respectively.

A summary of restricted share activity under ACGL's Long Term Incentive and Share Award Plans for 2010 related to the Company is presented below:

|  | <b>Year Ended December 31, 2010</b>     |                                       |
|--|---|---------------------------------------|
|  | <b>Restricted<br/>Common<br/>Shares</b> | <b>Restricted<br/>Unit<br/>Awards</b> |
| <b>Non-Vested Shares:</b>                      |   |                                       |
| Unvested balance, beginning of year .....      | 270,727                                 | 177,803                               |
| Granted.....                                   | 168,825                                 | 32,304                                |
| Released .....                                 | (139,546)                               | (80,869)                              |
| Forfeited.....                                 | (16,467)                                | (6,277)                               |
| Unvested balance, end of year.....             | 283,539                                 | 122,961                               |
| <b>Weighted Average Grant Date Fair Value:</b> |   |                                       |
| Unvested balance, beginning of year .....      | \$60.65                                 |                                       |
| Granted.....                                   | \$74.99                                 |                                       |
| Released .....                                 | \$63.76                                 |                                       |
| Forfeited.....                                 | \$64.65                                 |                                       |
| Unvested balance, end of year.....             | \$67.43                                 |                                       |

During 2010 and 2009, ACGL granted an aggregate of 201,129 and 246,718 restricted share and restricted unit awards, respectively, with weighted average grant date fair values of \$75.13 and \$57.78, respectively. During 2010 and 2009, the aggregate fair value of restricted shares and units that vested was \$16.3 million and \$16.8 million, respectively. The aggregate intrinsic value of restricted units outstanding and exercisable at December 31, 2010 was \$10.8 million and \$713 thousand, respectively.

The issuance of share-based awards and amortization thereon has no effect on the Company's shareholder's equity.

#### 14. Retirement Plans

For purposes of providing employees with retirement benefits, the Company maintains defined contribution retirement plans. Contributions are based on the participants' eligible compensation. For 2010 and 2009, the Company expensed approximately \$16.7 million and \$15.5 million, respectively, related to these retirement plans.

#### 15. Legal Proceedings

The Company, in common with the insurance industry in general, is subject to litigation and arbitration in the normal course of its business. As of December 31, 2010, the Company was not a party to any litigation or arbitration which is expected by management to have a material adverse effect on the Company's results of operations and financial condition and liquidity.

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**16. Statutory Information**

Arch Re Ltd. and its insurance and reinsurance subsidiaries are subject to insurance and/or reinsurance laws and regulations in the jurisdictions in which they operate. These regulations include certain restrictions on the amount of dividends or other distributions available to shareholders without prior approval of the insurance regulatory authorities.

The statutory capital and surplus for the Company's principal operating subsidiaries at December 31, 2010 and 2009 was as follows:

|   | <u>Year Ended December 31,</u> |             |
|---|--------------------------------|-------------|
|   | <u>2010</u>                    | <u>2009</u> |
| <b>Statutory capital and surplus (1):</b> |                                |             |
| Bermuda .....                             | \$4,437,513                    | \$4,260,704 |
| Ireland .....                             | \$418,834                      | \$407,809   |
| United States .....                       | \$870,600                      | \$850,473   |
| United Kingdom.....                       | \$99,901                       | \$97,867    |

(1) Such amounts include ownership interests in affiliated insurance and reinsurance subsidiaries.

The statutory net income (loss) for the Company's principal operating subsidiaries for 2010 and 2009 was as follows:

|                                     | <u>Year Ended December 31,</u> |             |
|-------------------------------------|--------------------------------|-------------|
|                                     | <u>2010</u>                    | <u>2009</u> |
| <b>Statutory net income (loss):</b> |                                |             |
| Bermuda .....                       | \$895,252                      | \$940,313   |
| Ireland .....                       | \$11,457                       | \$438       |
| United States .....                 | \$22,235                       | \$74,470    |
| United Kingdom.....                 | \$3,707                        | (\$1,371)   |

Statutory accounting differs from U.S. GAAP in the reporting of certain items such as acquisition costs, deferred income taxes and investments.

***Bermuda***

Under The Insurance Act 1978, as amended, and related regulations of Bermuda (the "Insurance Act"), Arch Re Ltd. is registered as a Class 4 insurer and is required to annually prepare and file statutory financial statements and a statutory financial return with the Bermuda Monetary Authority ("BMA"). The Insurance Act also requires Arch Re Ltd. to maintain minimum share capital of \$1.0 million, to meet minimum liquidity ratios and a minimum solvency margin equal to the greatest of (A) \$100 million, (B) 50% of net premiums written (being gross premiums written less any premiums ceded by Arch Re Ltd., but Arch Re Ltd. may not deduct more than 25% of gross premiums when computing net premiums written), and (C) 15% of net discounted aggregated losses and loss expense provisions and other insurance reserves. At December 31, 2010 and 2009, such requirements were met.

Arch Re Ltd. is also required to file a regulatory risk based capital model that measures risks and determines enhanced capital requirements and a target capital level (defined as 120% of the enhanced capital requirements). In addition, all Class 4 Bermuda insurers must prepare and file with the BMA audited GAAP basis annual financial statements, which must be made publicly available. Declarations of dividends from

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retained earnings and distributions from additional paid-in-capital are subject to these requirements being met. For all applicable periods presented herein, Arch Re Ltd. satisfied these requirements

The Bermuda Companies Act 1981 (the “Companies Act”) limits Arch Re Ltd.’s ability to pay dividends and distributions to shareholders if there are reasonable grounds for believing that: (a) Arch Re Ltd. is, or would after the payment be, unable to pay its liabilities as they become due; or (b) the realizable value of Arch Re Ltd. assets would thereby be less than the aggregate of its liabilities and its issued share capital and share premium accounts. Under the Insurance Act, Arch Re Ltd. is restricted with respect to the payment of dividends. Arch Re Ltd. is prohibited from declaring or paying in any financial year dividends of more than 25% of its total statutory capital and surplus (as shown on its previous financial year’s statutory balance sheet) unless it files, at least seven days before payment of such dividends, with the BMA an affidavit stating that it will continue to meet the required margins. In addition, Arch Re Ltd. is prohibited, without prior approval of the BMA, from reducing by 15% or more its total statutory capital, as set out in its previous year’s statutory financial statements. Accordingly, Arch Re Ltd. can pay approximately \$1.11 billion to ACGL during 2011 without providing an affidavit to the BMA, as discussed above.

***Ireland***

Arch Re Ltd.’s Ireland subsidiary, Arch Re Europe, was licensed and authorized by the Central Bank of Ireland (“CBOI”), which replaced the Irish Financial Services Regulatory Authority, as a non-life reinsurer in October 2008 and as a life reinsurer in November 2009. Irish authorized reinsurers, such as Arch Re Europe, are also subject to the general body of Irish laws and regulations including the provisions of the Companies Acts 1963-2006. Arch Re Europe must file and submit its annual audited financial statements in accordance with Irish generally accepted accounting principles and related reports to the Registrar of Companies (“Registrar”) under the Companies Acts 1963-2006 together with an annual return of certain core corporate information. Changes to core corporate information during the year must also be notified to the Registrar. These requirements are in addition to the regulatory returns required to be filed annually with the CBOI. Arch Re Europe is required to maintain reserves, particularly in respect of underwriting liabilities and a solvency margin as provided for in the European Communities (Reinsurance) Regulations, 2006, related guidance and the European Communities Insurance Accounts Regulations, 1996. Assets constituting statutory reserves must comply with certain principles including obligations to secure sufficiency, liquidity, security, quality, profitability and currency matching of investments. Statutory reserves must be actuarially certified annually.

Under Irish company law, Arch Re Europe is permitted to make distributions only out of profits available for distribution. A company’s profits available for distribution are its accumulated, realized profits, so far as not previously utilized by distribution or capitalization, less its accumulated, realized losses, so far as not previously written off in a reduction or reorganization of capital duly made. Further, CBOI has powers to intervene if a dividend payment were to lead to a breach of regulatory capital requirements.

***United States***

The Company’s U.S. insurance and reinsurance subsidiaries file financial statements prepared in accordance with statutory accounting practices prescribed or permitted by insurance regulators. Statutory net income and statutory surplus, as reported to the insurance regulatory authorities, differ in certain respects from the amounts prepared in accordance with GAAP. The main differences between statutory net income and GAAP net income relate to deferred acquisition costs and deferred income taxes. In addition to deferred acquisition costs and deferred income tax assets, other differences between statutory surplus and GAAP shareholder’s equity are unrealized appreciation or decline in value of investments and non-admitted assets.

The Company’s U.S. insurance and reinsurance subsidiaries are subject to insurance laws and regulations in the jurisdictions in which they operate. The ability of the Company’s regulated insurance subsidiaries to pay dividends or make distributions is dependent on their ability to meet applicable regulatory standards. These

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regulations include restrictions that limit the amount of dividends or other distributions, such as loans or cash advances, available to shareholders without prior approval of the insurance regulatory authorities. Dividends or distributions, if any, made by the Company's U.S. regulated insurance and reinsurance subsidiaries to non-insurance affiliates would result in an increase in available capital at Arch-U.S., the Company's U.S. holding company.

***United Kingdom***

The Company's European insurance operations are conducted on two platforms: Arch Insurance Company Europe and Arch Syndicate 2012 (collectively, the insurance operations are referred to as "Arch Insurance Europe"). Arch Insurance Company Europe was licensed and authorized by the Financial Services Authority ("FSA") to underwrite all classes of general insurance in the U.K. in May 2004. In April 2009, the Company received approval in principle from the Lloyd's Franchise Board and the FSA to establish a managing agent and syndicate at Lloyd's of London. Arch Underwriting at Lloyd's Ltd is the managing agent of Arch Syndicate 2012 and is responsible for the daily management of Arch Syndicate 2012. The operations of AUAL and related Arch Syndicate 2012 and its corporate member, Arch Syndicate Investments Ltd, are subject to the byelaws and regulations made by (or on behalf of) the Council of Lloyd's, and requirements made under those byelaws.

Arch Insurance Europe must file annual audited financial statements in accordance with International Financial Reporting Standards with Companies House under the Companies Act 2006. In addition, Arch Insurance Europe is required to file regulatory returns with the FSA, which regulates insurance and reinsurance companies operating from the U.K. The financial statements required to be submitted to Companies House form the basis for the regulatory return required to be submitted to the FSA. The FSA's capital adequacy and solvency regulations require a margin of capital to be determined by Arch Insurance Europe's own individual capital assessment to value capital adequacy. The model Arch Insurance Europe uses to determine the capital requirement is reviewed and approved by the FSA who then issue an individual capital guidance.

Under U.K. law, all U.K. companies are restricted from declaring a dividend to their shareholders unless they have "profits available for distribution." The calculation as to whether a company has sufficient profits is based on its accumulated realized profits minus its accumulated realized losses. U.K. insurance regulatory laws do not prohibit the payment of dividends, but the FSA requires that insurance companies maintain certain solvency margins and may restrict the payment of a dividend by Arch Insurance Europe. Dividends or distributions, if any, made by Arch Insurance Europe would result in an increase in available capital at Arch Re Europe, a subsidiary of the Arch Re Ltd.

**17. Subsequent Events**

The Company's 2011 first quarter results were impacted by a series of catastrophic events, including the Australian flooding and Cyclone Yasi that occurred in Australia in January 2011, the major earthquake in southern New Zealand in February 2011 and the Japanese earthquake and tsunami in March 2011, which totaled \$178.7 million, net of reinsurance and reinstatement premiums. Incorporating such amounts, the Company reported net income for the 2011 first quarter and an increase to shareholders' equity from December 31, 2010 to March 31, 2011.

The Company's estimates for these catastrophic events are based on currently available information derived from modeling techniques, industry assessments of exposure, preliminary claims information obtained from the Company's clients and brokers to date and a review of in-force contracts. The Company's actual losses from these events may vary materially from the estimates due to the inherent uncertainties in making such determinations resulting from several factors, including the preliminary nature of available information, the unprecedented nature and scale of the Japanese earthquake and tsunami event, the potential inaccuracies and inadequacies in the data provided by clients and brokers, the modeling techniques and the application of such techniques, the contingent nature of business interruption exposures, the effects of any resultant demand surge

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on claims activity and attendant coverage issues. In particular, the models used for risks affecting Japan are relatively untested by actual experience and may be subject to even greater variability. In addition, actual losses may increase if the Company's reinsurers fail to meet their obligations to the Company or the reinsurance protections purchased by the Company are exhausted or are otherwise unavailable.

The Company has completed its subsequent events evaluation for the period subsequent to the balance sheet date of December 31, 2010 through April 26, 2011, the date the consolidated financial statements were available to be issued.