

ARCH CAPITAL GROUP LTD.  
Form 10-K  
March 02, 2009

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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

**FORM 10-K**

- ý **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**  
For the Fiscal Year Ended December 31, 2008
- OR
- o **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**  
For the transition period from \_\_\_\_\_ to \_\_\_\_\_  
Commission File No. 0-26456

**ARCH CAPITAL GROUP LTD.**

(Exact name of registrant as specified in its charter)

**Bermuda**  
(State or other jurisdiction of incorporation or organization)

**Not applicable**  
(I.R.S. Employer Identification No.)

**Wessex House, 45 Reid Street  
Hamilton HM 12, Bermuda**  
(Address of principal executive offices)

**(441) 278-9250**  
(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Exchange Act:

<b>Title of Each Class</b>	<b>Name of each Exchange on which Registered</b>
Common Shares, \$0.01 par value per share	NASDAQ Stock Market (Common Shares)
8.000% Non-Cumulative Preferred Shares, Series A, \$0.01 par value per share	New York Stock Exchange
7.875% Non-Cumulative Preferred Shares, Series B, \$0.01 par value per share	

Securities registered pursuant to Section 12(g) of the Exchange Act: **None**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ý No o

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act.  
Yes o No ý

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Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Exchange Act during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes  No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer," and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer       Accelerated filer       Non-accelerated filer       Smaller reporting company   
(Do not check if a smaller reporting company)

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes  No

The aggregate market value of the voting and non-voting common equity held by non-affiliates, computed by reference to the closing price as reported by the NASDAQ Stock Market as of the last business day of the Registrant's most recently completed second fiscal quarter, was approximately \$3.64 billion.

As of February 25, 2009, there were 60,554,456 of the registrant's common shares outstanding.

### DOCUMENTS INCORPORATED BY REFERENCE

Portions of Part III and Part IV incorporate by reference our definitive proxy statement for the 2009 annual meeting of shareholders to be filed with the Securities and Exchange Commission pursuant to Regulation 14A before April 30, 2009.

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**CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS**

The Private Securities Litigation Reform Act of 1995 ("PLSRA") provides a "safe harbor" for forward-looking statements. This report or any other written or oral statements made by or on behalf of us may include forward-looking statements, which reflect our current views with respect to future events and financial performance. All statements other than statements of historical fact included in or incorporated by reference in this report are forward-looking statements. Forward-looking statements, for purposes of the PLSRA or otherwise, can generally be identified by the use of forward-looking terminology such as "may," "will," "expect," "intend," "estimate," "anticipate," "believe" or "continue" and similar statements of a future or forward-looking nature or their negative or variations or similar terminology.

Forward-looking statements involve our current assessment of risks and uncertainties. Actual events and results may differ materially from those expressed or implied in these statements. Important factors that could cause actual events or results to differ materially from those indicated in such statements are discussed below, elsewhere in this report and in our periodic reports filed with the Securities and Exchange Commission ("SEC"), and include:

our ability to successfully implement our business strategy during "soft" as well as "hard" markets;

acceptance of our business strategy, security and financial condition by rating agencies and regulators, as well as by brokers and our insureds and reinsureds;

our ability to maintain or improve our ratings, which may be affected by our ability to raise additional equity or debt financings, by ratings agencies' existing or new policies and practices, as well as other factors described herein;

general economic and market conditions (including inflation, interest rates, foreign currency exchange rates and prevailing credit terms) and conditions specific to the reinsurance and insurance markets in which we operate;

competition, including increased competition, on the basis of pricing, capacity, coverage terms or other factors;

developments in the world's financial and capital markets and our access to such markets;

our ability to successfully integrate, establish and maintain operating procedures (including the implementation of improved computerized systems and programs to replace and support manual systems) to effectively support our underwriting initiatives and to develop accurate actuarial data;

the loss of key personnel;

the integration of businesses we have acquired or may acquire into our existing operations;

accuracy of those estimates and judgments utilized in the preparation of our financial statements, including those related to revenue recognition, insurance and other reserves, reinsurance recoverables, investment valuations, intangible assets, bad debts, income taxes, contingencies and litigation, and any determination to use the deposit method of accounting, which for a relatively new insurance and reinsurance company, like our company, are even more difficult to make than those made in a mature company since relatively limited historical information has been reported to us through December 31, 2008;

greater than expected loss ratios on business written by us and adverse development on claim and/or claim expense liabilities related to business written by our insurance and reinsurance subsidiaries;



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severity and/or frequency of losses;

claims for natural or man-made catastrophic events in our insurance or reinsurance business could cause large losses and substantial volatility in our results of operations;

acts of terrorism, political unrest and other hostilities or other unforecasted and unpredictable events;

losses relating to aviation business and business produced by a certain managing underwriting agency for which we may be liable to the purchaser of our prior reinsurance business or to others in connection with the May 5, 2000 asset sale described in our periodic reports filed with the SEC;

availability to us of reinsurance to manage our gross and net exposures and the cost of such reinsurance;

the failure of reinsurers, managing general agents, third party administrators or others to meet their obligations to us;

the timing of loss payments being faster or the receipt of reinsurance recoverables being slower than anticipated by us;

our investment performance, including legislative or regulatory developments that may adversely affect the market value of our investments;

material differences between actual and expected assessments for guaranty funds and mandatory pooling arrangements;

changes in accounting principles or policies or in our application of such accounting principles or policies;

changes in the political environment of certain countries in which we operate or underwrite business;

statutory or regulatory developments, including as to tax policy and matters and insurance and other regulatory matters such as the adoption of proposed legislation that would affect Bermuda-headquartered companies and/or Bermuda-based insurers or reinsurers and/or changes in regulations or tax laws applicable to us, our subsidiaries, brokers or customers; and

the other matters set forth under Item 1A "Risk Factors", Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations" and other sections of this Annual Report on Form 10-K, as well as the other factors set forth in Arch Capital Group Ltd.'s other documents on file with the SEC, and management's response to any of the aforementioned factors.

All subsequent written and oral forward-looking statements attributable to us or persons acting on our behalf are expressly qualified in their entirety by these cautionary statements. The foregoing review of important factors should not be construed as exhaustive and should be read in conjunction with other cautionary statements that are included herein or elsewhere. We undertake no obligation to publicly update or revise any forward-looking statement, whether as a result of new information, future events or otherwise.

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**PART I**

**ITEM 1. BUSINESS**

*We refer you to Item 1A "Risk Factors" for a discussion of risk factors relating to our business.*

**OUR COMPANY**

**General**

Arch Capital Group Ltd. ("ACGL" and, together with its subsidiaries, the "Company," "we," or "us") is a Bermuda public limited liability company with over \$3.8 billion in capital at December 31, 2008 and, through operations in Bermuda, the United States, Europe and Canada, writes insurance and reinsurance on a worldwide basis. While we are positioned to provide a full range of property and casualty insurance and reinsurance lines, we focus on writing specialty lines of insurance and reinsurance.

We launched an underwriting initiative in October 2001 to meet current and future demand in the global insurance and reinsurance markets. Since that time, we have attracted a proven management team with extensive industry experience and enhanced our existing global underwriting platform for our insurance and reinsurance businesses. It is our belief that our underwriting platform, our experienced management team and our strong capital base that is unencumbered by significant pre-2002 risks have enabled us to establish a strong presence in the insurance and reinsurance markets. For 2008, our seventh full year of operation, we wrote \$2.8 billion of net premiums, reported net income available to common shareholders of \$265.1 million and earned a return on average equity of 7.8%. Diluted book value per share was \$51.36 at December 31, 2008, compared to \$55.12 per share at December 31, 2007.

ACGL's registered office is located at Clarendon House, 2 Church Street, Hamilton HM 11, Bermuda (telephone number: (441) 295-1422), and its principal executive offices are located at Wessex House, 45 Reid Street, Hamilton HM 12, Bermuda (telephone number: (441) 278-9250). ACGL makes available free of charge through its website, located at <http://www.archcapgroup.bm>, its annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and all amendments to those reports as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. The public may read and copy any materials ACGL files with the SEC at the SEC's Public Reference Room at 100 F Street, NE, Washington, D.C. 20549. The public may obtain information on the operation of the Public Reference Room by calling 1-800-SEC-0330. The SEC also maintains an Internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC (such as ACGL) and the address of that site is <http://www.sec.gov>.

**Our History**

ACGL was formed in September 2000 and became the sole shareholder of Arch Capital Group (U.S.) Inc. ("Arch-U.S.") pursuant to an internal reorganization transaction completed in November 2000, as described below. Arch-U.S. is a Delaware company formed in March 1995 under the original name of "Risk Capital Holdings, Inc.," which commenced operations in September 1995 following the completion of an initial public offering. From that time until May 2000, Arch-U.S. provided reinsurance and other forms of capital for insurance companies through its wholly owned subsidiary, Arch Reinsurance Company ("Arch Re U.S."), a Nebraska corporation formed in 1995 under the original name of "Risk Capital Reinsurance Company."

On May 5, 2000, Arch-U.S. sold the prior reinsurance operations of Arch Re U.S. to White Mountains Reinsurance Company of America ("WTM Re"), formerly known as Folksamerica Reinsurance Company, in an asset sale, but retained its surplus and U.S.-licensed reinsurance platform. The sale was precipitated by, among other things, losses on the reinsurance business of Arch Re U.S.

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and increasing competition, which had been adversely affecting the results of operations and financial condition of Arch Re U.S. The WTM Re transaction, which resulted from extensive arm's length negotiation, was structured as a transfer and assumption agreement (and not as reinsurance) and, accordingly, the loss reserves (and any related reinsurance recoverables) related to the transferred business are not included in the balance sheet of Arch Re U.S. However, in the event that WTM Re refuses or is unable to make payment of claims on the reinsurance business assumed by it in the May 2000 sale and the notice given to reinsureds is found not to be an effective release by such reinsureds, Arch Re U.S. would be liable for such claims. In addition, Arch Re U.S. retained all liabilities not assumed by WTM Re, including all liabilities not arising under reinsurance agreements transferred to WTM Re in the asset sale. On November 8, 2000, following the approval by Arch-U.S.'s shareholders, Arch-U.S. completed an internal reorganization that resulted in Arch-U.S. becoming a wholly owned subsidiary of ACGL.

During the period from May 2000 through the announcement of our underwriting initiative in October 2001, we built and acquired insurance businesses that were intended to enable us to generate both fee-based revenue (e.g., commissions and advisory and management fees) and risk-based revenue (i.e., insurance premium). As part of this strategy, we built an underwriting platform that was intended to enable us to maximize risk-based revenue during periods in the underwriting cycle when we believed it was more favorable to assume underwriting risk. In October 2001, we concluded that underwriting conditions favored dedicating our attention exclusively to building our insurance and reinsurance businesses.

The development of our underwriting platform included the following steps: (1) after the completion of the WTM Re asset sale, we retained our U.S.-licensed reinsurer, Arch Re U.S., and Arch Excess & Surplus Insurance Company ("Arch E&S"), currently an approved excess and surplus lines insurer in 47 states and the District of Columbia and an admitted insurer in one state; (2) in May 2001, we formed Arch Reinsurance Ltd. ("Arch Re Bermuda"), our Bermuda-based reinsurance and insurance subsidiary; (3) in June 2001, we acquired Arch Risk Transfer Services Ltd., which included Arch Insurance Company ("Arch Insurance"), currently an admitted insurer in 50 states, the District of Columbia, Puerto Rico, the U.S. Virgin Islands and Guam with a branch office in Canada, and rent-a-captive and other facilities that provide insurance and alternative risk transfer services; (4) in February 2002, we acquired Arch Specialty Insurance Company ("Arch Specialty"), currently an approved excess and surplus lines insurer in 49 states, the District of Columbia, Puerto Rico and the U.S. Virgin Islands and an admitted insurer in one state; (5) in June 2003, we acquired Arch Indemnity Insurance Company (formerly known as Western Diversified Casualty Insurance Company) ("Arch Indemnity"), an admitted insurer in 49 states and the District of Columbia; (6) in May 2004, our London-based subsidiary, Arch Insurance Company (Europe) Limited ("Arch Insurance Europe"), was approved by the Financial Services Authority in the U.K. to commence insurance underwriting activities and began writing a range of specialty commercial lines in Europe and the U.K. during the 2004 third quarter; (7) in January 2005, Arch Insurance received its federal license to commence underwriting in Canada and began writing business in the first quarter of 2005; and (8) in November 2006, Arch Reinsurance Ltd., Hamilton (Bermuda), European Branch Zurich ("Arch Re Bermuda Swiss Branch"), the Swiss branch of Arch Re Bermuda, was registered with the commercial register of the Canton of Zurich to commence reinsurance underwriting activities in Switzerland. All liabilities arising out of the business of Arch Specialty and Arch Indemnity prior to the closing of our acquisitions of such companies were reinsured and guaranteed by the respective sellers, Sentry Insurance a Mutual Company ("Sentry") and Protective Life Corporation and certain of its affiliates.

In 2007, we (1) formed Arch Re Accident & Health ApS ("Arch Re Denmark"), a Danish underwriting agency which conducts accident and health underwriting as a branch office of Arch Reinsurance Europe Underwriting Limited ("Arch Re Europe"), which was formed in 2008 and is described below; (2) acquired the assets of Wexford Underwriting Managers, Inc. ("Wexford"), a



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managing general agent, to write excess workers' compensation and employers' liability insurance, a new line of business for us at the time; and (3) launched our property facultative reinsurance underwriting operations which are headquartered in Farmington, Connecticut. On January 22, 2008, Arch Re Bermuda and Gulf Investment Corporation GSC ("GIC") entered into a joint venture agreement for the purpose of forming a reinsurance company in the Dubai International Financial Centre. GIC is owned equally by the six member states of the Gulf Cooperation Council ("GCC"), which include Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates. In May 2008, we 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 GIC. Gulf Re provides property and casualty reinsurance primarily in those member states of the GCC.

In 2008, we expanded our underwriting platform through the formation of Arch Re Europe, an Irish company based in Dublin which was authorized by the Irish Financial Services Regulatory Authority in October 2008 to underwrite reinsurance. The operations of Arch Re Bermuda Swiss Branch were transferred to the newly formed Swiss branch of Arch Re Europe called Arch Reinsurance Europe Underwriting Limited, Dublin (Ireland), Zurich Branch ("Arch Re Europe Swiss Branch"). Arch Re Europe Swiss Branch commenced underwriting from the date of transfer. Arch Re Bermuda Swiss Branch was de-registered as a branch in early 2009. In addition, in the first quarter of 2009, we received approval in principle from the Lloyd's Franchise Board and the Financial Services Authority in the United Kingdom to establish a managing agent and syndicate at Lloyd's. The newly formed Syndicate 2012 is expected to commence underwriting in the second quarter of 2009.

The growth of our insurance and reinsurance platforms was supported through the net proceeds of: (1) an equity capital infusion of \$763.2 million led by funds affiliated with Warburg Pincus LLC ("Warburg Pincus funds") and Hellman & Friedman LLC ("Hellman & Friedman funds") in late 2001; (2) a public offering of 7,475,000 of our common shares with net proceeds of \$179.2 million in April 2002; (3) the exercise of class A warrants by our principal shareholders and other investors in September 2002, which provided net proceeds of \$74.3 million; (4) a March 2004 public offering of 4,688,750 of our common shares with net proceeds of \$179.3 million; (5) a May 2004 public offering of \$300.0 million principal amount of our 7.35% senior notes due May 2034 with net proceeds of \$296.4 million, of which \$200.0 million was used to repay all amounts outstanding under our existing credit facility; (6) a February 2006 public offering of \$200.0 million of our 8.00% series A non-cumulative preferred shares with a liquidation preference of \$25.00 per share with net proceeds of \$193.5 million; and (7) a May 2006 public offering \$125.0 million of our 7.875% series B non-cumulative preferred shares with a liquidation preference of \$25.00 per share with net proceeds of \$120.9 million.

The board of directors of ACGL authorized the investment of up to \$1.5 billion in ACGL's common shares through a share repurchase program. Such amount consisted of a \$1.0 billion authorization in February 2007 and a \$500.0 million authorization in May 2008. Repurchases under the program may be effected from time to time in open market or privately negotiated transactions through February 2010. Since the inception of the share repurchase program, ACGL has repurchased approximately 15.3 million common shares for an aggregate purchase price of \$1.05 billion. The timing and amount of the repurchase transactions under this program will depend on a variety of factors, including market conditions and corporate and regulatory considerations. In connection with the repurchase program, the Warburg Pincus funds waived their rights relating to share repurchases under their shareholders agreement with ACGL for all repurchases of common shares by ACGL under the repurchase program in open market transactions and certain privately negotiated transactions. In May 2007, the Hellman & Friedman funds ceased to own shares of ACGL and their rights under the shareholders agreement with ACGL terminated.

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**Operations**

We classify our businesses into two underwriting segments, insurance and reinsurance. For an analysis of our underwriting results by segment, see note 3, "Segment Information," of the notes accompanying our consolidated financial statements and "Management's Discussion and Analysis of Financial Condition and Results of Operations Results of Operations."

***Our Insurance Operations***

Our insurance operations are conducted in Bermuda, the United States, Europe and Canada. Our insurance operations in Bermuda are conducted through Arch Insurance (Bermuda), a division of Arch Re Bermuda, which has an office in Hamilton, Bermuda. In the U.S., our insurance group's principal insurance subsidiaries are Arch Insurance, Arch E&S, Arch Specialty and Arch Indemnity. The headquarters for our insurance group's U.S. support operations (excluding underwriting units) relocated from New York City to Jersey City, New Jersey during the first quarter of 2009. The insurance group has additional offices throughout the U.S., including four regional offices located in: Alpharetta, Georgia; Chicago, Illinois; New York, New York; and San Francisco, California. In addition, Arch Insurance has a branch office in Toronto, Canada. Our insurance group's European operations are conducted through Arch Insurance Europe, based in London, which also has branches in Germany, Italy, Spain, Denmark and Sweden. In the first quarter of 2009, we received approval in principle from the Lloyd's Franchise Board and the Financial Services Authority in the United Kingdom to establish a managing agent and syndicate at Lloyd's. The syndicate will enhance our underwriting platform by providing us with access to Lloyd's extensive distribution network and worldwide licenses. The newly formed Syndicate 2012 is expected to commence underwriting in the second quarter of 2009. Syndicate 2012 will be managed by its managing agent, Arch Underwriting Lloyd's Ltd, based in the London office of Arch Insurance Europe. As of February 15, 2009, our insurance group had approximately 990 employees.

*Strategy.* Our insurance group's strategy is to operate in lines of business in which underwriting expertise can make a meaningful difference in operating results. The insurance group focuses on talent-intensive rather than labor-intensive business and seeks to operate profitably (on both a gross and net basis) across all of its product lines. To achieve these objectives, our insurance group's operating principles are to:

*Capitalize on Profitable Underwriting Opportunities.* Our insurance group believes that its experienced management and underwriting teams are positioned to locate and identify business with attractive risk/reward characteristics. As profitable underwriting opportunities are identified, our insurance group will continue to seek to make additions to their product portfolio in order to take advantage of market trends. This may include adding underwriting and other professionals with specific expertise in specialty lines of insurance.

*Centralize Responsibility for Underwriting.* Our insurance group consists of a range of product lines. The underwriting executive in charge of each product line oversees all aspects of the underwriting product development process within such product line. Our insurance group believes that centralizing the control of such product line with the respective underwriting executive allows for close management of underwriting and creates clear accountability for results. Our U.S. insurance group has four regional offices, and the executive in charge of each region is primarily responsible for all aspects of the marketing and distribution of our insurance group's products, including the management of broker and other producer relationships in such executive's respective region. In our non-U.S. offices, a similar philosophy is observed, with responsibility for the management of each product line residing with the senior underwriting executive in charge of such product line.

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*Maintain a Disciplined Underwriting Philosophy.* Our insurance group's underwriting philosophy is to generate an underwriting profit through prudent risk selection and proper pricing. Our insurance group believes that the key to this approach is adherence to uniform underwriting standards across all types of business. Our insurance group's senior management closely monitors the underwriting process.

*Focus on Providing Superior Claims Management.* Our insurance group believes that claims handling is an integral component of credibility in the market for insurance products. Therefore, our insurance group believes that its ability to handle claims expeditiously and satisfactorily is a key to its success. Our insurance group employs experienced claims professionals and also utilizes experienced external claims managers (third party administrators) where appropriate.

*Utilize a Brokerage Distribution System.* Our insurance group believes that by utilizing a brokerage distribution system, consisting of select international, national and regional brokers, both wholesale and retail, it can efficiently access a broad customer base while maintaining underwriting control and discipline.

Our insurance group writes business on both an admitted and non-admitted basis. Our insurance group focuses on the following areas:

*Casualty.* Our insurance group's casualty unit writes primary and excess casualty insurance coverages, including railroad and middle market energy business.

*Construction and National Accounts.* Our insurance group's construction unit provides primary and excess casualty coverages to middle and large accounts in the construction industry. The construction unit also provides coverage for environmental and design professionals, including policies for architectural and engineering firms and construction projects, pollution legal liability coverage for fixed sites, and alternative markets business, including captive insurance programs. Our insurance group's national accounts casualty unit provides a wide range of products for middle and large accounts and specializes in loss sensitive primary casualty insurance programs, including large deductible, self-insured retention and retrospectively rated programs.

*Executive Assurance.* Our insurance group's executive assurance unit focuses on directors' and officers' liability insurance coverages for corporate and financial institution clients. This unit also writes financial institution errors and omissions coverages, employment practices liability insurance, pension trust errors and omissions/fiduciary liability insurance and fidelity bonds.

*Healthcare.* Our insurance group's healthcare unit provides medical professional and general liability insurance coverages for the healthcare industry, including excess professional liability programs for large, integrated hospital systems, outpatient facilities, clinics and long-term care facilities.

*Professional Liability.* Our insurance group's professional liability unit has the following principal areas of focus: (i) large law firms and accounting firms and professional programs; and (ii) miscellaneous professional liability, including coverages for consultants, network security, securities broker-dealers, wholesalers, captive agents and managing general agents.

*Programs.* Our insurance group's programs unit targets program managers with unique expertise and niche products offering general liability, commercial automobile, inland marine and non-catastrophe-exposed property business. This unit offers primarily package policies, underwriting workers' compensation and umbrella liability business in support of desirable package programs.

*Property, Marine and Aviation (including Special Risks).* Our insurance group's property unit provides primary and excess general property insurance coverages, including catastrophe-exposed property coverage, for commercial clients. The special risks unit provides onshore and offshore



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property insurance coverages for commercial clients primarily in the energy industry. The special risks unit also provides contractors all risk, erection all risk, aerospace (consisting of aviation and satellite risks) and stand alone terrorism insurance coverage for commercial clients.

*Surety.* Our insurance group's surety unit provides contract surety coverages, including contract bonds (payment and performance bonds) for mid-size and large contractors and specialty contract bonds for homebuilders and developers.

*Other.* Our insurance group also includes the following units: (i) excess workers compensation, which provides excess workers compensation and employers' liability insurance coverages for qualified self-insured groups, associations and trusts in a wide range of businesses; (ii) lender products, which provides collateral protection insurance coverages for financial institutions and specialty insurance coverage for automotive dealers; and (iii) travel and accident, which provides specialty travel and accident and related insurance products for individual and group travelers, as well as travel agents and suppliers.

*Underwriting Philosophy.* Our insurance group's underwriting philosophy is to generate an underwriting profit (on both a gross and net basis) through prudent risk selection and proper pricing across all types of business. One key to this philosophy is the adherence to uniform underwriting standards across each product line that focuses on the following:

risk selection;

desired attachment point;

limits and retention management;

due diligence, including financial condition, claims history, management, and product, class and territorial exposure;

underwriting authority and appropriate approvals; and

collaborative decision-making.

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*Premiums Written and Geographic Distribution.* Set forth below is summary information regarding net premiums written for our insurance group:

(U.S. dollars in thousands)	Years Ended December 31,					
	2008		2007		2006	
	Amount	% of Total	Amount	% of Total	Amount	% of Total
<b>Net premiums written</b>						
Property, marine and aviation	\$ 334,635	20.2	\$ 328,967	19.2	\$ 320,928	19.4
Programs	270,449	16.3	235,793	13.7	225,653	13.7
Professional liability	246,891	14.9	269,479	15.7	276,081	16.7
Construction and national accounts	240,458	14.5	227,936	13.3	193,265	11.7
Executive assurance	193,602	11.7	185,351	10.8	193,694	11.8
Casualty	116,096	7.0	183,267	10.7	220,244	13.3
Surety	50,376	3.0	56,061	3.3	81,195	4.9
Healthcare	44,596	2.7	63,757	3.7	68,026	4.1
Other(1)	160,500	9.7	166,937	9.6	72,970	4.4
<b>Total</b>	<b>\$1,657,603</b>	<b>100.0</b>	<b>\$1,717,548</b>	<b>100.0</b>	<b>\$1,652,056</b>	<b>100.0</b>
<b>Net premiums written by client location</b>						
United States	\$1,242,906	75.0	\$1,323,376	77.1	\$1,340,792	81.2
Europe	244,849	14.8	250,824	14.6	182,815	11.0
Other	169,848	10.2	143,348	8.3	128,449	7.8
<b>Total</b>	<b>\$1,657,603</b>	<b>100.0</b>	<b>\$1,717,548</b>	<b>100.0</b>	<b>\$1,652,056</b>	<b>100.0</b>
<b>Net premiums written by underwriting location</b>						
United States	\$1,236,712	74.6	\$1,309,401	76.2	\$1,297,974	78.6
Europe	342,021	20.6	330,746	19.3	269,128	16.3
Other	78,870	4.8	77,401	4.5	84,954	5.1
<b>Total</b>	<b>\$1,657,603</b>	<b>100.0</b>	<b>\$1,717,548</b>	<b>100.0</b>	<b>\$1,652,056</b>	<b>100.0</b>

(1) Includes excess workers' compensation and employers' liability business, lender products and travel and accident business.

*Marketing.* Our insurance group's products are marketed principally through a group of licensed independent retail and wholesale brokers. Clients (insureds) are referred to our insurance group through a large number of international, national and regional brokers and captive managers who receive from the insured or insurer a set fee or brokerage commission usually equal to a percentage of gross premiums. In the past, our insurance group also entered into contingent commission arrangements with some brokers that provide for the payment of additional commissions based on volume or profitability of business. In general, our insurance group has no implied or explicit commitments to accept business from any particular broker and, neither brokers nor any other third parties have the authority to bind our insurance group, except in the case where underwriting authority may be delegated contractually to selected program administrators. Such administrators are subject to a due diligence financial and operational review prior to any such delegation of authority and ongoing reviews and audits are carried out as deemed necessary by our insurance group to assure the continuing integrity of underwriting and related business operations. See "Risk Factors Risks Relating to Our Company" We could be materially adversely affected to the extent that managing general agents, general agents and other producers in our program business exceed their underwriting authorities or

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otherwise breach obligations owed to us." For information on major brokers, see note 11, "Commitments and Contingencies Concentrations of Credit Risk," of the notes accompanying our consolidated financial statements.

*Risk Management and Reinsurance.* In the normal course of business, our insurance group may cede a portion of its premium through quota share, surplus share, excess of loss and facultative reinsurance agreements. Reinsurance arrangements do not relieve our insurance group from its obligations to insureds. 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, our insurance subsidiaries would be liable for such defaulted amounts. Our insurance subsidiaries, through their respective reinsurance security committees ("RSC"), are selective with regard to reinsurers, seeking to place reinsurance with only those reinsurers which meet and maintain specific standards of established criteria for financial strength. Each RSC evaluates the financial viability of its reinsurers through financial analysis, research and review of rating agencies' reports and also monitors reinsurance recoverables and letters of credit with unauthorized reinsurers. The financial analysis includes ongoing assessments of reinsurers, including a review of the financial stability, appropriate licensing, reputation, claims paying ability and underwriting philosophy of each reinsurer. Our insurance group will continue to evaluate its reinsurance requirements. See note 4, "Reinsurance," of the notes accompanying our consolidated financial statements.

For catastrophe-exposed insurance business, our insurance group seeks to limit the amount of exposure to catastrophic losses it assumes through a combination of managing aggregate limits, underwriting guidelines and reinsurance. For a discussion of our risk management policies, see "Management's Discussion and Analysis of Financial Condition and Results of Operations Critical Accounting Policies, Estimates and Recent Accounting Pronouncements Ceded Reinsurance" and "Risk Factors Risks Relating to Our Industry The failure of any of the loss limitation methods we employ could have a material adverse effect on our financial condition or results of operations."

*Claims Management.* Our insurance group's claims management function is performed by claims professionals, as well as experienced external claims managers (third party administrators), where appropriate. In addition to investigating, evaluating and resolving claims, members of our insurance group's claims departments work with underwriting professionals as functional teams in order to develop products and services desired by the group's customers.

***Our Reinsurance Operations***

Our reinsurance operations are conducted on a worldwide basis through our reinsurance subsidiaries, Arch Re Bermuda, Arch Re U.S. and Arch Re Europe. Arch Re Bermuda has offices in Bermuda. Arch Re Bermuda's branch office in Switzerland transferred its operations to Arch Re Europe in the fourth quarter of 2008. However, Arch Re Bermuda retained the reinsurance business written by Arch Re Bermuda Swiss Branch from its opening in 2006 until the time its operations were transferred to Arch Re Europe Swiss Branch. In the first quarter of 2009, Arch Re Bermuda Swiss Branch was formally de-registered from the commercial register of the Canton of Zurich. Our newly-formed reinsurance company, Arch Re Europe, is headquartered in Dublin with a branch office in Zurich. Arch Re Europe commenced underwriting in the fourth quarter of 2008 to complement the existing property and casualty treaty capabilities within our reinsurance group. Arch Re U.S. operates out of its office in Morristown, New Jersey. Our property facultative reinsurance operations are primarily conducted through Arch Re U.S. with certain executive functions conducted through Arch Re Facultative Underwriters Inc. located in Farmington, Connecticut. Arch Re Denmark is a subsidiary of Arch Re Bermuda which underwrote travel and accident reinsurance on behalf of Arch Insurance Europe until the end of 2008. Commencing January 1, 2009, Arch Re Denmark started underwriting travel and accident reinsurance on behalf of Arch Re Europe. As of February 15, 2009, our reinsurance group had approximately 160 employees.

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*Strategy.* Our reinsurance group's strategy is to capitalize on our financial capacity, experienced management and operational flexibility to offer multiple products through our operations. The reinsurance group's operating principles are to:

*Actively Select and Manage Risks.* Our reinsurance group only underwrites business that meets certain profitability criteria, and it emphasizes disciplined underwriting over premium growth. To this end, our reinsurance group maintains centralized control over reinsurance underwriting guidelines and authorities.

*Maintain Flexibility and Respond to Changing Market Conditions.* Our reinsurance group's organizational structure and philosophy allows it to take advantage of increases or changes in demand or favorable pricing trends. Our reinsurance group believes that its existing Bermuda-, U.S.- and European-based platform, broad underwriting expertise and substantial capital facilitates adjustments to its mix of business geographically and by line and type of coverage. Our reinsurance group believes that this flexibility allows it to participate in those market opportunities that provide the greatest potential for underwriting profitability.

*Maintain a Low Cost Structure.* Our reinsurance group believes that maintaining tight control over its staffing level and operating primarily as a broker market reinsurer permits it to maintain low operating costs relative to its capital and premiums.

Our reinsurance group writes business on both a proportional and non-proportional basis and writes both treaty and facultative business. In a proportional reinsurance arrangement (also known as pro rata reinsurance, quota share reinsurance or participating reinsurance), the reinsurer shares a proportional part of the original premiums and losses of the reinsured. The reinsurer pays the cedent a commission which is generally based on the cedent's cost of acquiring the business being reinsured (including commissions, premium taxes, assessments and miscellaneous administrative expenses) and may also include a profit factor. Non-proportional (or excess of loss) reinsurance indemnifies the reinsured against all or a specified portion of losses on underlying insurance policies in excess of a specified amount, which is called a "retention." Non-proportional business is written in layers and a reinsurer or group of reinsurers accepts a band of coverage up to a specified amount. The total coverage purchased by the cedent is referred to as a "program." Any liability exceeding the upper limit of the program reverts to the cedent.

Our reinsurance group generally seeks to write significant lines on less commoditized classes of coverage, such as specialty property and casualty reinsurance treaties. However, with respect to other classes of coverage, such as property catastrophe and casualty clash, our reinsurance group participates in a relatively large number of treaties and assumes smaller lines where it believes that it can underwrite and process the business efficiently.

Our reinsurance group focuses on the following areas:

*Casualty.* Our reinsurance group reinsures third party liability and workers' compensation exposures from ceding company clients primarily on a treaty basis. The exposures that it reinsures include, among others, directors' and officers' liability, professional liability, automobile liability, workers' compensation and excess and umbrella liability. Our reinsurance group writes this business on a proportional and non-proportional basis. On proportional and non-proportional "working casualty business," which is treated separately from casualty clash business, our reinsurance group prefers to write treaties where there is a meaningful amount of actuarial data and where loss activity is more predictable.

*Property Excluding Property Catastrophe.* Our treaty reinsurance group reinsures individual property risks of a ceding company. Property per risk treaty and pro rata reinsurance contracts written by our treaty reinsurance group cover claims from individual insurance policies issued by reinsureds and include both personal lines and commercial property exposures (principally



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covering buildings, structures, equipment and contents). The primary perils in this business include fire, explosion, collapse, riot, vandalism, wind, tornado, flood and earthquake.

Through our property facultative reinsurance group, we also write reinsurance on a facultative basis whereby the reinsurer assumes part of the risk under a single insurance contract. Facultative reinsurance is typically purchased by ceding companies for individual risks not covered by their reinsurance treaties, for unusual risks or for amounts in excess of the limits on their reinsurance treaties. Our property facultative reinsurance group focuses on commercial property risks on an excess of loss basis.

*Other Specialty.* Our reinsurance group writes other specialty lines, including non-standard automobile, surety, accident and health, workers' compensation catastrophe, trade credit and political risk.

*Property Catastrophe.* Our reinsurance group reinsures catastrophic perils for our reinsureds on a treaty basis. Treaties in this type of business provide protection for most catastrophic losses that are covered in the underlying policies written by our reinsureds. The primary perils in our reinsurance group's portfolio include hurricane, earthquake, flood, tornado, hail and fire. Our reinsurance group may also provide coverage for other perils on a case-by-case basis. Property catastrophe reinsurance provides coverage on an excess of loss basis when aggregate losses and loss adjustment expense from a single occurrence of a covered peril exceed the retention specified in the contract. The multiple claimant nature of property catastrophe reinsurance requires careful monitoring and control of cumulative aggregate exposure.

*Marine and Aviation.* Our reinsurance group writes marine business, which includes coverages for hull, cargo, transit and offshore oil and gas operations, and aviation business, which includes coverages for airline and general aviation risks. Business written may also include space business, which includes coverages for satellite assembly, launch and operation for commercial space programs.

*Other.* Our reinsurance group also writes non-traditional business, which is intended to provide insurers with risk management solutions that complement traditional reinsurance.

*Underwriting Philosophy.* Our reinsurance group employs a disciplined, analytical approach to underwriting reinsurance risks that is designed to specify an adequate premium for a given exposure commensurate with the amount of capital it anticipates placing at risk. A number of our reinsurance group's underwriters are also actuaries. It is our reinsurance group's belief that employing actuaries on the front-end of the underwriting process gives it an advantage in evaluating risks and constructing a high quality book of business.

As part of the underwriting process, our reinsurance group typically assesses a variety of factors, including:

adequacy of underlying rates for a specific class of business and territory;

the reputation of the proposed cedent and the likelihood of establishing a long-term relationship with the cedent, the geographic area in which the cedent does business, together with its catastrophe exposures, and our aggregate exposures in that area;

historical loss data for the cedent and, where available, for the industry as a whole in the relevant regions, in order to compare the cedent's historical loss experience to industry averages;

projections of future loss frequency and severity; and

the perceived financial strength of the cedent.



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*Premiums Written and Geographic Distribution.* Set forth below is summary information regarding net premiums written for our reinsurance group:

(U.S. dollars in thousands)	Years Ended December 31,					
	2008		2007		2006	
	Amount	% of Total	Amount	% of Total	Amount	% of Total
<b>Net premiums written</b>						
Casualty(1)	\$ 347,198	30.2	\$ 466,209	39.4	\$ 591,219	43.3
Property excluding property catastrophe(2)	328,684	28.6	248,367	21.0	297,080	21.8
Property catastrophe	231,146	20.1	202,203	17.1	146,751	10.7
Other specialty	146,452	12.8	148,776	12.6	218,157	16.0
Marine and aviation	90,733	7.9	110,586	9.3	109,865	8.0
Other	3,910	0.4	8,247	0.6	2,290	0.2
Total	\$ 1,148,123	100.0	\$ 1,184,388	100.0	\$ 1,365,362	100.0
<b>Net premiums written by client location</b>						
United States	\$ 631,896	55.0	\$ 688,841	58.2	\$ 770,309	56.4
Europe	331,072	28.8	258,952	21.9	368,332	27.0
Bermuda	137,215	12.0	179,935	15.2	132,618	9.7
Other	47,940	4.2	56,660	4.7	94,103	6.9
Total	\$ 1,148,123	100.0	\$ 1,184,388	100.0	\$ 1,365,362	100.0
<b>Net premiums written by underwriting location</b>						
Bermuda	\$ 662,896	57.7	\$ 691,782	58.4	\$ 813,356	59.6
United States	419,805	36.6	471,551	39.8	552,006	40.4
Other	65,422	5.7	21,055	1.8		
Total	\$ 1,148,123	100.0	\$ 1,184,388	100.0	\$ 1,365,362	100.0

(1) Includes professional liability, executive assurance and healthcare business.

(2) Includes facultative business.

*Marketing.* Our reinsurance group markets its reinsurance products through brokers, except our property facultative reinsurance group, which generally deals directly with the ceding companies. Brokers do not have the authority to bind our reinsurance group with respect to reinsurance agreements, nor does our reinsurance group commit in advance to accept any portion of the business that brokers submit to them. Our reinsurance group generally pays brokerage fees to brokers based on negotiated percentages of the premiums written through such brokers. For information on major brokers, see note 11, "Commitments and Contingencies Concentrations of Credit Risk," of the notes accompanying our consolidated financial statements.

*Risk Management and Retrocession.* Our reinsurance group currently purchases "common account" retrocessional arrangements for certain treaties. Such arrangements reduce the effect of individual or aggregate losses to all companies participating in such treaties, including the reinsurers. Our reinsurance group will continue to evaluate its retrocessional requirements. See note 4, "Reinsurance," of the notes accompanying our consolidated financial statements.

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For catastrophe exposed reinsurance business, our reinsurance group seeks to limit the amount of exposure it assumes from any one reinsured and the amount of the aggregate exposure to catastrophe losses from a single event in any one geographic zone. For a discussion of our risk management policies, see "Management's Discussion and Analysis of Financial Condition and Results of Operations Critical Accounting Policies, Estimates and Recent Accounting Pronouncements Ceded Reinsurance" and "Risk Factors Risks Relating to Our Industry The failure of any of the loss limitation methods we employ could have a material adverse effect on our financial condition or results of operations."

*Claims Management.* Claims management includes the receipt of initial loss reports, creation of claim files, determination of whether further investigation is required, establishment and adjustment of case reserves and payment of claims. Additionally, audits are conducted for both specific claims and overall claims procedures at the offices of selected ceding companies. Our reinsurance group makes use of outside consultants for claims work from time to time.

**Employees**

As of February 15, 2009, ACGL and its subsidiaries employed approximately 1,200 full-time employees.

**Reserves**

Reserve estimates are derived after extensive consultation with individual underwriters, actuarial analysis of the loss reserve development and comparison with industry benchmarks. Our reserves are established and reviewed by highly professional internal actuaries. Generally, reserves are established without regard to whether we may subsequently contest the claim. We do not currently discount our loss reserves except for excess workers' compensation and employers' liability loss reserves produced by Wexford, a new line of business for us in 2007.

Loss reserves represent estimates of what the insurer or reinsurer ultimately expects to pay on claims at a given time, based on facts and circumstances then known, and it is probable that the ultimate liability may exceed or be less than such estimates. Even actuarially sound methods can lead to subsequent adjustments to reserves that are both significant and irregular due to the nature of the risks written. Loss reserves are inherently subject to uncertainty. In establishing the reserves for losses and loss adjustment expenses, we have made various assumptions relating to the pricing of our reinsurance contracts and insurance policies and have also considered available historical industry experience and current industry conditions. The timing and amounts of actual claim payments related to recorded reserves vary based on many factors including large individual losses, changes in the legal environment, as well as general market conditions. The ultimate amount of the claim payments could differ materially from our estimated amounts. Certain lines of business written by us, such as excess casualty, have loss experience characterized as low frequency and high severity. This may result in significant variability in loss payment patterns and, therefore, may impact the related asset/liability investment management process in order to be in a position, if necessary, to make these payments. See "Management's Discussion and Analysis of Financial Condition and Results of Operations Critical Accounting Policies, Estimates and Recent Accounting Pronouncements Reserves for Losses and Loss Adjustment Expenses."

The following table represents the development of loss reserves as determined under accounting principles generally accepted in the United States of America ("GAAP") for 1998 through 2008. This table does not present accident or policy year development data and, instead, presents an analysis of the claim development of gross and net balance sheet reserves existing at each calendar year-end in subsequent calendar years. The top line of the table shows the reserves, net of reinsurance recoverables, at the balance sheet date for each of the indicated years. This represents the estimated

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amounts of net losses and loss adjustment expenses arising in all prior years that are unpaid at the balance sheet date, including incurred but not reported ("IBNR") reserves. The table also shows the re-estimated amount of the previously recorded reserves based on experience as of the end of each succeeding year. The estimate changes as more information becomes known about the frequency and severity of claims for individual years. The "cumulative redundancy (deficiency)" represents the aggregate change in the estimates over all prior years. The table also shows the cumulative amounts paid as of successive years with respect to that reserve liability. In addition, the table reflects the claim development of the gross balance sheet reserves for ending reserves at December 31, 1998 through December 31, 2007. With respect to the information in the table, it should be noted that each amount includes the effects of all changes in amounts for prior periods.

Results for 1998 to 2000 relate to our prior reinsurance operations, which were sold on May 5, 2000 to WTM Re. With respect to 2000, no reserves are reported in the table below because all reserves for business written through May 5, 2000 were assumed by WTM Re in the May 5, 2000 asset sale, and we did not write or assume any business during 2000 subsequent to the asset sale. Activity subsequent to 2000 relates to acquisitions made by us and our underwriting initiatives that commenced in October 2001.

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**Development of GAAP Reserves  
Cumulative Redundancy (Deficiency)**

(U.S. dollars in millions)	Years Ended December 31,										
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Reserve for losses and loss adjustment expenses, net of reinsurance recoverables	\$ 186	\$ 309		\$ 21	\$ 381	\$ 1,543	\$ 2,875	\$ 4,063	\$ 4,911	\$ 5,483	\$ 5,938
Cumulative net paid losses as of:											
One year later	88	311		15	82	278	449	745	843	954	
Two years later	216	311		19	141	437	811	1,332	1,486		
Three years later	216	311		24	172	596	1,110	1,688			
Four years later	216	311		26	204	706	1,300				
Five years later	216	311		26	218	787					
Six years later	216	311		25	233						
Seven years later	216	311		25							
Eight years later	216	311									
Nine years later	216	311									
Ten years later	216										
Net re-estimated reserve as of:											
One year later	216	311		25	340	1,444	2,756	3,986	4,726	5,173	
Two years later	216	311		25	335	1,353	2,614	3,809	4,387		
Three years later	216	311		27	335	1,259	2,487	3,541			
Four years later	216	311		27	312	1,237	2,353				
Five years later	216	311		28	315	1,187					
Six years later	216	311		26	302						
Seven years later	216	311		25							
Eight years later	216	311									
Nine years later	216	311									
Ten years later	216										
Cumulative net redundancy (deficiency)	\$ (30)	\$ (2)		\$ (4)	\$ 79	\$ 356	\$ 522	\$ 522	\$ 524	\$ 310	
Cumulative net redundancy (deficiency) as a percentage of net reserves	(16.1)	(1.0)		(18.7)	20.7	23.1	18.1	12.8	10.7	5.7	
Gross reserve for losses and loss adjustment expenses	\$ 216	\$ 365		\$ 111	\$ 592	\$ 1,912	\$ 3,493	\$ 5,453	\$ 6,463	\$ 7,092	\$ 7,667
Reinsurance recoverable	(30)	(56)		(90)	(211)	(369)	(618)	(1,390)	(1,552)	(1,609)	(1,729)
Net reserve for losses and loss adjustment expenses	186	309		21	381	1,543	2,875	4,063	4,911	5,483	5,938
Gross re-estimated reserve	246	367		182	548	1,509	2,903	4,955	5,824	6,775	
Re-estimated reinsurance recoverable	(30)	(56)		(157)	(246)	(322)	(550)	(1,414)	(1,437)	(1,602)	
Net re-estimated reserve	216	311		25	302	1,187	2,353	3,541	4,387	5,173	
Gross re-estimated redundancy (deficiency)	\$ (30)	\$ (2)		\$ (71)	\$ 44	\$ 403	\$ 590	\$ 498	\$ 639	\$ 317	

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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.S. dollars in thousands)	Years Ended December 31,		
	2008	2007	2006
Reserve for losses and loss adjustment expenses at beginning of year	\$ 7,092,452	\$ 6,463,041	\$ 5,452,826
Unpaid losses and loss adjustment expenses recoverable	1,609,619	1,552,157	1,389,768
Net reserve for losses and loss adjustment expenses at beginning of year	5,482,833	4,910,884	4,063,058
Increase (decrease) in net losses and loss adjustment expenses incurred relating to losses occurring in:			
Current year	2,158,914	1,829,534	1,867,344
Prior years	(310,170)	(185,364)	(76,795)
Total net incurred losses and loss adjustment expenses	1,848,744	1,644,170	1,790,549
Foreign exchange (gains) losses	(133,881)	45,192	47,711
Less net losses and loss adjustment expenses paid relating to losses occurring in:			
Current year	305,513	274,102	245,856
Prior years	954,361	843,311	744,578
Total net paid losses and loss adjustment expenses	1,259,874	1,117,413	990,434
Net reserve for losses and loss adjustment expenses at end of year	5,937,822	5,482,833	4,910,884
Unpaid losses and loss adjustment expenses recoverable	1,729,135	1,609,619	1,552,157
Reserve for losses and loss adjustment expenses at end of year	\$ 7,666,957	\$ 7,092,452	\$ 6,463,041

Our reserving method to date has to a large extent been the expected loss method, which is commonly applied when limited loss experience exists. We select the initial expected loss and loss adjustment expense ratios based on information derived by our underwriters and actuaries during the initial pricing of the business, supplemented by industry data where appropriate. These ratios consider, among other things, rate changes and changes in terms and conditions that have been observed in the market. Any estimates and assumptions made as part of the reserving process could prove to be inaccurate due to several factors, including the fact that relatively limited historical information has been reported to us through December 31, 2008. As actual loss information is reported to us and we develop our own loss experience, we will give more emphasis to other actuarial techniques.

During 2008, on a gross basis, we recorded a redundancy on reserves recorded in prior years of approximately \$317.7 million while, on a net basis, we recorded a redundancy on reserves recorded in prior years of approximately \$310.2 million. The net favorable development consisted of \$231.2 million from the reinsurance segment and \$79.0 million from the insurance segment. Of the net favorable development in the reinsurance segment, \$126.1 million came from short-tail lines, and \$105.1 million came from casualty and marine and aviation business. The development resulted from better than anticipated loss emergence. The net favorable development was partially offset by an increase in acquisition expenses of \$11.1 million. In addition, in its reserving process in 2002 and 2003, the reinsurance segment recognized that there is a possibility that the assumptions made could prove to be inaccurate due to several factors primarily related to the start up nature of its operations. Due to the availability of additional data, and based on reserve analyses, it was determined that it was no longer necessary to continue to include such factors in 2004 or subsequent periods. Based on the level of claims activity reported to date, the reinsurance segment reduced the amount of reserves it had recorded in 2002 and 2003 by \$2.7 million in 2008. Except as discussed above, the estimated favorable development in the reinsurance segment's prior year reserves did not reflect any significant changes in

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the key assumptions it made to estimate these reserves at December 31, 2007. As a result of applying a small amount of weight to its own experience, the insurance segment reduced loss selections for some lines, in particular those written on a claims-made basis and for which it now believes it has a reasonable level of credible data. The insurance segment's net favorable development of \$79.0 million was primarily due to reductions in reserves in medium-tailed and long-tailed lines of business resulting from such changes. The net favorable development was partially offset by an increase in acquisition expenses of \$15.9 million, primarily due to sliding scale arrangements on certain policies.

During 2007, on a gross basis, we recorded a redundancy on reserves recorded in prior years of approximately \$253.7 million while, on a net basis, we recorded a redundancy on reserves recorded in prior years of approximately \$185.4 million. The net favorable development consisted of \$172.7 million from the reinsurance segment and \$12.7 million from the insurance segment. Of the net favorable development in the reinsurance segment, \$110.6 million came from short-tail lines, and \$62.1 million came from casualty and marine and aviation business. The development resulted from better than anticipated loss emergence. The net favorable development was partially offset by an increase in acquisition expenses of \$18.5 million. In addition, in its reserving process in 2002 and 2003, the reinsurance segment recognized that there is a possibility that the assumptions made could prove to be inaccurate due to several factors primarily related to the start up nature of its operations. Due to the availability of additional data, and based on reserve analyses, it was determined that it was no longer necessary to continue to include such factors in 2004 or subsequent periods. Based on the level of claims activity reported to date, the reinsurance segment reduced the amount of reserves it had recorded in 2002 and 2003 by \$10.6 million in 2007. Except as discussed above, the estimated favorable development in the reinsurance segment's prior year reserves did not reflect any significant changes in the key assumptions it made to estimate these reserves at December 31, 2006. As a result of applying a small amount of weight to its own experience, the insurance segment reduced loss selections for some lines, in particular those written on a claims-made basis and for which it now believes it has a reasonable level of credible data. The insurance segment's net favorable development of \$12.7 million was primarily due to reductions in reserves in medium-tailed and long-tailed lines of business resulting from such changes, partially offset by adverse development of \$33.3 million from short-tail lines which primarily resulted from higher than expected claims development. The net favorable development was partially offset by an increase in acquisition expenses of \$9.5 million, primarily due to sliding scale arrangements on certain policies.

During 2006, on a gross basis, we recorded a deficiency on reserves recorded in prior years of approximately \$28.3 million while, on a net basis, we recorded a redundancy on reserves recorded in prior years of approximately \$76.8 million. The gross deficiency primarily resulted from adverse development on the 2005 catastrophic events while, on a net basis, a significant portion of the adverse development was covered by reinsurance. The net favorable development consisted of \$68.5 million from the reinsurance segment and \$8.3 million from the insurance segment. Of the net favorable development in the reinsurance segment, \$37.1 million came from short-tail lines, and \$31.4 million came from longer-tail lines. The development resulted from better than anticipated loss emergence and was net of \$38.1 million of adverse development on the 2005 catastrophic events, primarily in short-tail lines. The net favorable development was partially offset by an increase in acquisition expenses of \$7.8 million. As noted above, in its reserving process in 2002 and 2003, the reinsurance segment recognized that there is a possibility that the assumptions made could prove to be inaccurate due to several factors primarily related to the start up nature of its operations. Due to the availability of additional data, and based on reserve analyses, it was determined that it was no longer necessary to continue to include such factors. Following reserve reviews, and based on the level of claims activity reported to date, the reinsurance segment reduced the amount of reserves it had recorded in 2002 and 2003 by \$7.7 million in 2006. Except as discussed above, the estimated favorable development in the reinsurance segment's prior year reserves did not reflect any significant changes in the key assumptions it made to estimate these reserves at December 31, 2005. The insurance segment's net favorable development of \$8.3 million was primarily due to reductions in reserves in certain medium-tailed and



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long-tailed lines of business, in particular for those lines of business written on a claims-made basis and for which it now believes it has a reasonable level of credible data, partially offset by adverse development of \$44.0 million from short-tail lines which included \$30.8 million of adverse development on the 2005 catastrophic events.

We are subject to credit risk with respect to our reinsurance and retrocessions because the ceding of risk to reinsurers and retrocessionaires does not relieve us of our liability to the clients or companies we insure or reinsure. Our failure to establish adequate reinsurance or retrocessional arrangements or the failure of our existing reinsurance or retrocessional arrangements to protect us from overly concentrated risk exposure could adversely affect our financial condition and results of operations. Although we monitor the financial condition of our reinsurers and retrocessionaires and attempt to place coverages only with substantial, financially sound carriers, we may not be successful in doing so. See "Management's Discussion and Analysis of Financial Condition and Results of Operations Critical Accounting Policies, Estimates and Recent Accounting Pronouncements Collection of Insurance-Related Balances and Provision for Doubtful Accounts."

**Investments**

At December 31, 2008, consolidated cash and invested assets totaled approximately \$10.0 billion, consisting of \$832.9 million of cash and short-term investments, \$8.75 billion of fixed maturities and fixed maturities pledged under securities lending agreements, \$301.0 million of investment funds accounted for using the equity method and \$109.6 million of other investments. See "Management's Discussion and Analysis of Financial Condition and Results of Operations Financial Condition, Liquidity and Capital Resources Financial Condition Investable Assets" and note 7, "Investment Information," of the notes accompanying our financial statements.

The following table summarizes the market value of our cash and invested assets at December 31, 2008 and 2007:

	December 31,			
	2008		2007	
(U.S. dollars in thousands)	Estimated Market Value	% of Total	Estimated Market Value	% of Total
Cash and short-term investments(1)	\$ 832,889	8.3	\$ 939,170	9.3
Fixed maturities and fixed maturities pledged under securities lending agreements(1):				
Corporate bonds	2,019,373	20.2	2,452,527	24.2
Mortgage backed securities	1,581,736	15.8	1,234,596	12.2
U.S. government and government agencies	1,463,897	14.7	1,165,423	11.5
Commercial mortgage backed securities	1,219,737	12.2	1,315,680	13.0
Asset backed securities	970,041	9.7	1,008,030	9.9
Municipal bonds	965,966	9.7	990,325	9.8
Non-U.S. government securities	527,972	5.3	434,243	4.3
Sub-total	8,748,722	87.6	8,600,824	84.9
Investment funds accounted for using the equity method	301,027	3.0	235,975	2.3
Other investments	109,601	1.1	353,694	3.5
<b>Total cash and invested assets(1)(2)</b>	<b>\$9,992,239</b>	<b>100.0</b>	<b>\$ 10,129,663</b>	<b>100.0</b>

(1)

In our securities lending transactions, we receive 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, we have excluded \$730.2 million and \$1.5 billion, respectively, of collateral received which is reflected as "investment of funds received under securities lending agreements, at market value" and included \$728.1 million and \$1.46 billion, respectively, of "fixed maturities and



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short-term investments pledged under securities lending agreements, at market value" at December 31, 2008 and 2007.

- (2) Includes certain securities transactions entered into but not settled at the balance sheet date. Net of such amounts, total cash and investments were approximately \$9.97 billion at December 31, 2008 and \$10.12 billion at December 31, 2007.

Our current investment guidelines and approach stress preservation of capital, market liquidity and diversification of risk. Our investments are subject to market-wide risks and fluctuations, as well as to risks inherent in particular securities. At December 31, 2008, approximately 97% of our fixed maturities and fixed maturities pledged under securities lending agreements were rated investment grade by the major rating agencies, primarily Standard & Poor's Rating Services ("Standard & Poor's"), compared to 98% at December 31, 2007. At December 31, 2008 and 2007, our fixed maturities, fixed maturities pledged under securities lending agreements and short-term investments had an average credit quality rating of "AA+" and an average effective duration of approximately 3.62 years and 3.29 years, respectively.

We participate in a securities lending program under which certain of our 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." We maintain legal control over the securities we lend, retain the earnings and cash flows associated with the loaned securities and receive 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 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." At December 31, 2008, the market value and amortized cost of fixed maturities and short-term investments pledged under securities lending agreements were \$728.1 million and \$717.2 million, respectively, while collateral received totaled \$753.5 million at market value and amortized cost. The market value of the reinvested collateral totaled \$730.2 million at December 31, 2008. At December 31, 2007, the market value and amortized cost of fixed maturities and short-term investments pledged under securities lending agreements were \$1.46 billion and \$1.44 billion, respectively, while collateral received totaled \$1.5 billion at market value and amortized cost.

The credit quality distribution of our fixed maturities and fixed maturities pledged under securities lending agreements at December 31, 2008 and 2007 are shown below:

(U.S. dollars in thousands)	December 31, 2008		December 31, 2007	
	Estimated Market Value	% of Total	Estimated Market Value	% of Total
Rating(1)				
AAA	\$6,756,503	77.2	\$6,600,258	76.7
AA	815,512	9.3	882,262	10.3
A	750,947	8.6	677,047	7.9
BBB	195,319	2.2	243,610	2.8
BB	52,349	0.6	25,390	0.3
B	126,688	1.5	128,459	1.5
Lower than B	9,549	0.1	11,321	0.1
Not rated	41,855	0.5	32,477	0.4
<b>Total</b>	<b>\$8,748,722</b>	<b>100.0</b>	<b>\$8,600,824</b>	<b>100.0</b>

- (1) Ratings as assigned by the major rating agencies.

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For 2008 and 2007, set forth below is the pre-tax total return (before investment expenses) of our investment portfolio (including fixed maturities, short-term investments and fixed maturities and short-term investments pledged under securities lending agreements) compared to the benchmark return against which we measured our portfolio during the year. Our investment expenses were approximately 0.14% of average invested assets in 2008, compared to 0.15% in 2007.

	<b>Arch Portfolio</b>	<b>Benchmark Return(1)</b>
Pre-tax total return (before investment expenses):		
Year ended December 31, 2008	(2.84)%	(1.42)%
Year ended December 31, 2007	6.52%	6.97%

- (1) The benchmark return is a weighted average of the benchmarks assigned to each of our investment managers. The benchmarks used vary based on the nature of the portfolios under management. In all but a few instances, the benchmarks used are Lehman indices.

**Ratings**

Our ability to underwrite business is dependent upon the quality of its claims paying ability and financial strength ratings as evaluated by independent agencies. Such ratings from third party internationally recognized statistical rating organizations or agencies are instrumental in establishing the competitive positions of companies in our industry. We believe that the primary users of such ratings include commercial and investment banks, policyholders, brokers, ceding companies and investors. Insurance ratings are also used by insurance and reinsurance intermediaries as an important means of assessing the financial strength and quality of insurers and reinsurers, and have become an increasingly important factor in establishing the competitive position of insurance and reinsurance companies. These ratings are often an important factor in the decision by an insured or intermediary of whether to place business with a particular insurance or reinsurance provider. Periodically, rating agencies evaluate us to confirm that we continue to meet their criteria for the ratings assigned to us by them. A.M. Best Company ("A.M. Best") maintains a letter scale rating system ranging from "A++" (Superior) to "F" (In Liquidation). Moody's Investors Service ("Moody's") maintains a letter scale rating from "Aaa" (Exceptional) to "NP" (Not Prime). Standard & Poor's maintains a letter scale rating system ranging from "AAA" (Extremely Strong) to "R" (Under Regulatory Supervision). Our reinsurance subsidiaries, Arch Re U.S., Arch Re Bermuda and Arch Re Europe (Standard & Poor's rating only), and our principal insurance subsidiaries, Arch Insurance, Arch E&S, Arch Specialty, Arch Indemnity (A.M. Best and Standard & Poor's rating only), and Arch Insurance Europe, each currently has a financial strength rating of "A" (Excellent, the third highest out of fifteen rating levels) with a stable outlook from A.M. Best, "A2" (Good, the sixth highest out of 21 rating levels) with a stable outlook from Moody's and "A" (Strong, the sixth highest out of 21 rating levels) with a stable outlook from Standard & Poor's. Fitch Ratings ("Fitch") has assigned a financial strength rating of "A+" (Strong, the fifth highest out of 24 rating levels) with a stable outlook to Arch Re Bermuda.

ACGL has received counterparty (issuer) credit ratings of "BBB+" (eighth highest out of 22 rating levels) with a positive outlook from Standard & Poor's, "Baa1" (eighth highest out of 21 rating levels) with a stable outlook from Moody's and "A" long term issuer rating (sixth highest out of 23 rating levels) with a stable outlook from Fitch. A counterparty credit rating provides an opinion on an issuer's overall capacity and willingness to meet its financial commitments as they become due, but is not specific to a particular financial obligation. ACGL's senior debt was assigned a rating of "BBB+" from Standard & Poor's, "Baa1" from Moody's and "A-" from Fitch. ACGL's series A non-cumulative preferred shares and series B non-cumulative preferred shares were both assigned a "BBB-" rating by Standard & Poor's, a "Baa3" by Moody's and a "BBB+" rating by Fitch.

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The financial strength ratings assigned by rating agencies to insurance and reinsurance companies represent independent opinions of financial strength and ability to meet policyholder obligations and are not directed toward the protection of investors, nor are they recommendations to buy, hold or sell any securities. We can offer no assurances that our ratings will remain at their current levels, or that our security will be accepted by brokers and our insureds and reinsureds. A ratings downgrade or the potential for such a downgrade, or failure to obtain a necessary rating, could adversely affect both our relationships with agents, brokers, wholesalers and other distributors of our existing products and services and new sales of our products and services. In addition, under certain of the reinsurance agreements assumed by our reinsurance operations, upon the occurrence of a ratings downgrade or other specified triggering event with respect to our reinsurance operations, such as a reduction in surplus by specified amounts during specified periods, our ceding company clients may be provided with certain rights, including, among other things, the right to terminate the subject reinsurance agreement and/or to require that our reinsurance operations post additional collateral. In the event of a ratings downgrade or other triggering event, the exercise of such contract rights by our clients could have a material adverse effect on our financial condition and results of operations, as well as our ongoing business and operations. See "Management's Discussion and Analysis of Financial Condition and Results of Operations Financial Condition, Liquidity and Capital Resources Liquidity and Capital Resources."

**Competition**

The worldwide reinsurance and insurance businesses are highly competitive. We compete, and will continue to compete, with major U.S. and non-U.S. insurers and reinsurers, some of which have greater financial, marketing and management resources than we have and have had longer-term relationships with insureds and brokers than us. We compete with other insurers and reinsurers primarily on the basis of overall financial strength, ratings assigned by independent rating agencies, geographic scope of business, strength of client relationships, premiums charged, contract terms and conditions, products and services offered, speed of claims payment, reputation, employee experience, and qualifications and local presence. We also compete with new companies that continue to be formed to enter the insurance and reinsurance markets.

In our insurance business, we compete with insurers that provide specialty property and casualty lines of insurance, including: ACE Limited, Allied World Assurance Company, Ltd., American International Group, Inc., AXIS Capital Holdings Limited, Berkshire Hathaway, Inc., Chubb Corporation, Endurance Specialty Holdings Ltd., The Hartford Financial Services Group, Inc., HCC Insurance Holdings, Inc., Lloyd's of London, The Travelers Companies, W.R. Berkley Corp., XL Capital Ltd. and Zurich Insurance Group. In our reinsurance business, we compete with reinsurers that provide property and casualty lines of reinsurance, including ACE Limited, AXIS Capital Holdings Limited, Berkshire Hathaway, Inc., Endurance Specialty Holdings Ltd., Everest Re Group Ltd., Hannover Rückversicherung AG, Lloyd's of London, Montpelier Re Holdings Ltd., Munich Re Group, PartnerRe Ltd., Platinum Underwriters Holdings, Ltd., RenaissanceRe Holdings Ltd., Swiss Reinsurance Company, Transatlantic Holdings, Inc. and XL Capital Ltd. We do not believe that we have a significant market share in any of our markets.

**Regulation**

*U.S. Insurance Regulation*

*General.* In common with other insurers, our U.S.-based subsidiaries are subject to extensive governmental regulation and supervision in the various states and jurisdictions in which they are domiciled and licensed and/or approved to conduct business. The laws and regulations of the state of domicile have the most significant impact on operations. This regulation and supervision is designed to protect policyholders rather than investors. Generally, regulatory authorities have broad regulatory

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powers over such matters as licenses, standards of solvency, premium rates, policy forms, marketing practices, claims practices, investments, security deposits, methods of accounting, form and content of financial statements, reserves and provisions for unearned premiums, unpaid losses and loss adjustment expenses, reinsurance, minimum capital and surplus requirements, dividends and other distributions to shareholders, periodic examinations and annual and other report filings. In addition, transactions among affiliates, including reinsurance agreements or arrangements, as well as certain third party transactions, require prior regulatory approval from, or prior notice to, the applicable regulator under certain circumstances. Certain insurance regulatory requirements are highlighted below. In addition, regulatory authorities conduct periodic financial, claims and market conduct examinations. Arch Insurance Europe is also subject to certain governmental regulation and supervision in the various states where it has been approved as an excess and surplus lines insurer.

The New York Attorney General, various state insurance regulatory authorities and others continue to prosecute actions arising out of contingent commission payments to brokers (and the disclosures relating to such payments), "bid-rigging," "steering," and other practices in the insurance industry. Although certain brokers have announced new fee structures in response to the industry investigations and, as part of these new initiatives, have requested that our insurance subsidiaries enter into standardized payment arrangements, we have determined to negotiate payment arrangements with our brokers on a case by case basis. However, this has not affected certain agreements between our insurance subsidiaries and managing general agents providing for the payment to such agents of additional commissions based upon the profitability of the business produced by those agents. We cannot predict the effect that these prosecutions, any related investigations and/or resulting changes in insurance practices (including future legislation and/or regulations that may become applicable to our business) will have on the insurance industry, the regulatory framework or our business. See "Risk Factors Risks Relating to Our Industry Our reliance on brokers subjects us to their credit risk."

*Credit for Reinsurance.* Arch Re U.S. is subject to insurance regulation and supervision that is similar to the regulation of licensed primary insurers. However, except for certain mandated provisions that must be included in order for a ceding company to obtain credit for reinsurance ceded, the terms and conditions of reinsurance agreements generally are not subject to regulation by any governmental authority. This contrasts with admitted primary insurance policies and agreements, the rates and terms of which generally are regulated by state insurance regulators. As a practical matter, however, the rates charged by primary insurers do have an effect on the rates that can be charged by reinsurers.

A primary insurer ordinarily will enter into a reinsurance agreement only if it can obtain credit for the reinsurance ceded on its U.S. statutory-basis financial statements. In general, credit for reinsurance is allowed in the following circumstances:

if the reinsurer is licensed in the state in which the primary insurer is domiciled or, in some instances, in certain states in which the primary insurer is licensed;

if the reinsurer is an "accredited" or otherwise approved reinsurer in the state in which the primary insurer is domiciled or, in some instances, in certain states in which the primary insurer is licensed;

in some instances, if the reinsurer (a) is domiciled in a state that is deemed to have substantially similar credit for reinsurance standards as the state in which the primary insurer is domiciled and (b) meets certain financial requirements; or

if none of the above apply, to the extent that the reinsurance obligations of the reinsurer are collateralized appropriately, typically through the posting of a letter of credit for the benefit of the primary insurer or the deposit of assets into a trust fund established for the benefit of the primary insurer.

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As a result of the requirements relating to the provision of credit for reinsurance, Arch Re U.S. and Arch Re Bermuda are indirectly subject to certain regulatory requirements imposed by jurisdictions in which ceding companies are licensed.

As of February 15, 2009: (1) Arch Re U.S. is licensed or is an accredited or otherwise approved reinsurer in 50 states and the District of Columbia; (2) Arch Insurance is licensed as an insurer in 50 states, the District of Columbia, Puerto Rico, the U.S. Virgin Islands and Guam with a branch office in Canada; (3) Arch Specialty is licensed in one state and approved as an excess and surplus lines insurer in 49 states, the District of Columbia, Puerto Rico and the U.S. Virgin Islands; (4) Arch E&S is licensed in one state and approved as an excess and surplus lines insurer in 47 states and the District of Columbia; (5) Arch Indemnity is licensed as an insurer in 49 states and the District of Columbia; and (6) Arch Insurance Europe is approved as an excess and surplus lines insurer in 16 states and the District of Columbia. Neither Arch Re Bermuda nor Arch Re Europe expects to become licensed, accredited or so approved in any U.S. jurisdiction.

*Holding Company Acts.* All states have enacted legislation that regulates insurance holding company systems. These regulations generally provide that each insurance company in the system is required to register with the insurance department of its state of domicile and furnish information concerning the operations of companies within the holding company system which may materially affect the operations, management or financial condition of the insurers within the system. All transactions within a holding company system affecting insurers must be fair and reasonable. Notice to the insurance departments is required prior to the consummation of transactions affecting the ownership or control of an insurer and of certain material transactions between an insurer and any entity in its holding company system. In addition, certain of such transactions cannot be consummated without the applicable insurance department's prior approval.

*Regulation of Dividends and Other Payments from Insurance Subsidiaries.* The ability of an insurer to pay dividends or make other distributions is subject to insurance regulatory limitations of the insurance company's state of domicile. Generally, such laws limit the payment of dividends or other distributions above a specified level. Dividends or other distributions in excess of such thresholds are "extraordinary" and are subject to prior regulatory approval. Such dividends or distributions may be subject to applicable withholding or other taxes. See "Management's Discussion and Analysis of Financial Condition and Results of Operations Financial Condition, Liquidity and Capital Resources Liquidity and Capital Resources" and note 15, "Statutory Information," of the notes accompanying our financial statements.

*Insurance Regulatory Information System Ratios.* The National Association of Insurance Commissioners ("NAIC") Insurance Regulatory Information System ("IRIS") was developed by a committee of state insurance regulators and is intended primarily to assist state insurance departments in executing their statutory mandates to oversee the financial condition of insurance companies operating in their respective states. IRIS identifies 13 industry ratios (referred to as "IRIS ratios") and specifies "usual values" for each ratio. Departure from the usual values of the IRIS ratios can lead to inquiries from individual state insurance commissioners as to certain aspects of an insurer's business. For 2008, certain of our U.S.-based subsidiaries generated IRIS ratios that were outside of the usual values. To date, none of these subsidiaries has received any notice of regulatory review but there is no assurance that we may not be notified in the future.

*Accreditation.* The NAIC has instituted its Financial Regulatory Accreditation Standards Program ("FRASP") in response to federal initiatives to regulate the business of insurance. FRASP provides a set of standards designed to establish effective state regulation of the financial condition of insurance companies. Under FRASP, a state must adopt certain laws and regulations, institute required regulatory practices and procedures, and have adequate personnel to enforce such items in order to become an "accredited" state. If a state is not accredited, other states may not accept certain financial examination

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reports of insurers prepared solely by the regulatory agency in such unaccredited state. The respective states in which Arch Re U.S., Arch Insurance, Arch E&S, Arch Specialty and Arch Indemnity are domiciled are accredited states.

*Risk-Based Capital Requirements.* In order to enhance the regulation of insurer solvency, the NAIC adopted in December 1993 a formula and model law to implement risk-based capital requirements for property and casualty insurance companies. These risk-based capital requirements are designed to assess capital adequacy and to raise the level of protection that statutory surplus provides for policyholder obligations. The risk-based capital model for property and casualty insurance companies measures three major areas of risk facing property and casualty insurers:

underwriting, which encompasses the risk of adverse loss developments and inadequate pricing;

declines in asset values arising from credit risk; and

declines in asset values arising from investment risks.

An insurer will be subject to varying degrees of regulatory action depending on how its statutory surplus compares to its risk-based capital calculation. Equity investments in common stock typically are valued at 85% of their market value under the risk-based capital guidelines. For equity investments in an insurance company affiliate, the risk-based capital requirements for the equity securities of such affiliate would generally be our U.S.-based subsidiaries' proportionate share of the affiliate's risk-based capital requirement.

Under the approved formula, an insurer's total adjusted capital is compared to its authorized control level risk-based capital. If this ratio is above a minimum threshold, no company or regulatory action is necessary. Below this threshold are four distinct action levels at which a regulator can intervene with increasing degrees of authority over an insurer as the ratio of surplus to risk-based capital requirement decreases. The four action levels include:

insurer is required to submit a plan for corrective action;

insurer is subject to examination, analysis and specific corrective action;

regulators may place insurer under regulatory control; and

regulators are required to place insurer under regulatory control.

Each of our U.S. subsidiaries' surplus (as calculated for statutory purposes) is above the risk-based capital thresholds that would require either company or regulatory action.

*Guaranty Funds and Assigned Risk Plans.* Most states require all admitted insurance companies to participate in their respective guaranty funds which cover certain claims against insolvent insurers. Solvent insurers licensed in these states are required to cover the losses paid on behalf of insolvent insurers by the guaranty funds and are generally subject to annual assessments in the states by the guaranty funds to cover these losses. Participation in state-assigned risk plans may take the form of reinsuring a portion of a pool of policies or the direct issuance of policies to insureds. The calculation of an insurer's participation in these plans is usually based on the amount of premium for that type of coverage that was written by the insurer on a voluntary basis in a prior year. Assigned risk pools tend to produce losses which result in assessments to insurers writing the same lines on a voluntary basis.

*Federal Regulation.* Although state regulation is the dominant form of regulation for insurance and reinsurance business, the federal government has shown increasing concern over the adequacy of state regulation. It is not possible to predict the future impact of any potential federal regulations or other possible laws or regulations on our U.S.-based subsidiaries' capital and operations, and such laws or regulations could materially adversely affect their business.





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*Terrorism Risk Insurance Program Reauthorization Act of 2007.* On November 26, 2002, President Bush signed into law the Terrorism Risk Insurance Act of 2002, which was amended and extended by the Terrorism Risk Insurance Extension Act of 2005 and amended and extended again by the Terrorism Risk Insurance Program Reauthorization Act of 2007 ("TRIPRA") through December 31, 2014. TRIPRA provides a federal backstop for insurance-related losses resulting from any act of terrorism on U.S. soil or against certain U.S. air carriers, vessels or foreign missions. Under TRIPRA, all U.S.-based property and casualty insurers are required to make terrorism insurance coverage available in specified commercial property and casualty insurance lines. Under TRIPRA, the federal government will pay 85% of covered losses after an insurer's losses exceed a deductible determined by a statutorily prescribed formula, up to a combined annual aggregate limit for the federal government and all insurers of \$100 billion. If an act (or acts) of terrorism result in covered losses exceeding the \$100 billion annual limit, insurers with losses exceeding their deductibles will not be responsible for additional losses. The deductible for each year is based on the insurer's direct commercial earned premiums for property and casualty insurance, excluding certain lines of business such as commercial auto, surety, professional liability and earthquake lines of business, for the prior calendar year multiplied by 20%. The specified percentages for prior periods were 10% for 2004, 15% for 2005, 17.5% for 2006, 20% for 2007 and 20% for 2008, which extends through 2014.

Our U.S.-based property and casualty insurers, Arch Insurance, Arch Specialty, Arch E&S and Arch Indemnity, are subject to TRIPRA. TRIPRA specifically excludes reinsurance business and, accordingly, does not apply to our reinsurance operations. Our U.S. insurance group's deductible for 2008 was approximately \$261.7 million (i.e., 20.0% of earned premiums). Based on 2008 direct commercial earned premiums, our U.S. insurance group's deductible for 2009 is approximately \$244.1 million (i.e., 20.0% of such earned premiums).

*The Gramm-Leach-Bliley Act.* The Gramm-Leach-Bliley Act of 1999 ("GLBA"), which implements fundamental changes in the regulation of the financial services industry in the United States, was enacted on November 12, 1999. The GLBA permits the transformation of the already converging banking, insurance and securities industries by permitting mergers that combine commercial banks, insurers and securities firms under one holding company, a "financial holding company." Bank holding companies and other entities that qualify and elect to be treated as financial holding companies may engage in activities, and acquire companies engaged in activities, that are "financial" in nature or "incidental" or "complementary" to such financial activities. Such financial activities include acting as principal, agent or broker in the underwriting and sale of life, property, casualty and other forms of insurance and annuities.

Until the passage of the GLBA, the Glass-Steagall Act of 1933 had limited the ability of banks to engage in securities-related businesses, and the Bank Holding Company Act of 1956 had restricted banks from being affiliated with insurers. With the passage of the GLBA, among other things, bank holding companies may acquire insurers, and insurance holding companies may acquire banks. The ability of banks to affiliate with insurers may affect our U.S. subsidiaries' product lines by substantially increasing the number, size and financial strength of potential competitors.

*Legislative and Regulatory Proposals.* From time to time various regulatory and legislative changes have been proposed in the insurance and reinsurance industry. Among the proposals that have in the past been or are at present being considered are the possible introduction of federal regulation in addition to, or in lieu of, the current system of state regulation of insurers. In addition, there are a variety of proposals being considered by various state legislatures. In December 2008, the NAIC adopted its Reinsurance Regulatory Modernization Framework Proposal (the "Reinsurance Proposal"), which aims to eliminate the universal 100 percent collateral requirement presently imposed on foreign reinsurers, such as Arch Re Bermuda, and establishes instead a sliding scale percentage rating system for assessing collateral obligations. To this end, the Reinsurance Proposal creates two new classes of reinsurers in the United States: "national" reinsurers and "port of entry" ("POE") reinsurers. A national reinsurer is licensed and domiciled in a U.S. home state and approved by such state to

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transact reinsurance business across the U.S. while submitting solely to the regulatory authority of the home state supervisor. A POE reinsurer is defined as a non-U.S. assuming reinsurer that is certified in a port of entry state and approved by such state to provide creditable reinsurance to the U.S. market.

The Reinsurance Proposal also creates a single regulatory body, the Reinsurance Supervision Review Department ("RSRD"), that will establish uniform standards for evaluating reinsurance regulations of the United States and foreign countries. Through the use of uniform standards, the RSRD will determine whether POE reinsurers qualify for reduced collateral requirements. New York has also initiated its own collateral reform proposals, which, if adopted, would create collateral standards that, like the Reinsurance Proposal, focus primarily on the financial strength of reinsurers without regard to jurisdictions of domicile. The Reinsurance Proposal, however, is not self-executing and does not become effective until Congress enacts legislation that preempts state laws that impose higher collateral requirements than the domestic or port of entry states require.

We are unable to predict whether any of these proposed laws and regulations will be adopted, the form in which any such laws and regulations would be adopted, or the effect, if any, these developments would have on our operations and financial condition. See " U.S. Insurance Regulation General."

***Bermuda Insurance Regulation***

*The Insurance Act 1978, as Amended, and Related Regulations of Bermuda (the "Insurance Act").* As a holding company, ACGL is not subject to Bermuda insurance regulations. The Insurance Act, which regulates the insurance business of Arch Re Bermuda, provides that no person shall carry on any insurance business in or from within Bermuda unless registered as an insurer under the Insurance Act by the Bermuda Monetary Authority (the "BMA"), which is responsible for the day-to-day supervision of insurers. Under the Insurance Act, insurance business includes reinsurance business. The registration of an applicant as an insurer is subject to its complying with the terms of its registration and such other conditions as the BMA may impose from time to time.

The Insurance Act imposes solvency and liquidity standards and auditing and reporting requirements on Bermuda insurance companies and grants to the BMA powers to supervise, investigate and intervene in the affairs of insurance companies. Certain significant aspects of the Bermuda insurance regulatory framework are set forth below.

*Classification of Insurers.* The Insurance Act distinguishes between insurers carrying on long-term business and insurers carrying on general business. There are six classifications of insurers carrying on general business, with Class 4 insurers subject to the strictest regulation. Arch Re Bermuda is registered as both a long-term insurer and a Class 4 insurer in Bermuda and is regulated as such under the Insurance Act.

*Cancellation of Insurer's Registration.* An insurer's registration may be canceled by the BMA on certain grounds specified in the Insurance Act, including failure of the insurer to comply with its obligations under the Insurance Act or if, in the opinion of the BMA, the insurer has not been carrying on business in accordance with sound insurance principles. We believe we are in compliance with applicable regulations under the Insurance Act.

*Principal Representative.* An insurer is required to maintain a principal office in Bermuda and to appoint and maintain a principal representative in Bermuda. It is the duty of the principal representative upon reaching the view that there is a likelihood of the insurer for which the principal representative acts becoming insolvent or that a reportable "event" has, to the principal representative's knowledge, occurred or is believed to have occurred, to immediately notify the BMA and to make a report in writing to the BMA within 14 days setting out all the particulars of the case that are available to the principal representative.

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*Approved Independent Auditor.* A Class 4 insurer must appoint an independent auditor who annually audits and reports on the insurer's financial statements prepared under generally accepted accounting principles or international financial reporting standards ("GAAP financial statements") and statutory financial statements and the statutory financial return of the insurer, all of which, in the case of Arch Re Bermuda, are required to be filed annually with the BMA. The independent auditor must be approved by the BMA.

*Approved Actuary.* Arch Re Bermuda, as a registered long-term insurer, is required to submit an annual actuary's certificate when filing its statutory financial returns. The actuary, who is normally a qualified life actuary, must be approved by the BMA.

*Approved Loss Reserve Specialist.* As a registered Class 4 insurer, Arch Re Bermuda is required to submit an opinion of its approved loss reserve specialist with its statutory financial return in respect of its loss and loss expense provisions. The loss reserve specialist, who will normally be a qualified casualty actuary, must be approved by the BMA.

*Annual Financial Statements.* Arch Re Bermuda is required to prepare and file a statutory financial return with the BMA. The statutory financial return for a Class 4 insurer includes, among other matters, a report of the approved independent auditor on the statutory financial statements of such insurer, solvency certificates, the statutory financial statements themselves, the opinion of the loss reserve specialist and a schedule of reinsurance ceded. Effective for 2008, Arch Re Bermuda is also required to file audited GAAP basis annual financial statements, which must be made available to the public, and a risk based capital model called the Bermuda Statutory Capital Requirement ("BSCR") model described below. All filings must be registered with the BMA within four months of the end of the relevant financial year (unless specifically extended upon application to the BMA).

*Minimum Solvency Margin, Enhanced Capital Requirement and Restrictions on Dividends and Distributions.* Under the Insurance Act, Arch Re Bermuda must ensure that the value of its general business assets exceeds the amount of its general business liabilities by an amount greater than the prescribed minimum solvency margin and enhanced capital requirement. As a Class 4 insurer, Arch Re Bermuda:

is required, with respect to its general business, to maintain 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 Bermuda but Arch Re Bermuda may not deduct more than 25% of gross premiums when computing net premiums written), and (C) 15% of reserves for losses and loss adjustment expenses and other insurance reserves;

is required to maintain available statutory capital and surplus to an amount that is equal to or exceeds the target capital levels based on enhanced capital requirements calculated using the BSCR model. The BSCR model is a risk based capital model introduced by the BMA effective for 2008 that measures risk and determines enhanced capital requirements and a target capital level (defined as 120% of the enhanced capital requirement) based on Arch Re Bermuda's statutory financial statements. The BSCR model includes a schedule of fixed income investments by rating categories, a schedule of net reserves for losses and loss adjustment expenses by statutory line of business, a schedule of net premiums written by statutory line of business, risk management schedules and stress and scenario testing;

is prohibited from declaring or paying any dividends during any financial year if it is in breach of its enhanced capital requirement, solvency margin or minimum liquidity ratio or if the declaration or payment of such dividends would cause such a breach (if it has failed to meet its minimum solvency margin or minimum liquidity ratio on the last day of any financial year, Arch Re Bermuda will be prohibited, without the approval of the BMA, from declaring or paying any dividends during the next financial year);

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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 7 days before payment of such dividends) with the BMA an affidavit stating that it will continue to meet the required margins;

is prohibited, without the approval of the BMA, from reducing by 15% or more its total statutory capital as set out in its previous year's financial statements and any application for such approval must include an affidavit stating that it will continue to meet the required margins;

is required, at any time it fails to meet its enhanced capital requirement or solvency margin, to file with the BMA a written report containing certain information;

is required to establish and maintain a long-term business fund; and

is required to obtain a certain certification from its approved actuary prior to declaring or paying any dividends and such certificate will not be given unless the value of its long-term business assets exceeds its long-term business liabilities, as certified by its approved actuary, by the amount of the dividend and at least \$250,000. The amount of any such dividend shall not exceed the aggregate of the excess referenced in the preceding sentence and other funds properly available for the payment of dividends, being funds arising out of its business, other than its long-term business.

*Minimum Liquidity Ratio.* The Insurance Act provides a minimum liquidity ratio for general business insurers such as Arch Re Bermuda. An insurer engaged in general business is required to maintain the value of its relevant assets at not less than 75% of the amount of its relevant liabilities. Relevant assets include cash and time deposits, quoted investments, unquoted bonds and debentures, first liens on real estate, investment income due and accrued, accounts and premiums receivable and reinsurance balances receivable. The relevant liabilities are total general business insurance reserves and total other liabilities less deferred income tax and sundry liabilities (by interpretation, those not specifically defined).

*Long-Term Business Fund.* An insurer carrying on long-term business is required to keep its accounts in respect of its long-term business separate from any accounts kept in respect of any other business and all receipts of its long-term business form part of its long-term business fund. No payment may be made directly or indirectly from an insurer's long-term business fund for any purpose other than a purpose related to the insurer's long-term business, unless such payment can be made out of any surplus certified by the insurer's approved actuary to be available for distribution otherwise than to policyholders. Arch Re Bermuda may not declare or pay a dividend to any person other than a policyholder unless the value of the assets in its long-term business fund, as certified by its approved actuary, exceeds the liabilities of the insurer's long-term business (as certified by the insurer's approved actuary) by the amount of the dividend and at least the \$250,000 minimum solvency margin prescribed by the Insurance Act, and the amount of any such dividend may not exceed the aggregate of that excess (excluding the said \$250,000) and any other funds properly available for payment of dividends, such as funds arising out of business of the insurer other than long-term business.

*Restrictions on Transfer of Business and Winding-Up.* Arch Re Bermuda, as a long-term insurer, is subject to the following provisions of the Insurance Act:

all or any part of the long-term business, other than long-term business that is reinsurance business, may be transferred only with and in accordance with the sanction of the applicable Bermuda court; and

an insurer or reinsurer carrying on long-term business may only be wound-up or liquidated by order of the applicable Bermuda court, and this may increase the length of time and costs incurred in the winding-up of Arch Re Bermuda when compared with a voluntary winding-up or liquidation.

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*Supervision, Investigation and Intervention.* The BMA may appoint an inspector with extensive powers to investigate the affairs of an insurer if the BMA believes that an investigation is required in the interest of the insurer's policyholders or persons who may become policyholders. In order to verify or supplement information otherwise provided to the BMA, the BMA may direct an insurer to produce documents or information relating to matters connected with the insurer's business.

If it appears to the BMA that there is a risk of the insurer becoming insolvent, or that it is in breach of the Insurance Act or any conditions imposed upon its registration, the BMA may, among other things, direct the insurer (1) not to take on any new insurance business, (2) not to vary any insurance contract if the effect would be to increase the insurer's liabilities, (3) not to make certain investments, (4) to realize certain investments, (5) to maintain in, or transfer to the custody of, a specified bank, certain assets, (6) not to declare or pay any dividends or other distributions or to restrict the making of such payments and/or (7) to limit its premium income.

*Shareholder Controllers.* Any person who, directly or indirectly, becomes a holder of at least 10%, 20%, 33% or 50% of the common shares of ACGL must notify the BMA in writing within 45 days of becoming such a holder or 30 days from the date such person has knowledge of having such a holding, whichever is later. The BMA may, by written notice, object to such a person if it appears to the BMA that the person is not fit and proper to be such a holder. The BMA may require the holder to reduce their holding of common shares in ACGL and direct, among other things, that voting rights attaching to the common shares shall not be exercisable. A person that does not comply with such a notice or direction from the BMA will be guilty of an offense.

For so long as ACGL has as a subsidiary an insurer registered under the Insurance Act, the BMA may at any time, by written notice, object to a person holding 10% or more of its common shares if it appears to the BMA that the person is not or is no longer fit and proper to be such a holder. In such a case, the BMA may require the shareholder to reduce its holding of common shares in ACGL and direct, among other things, that such shareholder's voting rights attaching to the common shares shall not be exercisable. A person who does not comply with such a notice or direction from the BMA will be guilty of an offense.

***Certain Bermuda Law Considerations***

ACGL and Arch Re Bermuda have been designated as non-resident for exchange control purposes by the BMA and are required to obtain the permission of the BMA for the issue and transfer of all of their shares. The BMA has given its consent for:

the issue and transfer of ACGL's shares, up to the amount of its authorized capital from time to time, to and among persons that are non-residents of Bermuda for exchange control purposes; and

the issue and transfer of up to 20% of ACGL's shares in issue from time to time to and among persons resident in Bermuda for exchange control purposes.

Transfers and issues of ACGL's common shares to any resident in Bermuda for exchange control purposes may require specific prior approval under the Exchange Control Act 1972. Arch Re Bermuda's common shares cannot be issued or transferred without the consent of the BMA. Because we are designated as non-resident for Bermuda exchange control purposes, we are allowed to engage in transactions, and to pay dividends to Bermuda non-residents who are holders of our common shares, in currencies other than the Bermuda Dollar.

In accordance with Bermuda law, share certificates are issued only in the names of corporations or individuals. In the case of an applicant acting in a special capacity (for example, as an executor or trustee), certificates may, at the request of the applicant, record the capacity in which the applicant is acting. Notwithstanding the recording of any such special capacity, we are not bound to investigate or incur any responsibility in respect of the proper administration of any such estate or trust. We will take

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no notice of any trust applicable to any of our common shares whether or not we have notice of such trust.

ACGL and Arch Re Bermuda are incorporated in Bermuda as "exempted companies." As a result, they are exempt from Bermuda laws restricting the percentage of share capital that may be held by non-Bermudians, but they may not participate in certain business transactions, including (1) the acquisition or holding of land in Bermuda (except that required for their business and held by way of lease or tenancy for terms of not more than 50 years) without the express authorization of the Bermuda legislature, (2) the taking of mortgages on land in Bermuda to secure an amount in excess of \$50,000 without the consent of the Minister of Finance, (3) the acquisition of any bonds or debentures secured by any land in Bermuda, other than certain types of Bermuda government securities or (4) the carrying on of business of any kind in Bermuda, except in furtherance of their business carried on outside Bermuda or under license granted by the Minister of Finance. While an insurer is permitted to reinsure risks undertaken by any company incorporated in Bermuda and permitted to engage in the insurance and reinsurance business, generally it is not permitted without a special license granted by the Minister of Finance to insure Bermuda domestic risks or risks of persons of, in or based in Bermuda.

ACGL and Arch Re Bermuda also need to comply with the provisions of The Bermuda Companies Act 1981 (the "Companies Act") regulating the payment of dividends and making distributions from contributed surplus. A company shall not declare or pay a dividend, or make a distribution out of contributed surplus, if there are reasonable grounds for believing that: (a) the company is, or would after the payment be, unable to pay its liabilities as they become due; or (b) the realizable value of the company's assets would thereby be less than the aggregate of its liabilities and its issued share capital and share premium accounts. See "Management's Discussion and Analysis of Financial Condition and Results of Operations Financial Condition, Liquidity and Capital Resources Liquidity and Capital Resources" and note 15, "Statutory Information," of the notes accompanying our financial statements.

Under Bermuda law, only persons who are Bermudians, spouses of Bermudians, holders of a permanent resident's certificate or holders of a working resident's certificate ("exempted persons") may engage in gainful occupation in Bermuda without an appropriate governmental work permit. Our success may depend in part upon the continued services of key employees in Bermuda. Certain of our current key employees are not exempted persons and, as such, require specific approval to work for us in Bermuda. A work permit may be granted or extended upon showing that, after proper public advertisement, no exempted person is available who meets the minimum standards reasonably required by the employer. The Bermuda government has a policy that places a six-year term limit on individuals with work permits, subject to certain exemptions for key employees.

***United Kingdom Insurance Regulation***

*General.* The Financial Services Authority (the "FSA") regulates insurance and reinsurance companies operating in the U.K. under the Financial Services and Markets Act 2000 (the "FSMA"), including Arch Insurance Europe, our U.K.-based subsidiary. In May 2004, Arch Insurance Europe was licensed and authorized by the FSA. It holds the relevant permissions for the classes of insurance business which it underwrites in the U.K. All U.K. companies are also subject to a range of statutory provisions, including the laws and regulations of the Companies Acts 1985 and 2006 (as amended) (the "Companies Acts").

The primary statutory goals of the FSA are to maintain and promote confidence in the U.K. financial system, secure the appropriate degree of protection for consumers and reduce financial crime. The FSA regulatory regime imposes risk management, solvency and capital requirements on U.K. insurance companies. The FSA has broad authority to supervise and regulate insurance companies which extends to enforcement of the provisions of the FSMA and intervention in the operations of an

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insurance company. The FSA regime is based on principles from which all of its rules and guidance derive. Among these principles, the FSA increasingly emphasizes a "culture of compliance" in those firms it regulates. The FSA carries out regular Advanced Risk Responsive Operating Framework ("ARROW") assessments of regulated firms to ensure that compliance with its rules and guidance. The FSA conducted risk assessments of Arch Insurance Europe in 2006 and 2008, and will continue to do so again on a regular schedule. The assessment provided the FSA's views on Arch Insurance Europe's risk profile and its regulatory capital requirements. In some cases, the FSA may require remedial action or adjustments to a company's management, operations, capital requirements, claims management or business plan. The FSA has announced that greater focus will be placed on senior management arrangements, systems and controls, the fair treatment of clients and making further progress towards the development of enhanced risk-based minimum capital requirements for non life insurance companies, working together with the regulatory bodies of the Member States of the European Union ("EU") and the European Commission, which acts as the initiator of action and executive body of the EU.

*Financial Resources.* Arch Insurance Europe is required to demonstrate to the FSA that it has adequate financial assets to meet the financial resources requirement for its category. On an annual basis, Arch Insurance Europe is required to provide the FSA with its own risk-based assessment of its capital needs, taking into account comprehensive risk factors, including market, credit, operational, liquidity and group risks to generate a revised calculation of its expected liabilities which, in turn, enable the FSA to provide individual capital guidance to Arch Insurance Europe. Arch Insurance Europe's surplus is above the risk-based capital threshold allowed by the FSA's individual capital assessment of Arch Insurance Europe. The FSA requires that Arch Insurance Europe maintain a margin of solvency calculation based on the classes of business for which it is authorized and within its premium income projections applied to its worldwide general business.

*Reporting Requirements.* Like all U.K. companies, Arch Insurance Europe must file and submit its annual audited financial statements and related reports to the Registrar of Companies under the Companies Acts together with an annual return of certain core corporate information and changes from the prior year. This requirement is in addition to the regulatory returns required to be filed annually with the FSA.

*Restrictions on Payment of Dividends.* Under English law, all 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. See "Management's Discussion and Analysis of Financial Condition and Results of Operations Financial Condition, Liquidity and Capital Resources Liquidity and Capital Resources" and note 15, "Statutory Information," of the notes accompanying our financial statements.

*European Union Considerations.* As a licensed insurance company in the U.K., a Member State of the EU, Arch Insurance Europe's authorization as an insurer is recognized throughout the European Economic Area ("EEA"), subject only to certain notification and application requirements. This authorization enables Arch Insurance Europe to establish a branch in any other Member State of the EU, where it will be subject to the insurance regulations of each such Member State with respect to the conduct of its business in such Member State, but remain subject only to the financial and operational supervision by the FSA. The framework for the establishment of branches in Member States of the EU other than the U.K. was generally set forth, and remains subject to, directives by the European Council, the legislative body of the EU, which directives are then implemented in each Member State. Arch Insurance Europe currently has branches in Germany, Italy, Spain, Denmark and Sweden, and may establish branches in other Member States of the EU in the future. Further, as an



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insurer in an EU Member State, Arch Insurance Europe has the freedom to provide insurance services anywhere in the EEA subject to compliance with certain rules governing such provision, including notification to the FSA.

In addition, the European Commission, which acts as the initiator of action and executive body of the EU, has announced its intention to adopt a new directive on solvency requirements for insurers known as Solvency II. The directive has not yet formally been enacted. It is anticipated that Solvency II will not be implemented before 2013. Solvency II is a new regulatory regime which will impose economic risk-based solvency requirements across all EU Member States. Arch Insurance Europe, based in the U.K., will be required to comply with Solvency II requirements.

***Canada Insurance Regulation***

The Canadian branch office of Arch Insurance is subject to federal, as well as provincial and territorial, regulation in Canada. The Office of the Superintendent of Financial Institutions ("OSFI") is the federal regulatory body that, under the Insurance Companies Act (Canada), regulates federal Canadian and non-Canadian insurance companies operating in Canada. The primary goal of OSFI is to supervise the safety and soundness of insurance companies with the aim of securing the appropriate level of protection of insureds by imposing risk management, solvency and capital requirements on such companies. In addition, the Canadian branch is subject to regulation in the provinces and territories in which it underwrites insurance, and the primary goal of insurance regulation at the provincial and territorial levels is to govern the market conduct of insurance companies. The Canadian branch is licensed to carry on insurance business by OSFI and in each province and territory, except for Prince Edward Island.

***Switzerland Reinsurance Regulation***

In November 2006, Arch Re Bermuda opened a branch office in Zurich, Switzerland named Arch Reinsurance Ltd., Hamilton (Bermuda), European Branch Zurich. In December 2008, Arch Re Europe opened Arch Re Europe Swiss Branch as a branch office. Upon the opening of this branch in the fourth quarter of 2008, the operations of Arch Re Bermuda Swiss Branch were transferred to Arch Re Europe. Arch Re Bermuda Swiss Branch was formally de-registered from the commercial register of the Canton of Zurich in early 2009. As both Arch Re Europe and Arch Re Bermuda are domiciled outside of Switzerland and their activities were and are limited to reinsurance, their respective branches in Switzerland were and are not required to be licensed by the Swiss insurance regulatory authorities.

***Ireland Reinsurance Regulation***

*General.* The Irish Financial Services Regulatory Authority ("IFSRA") regulates insurance and reinsurance companies authorized in Ireland, including Arch Re Europe, our newly established Irish-based subsidiary. In October 2008, Arch Re Europe was licensed and authorized by IFSRA as a non-life reinsurer.

Arch Re Europe must also comply with the European Communities (Reinsurance) Regulations, 2006 rules made thereunder and, insofar as relevant to reinsurance, the Irish Insurance Acts 1909 to 2000, regulations promulgated thereunder, regulations relating to reinsurance business promulgated under the European Communities Act 1972, the Irish Central Bank Acts 1942 to 1998 as amended, regulations promulgated thereunder and directions, guidelines and codes of conduct issued by IFSRA. 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.

*Financial Resources.* 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.

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*Reporting Requirements.* Like most Irish companies, Arch Re Europe must file and submit its annual audited financial statements 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 IFSRA.

*Restrictions on Payment of Dividends.* 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, IFSRA has powers to intervene if a dividend payment were to lead to a breach of regulatory capital requirements. See "Management's Discussion and Analysis of Financial Condition and Results of Operations Financial Condition, Liquidity and Capital Resources Liquidity and Capital Resources" and note 15, "Statutory Information," of the notes accompanying our financial statements.

*European Union Considerations.* As a reinsurance company authorized in Ireland, a Member State of the EU, Arch Re Europe's authorization is recognized throughout the EEA, subject only to any notification requirements imposed by other EU Member States. This authorization enables Arch Re Europe to conduct reinsurance services, or to establish a branch, in any other Member State of the EEA. Although, in doing so, it may be subject to the laws of such Member States with respect to the conduct of its business in such Member State, company law registrations and other matters, it will remain subject to financial and operational supervision by IFSRA only. Arch Re Europe has branches in Denmark and, outside the EEA, in Switzerland.

***European Union Insurance and Reinsurance Regulation***

The single system established in the EU for regulation and supervision of the general insurance sector and its single passport regime have until recently applied only to direct insurance, and there has been no common regulation of reinsurance in the EU. However, direct insurers established in a Member State of the EEA who were also authorized by their domestic regulatory authorities to transact reinsurance have freedom to establish branches in and provide insurance services to all EEA states and that freedom has in practice been extended to their reinsurance activities. On December 9, 2005, the EU published the Reinsurance Directive (the "Directive") as a first step in harmonization of reinsurance regulation in the single market. Member States of the EU and the EEA were required to implement the Directive by December 2007. Most Member States have implemented the Directive, but a few have yet to pass the necessary legislation. For the most part, pure reinsurers established in a Member State of the EU now have freedom to establish branches in and provide services to all EEA states similar to that enjoyed by direct insurers and they will be subject to similar rules in relation to licensing and financial supervision. At present, there are Member States in which this freedom does not fully apply.

Arch Insurance Europe, being established in the U.K. and authorized by the FSA to write insurance and reinsurance, is able, subject to regulatory notifications and there being no objection from the FSA and the Member States concerned, to establish branches and provide insurance and reinsurance services in those EEA Member States which have implemented the Directive. Arch Re Europe, being established in Ireland and authorized by the IFSRA to write reinsurance, is able, subject to similar regulatory notifications and there being no objection from the IFSRA and the Member States concerned, to establish branches and provide reinsurance services in those EEA states which have implemented the Directive. The Directive itself does not prohibit EEA insurers from obtaining reinsurance from reinsurers licensed outside the EEA, such as Arch Re Bermuda. As such, Arch Re Bermuda may do business from Bermuda with EEA Member States, but it may not directly operate its

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reinsurance business within the EEA. Unless agreement is reached between the European Commission and Bermuda to accord Bermuda-based reinsurers with market access on the basis of the prudential nature of Bermuda regulation, each individual EEA Member State may impose conditions on reinsurance provided by Bermuda-based reinsurers which could restrict their future provision of reinsurance to the EEA Member State concerned. There are no indications as yet that any EEA Member State will take this course, but Hungary and the Slovak Republic have certain prohibitions on the purchase of insurance from reinsurers not authorized in the EEA. Also, a number of EEA Member States have introduced or are considering legislation that would limit the ability of Bermudian reinsurers to advertise or otherwise market their reinsurance services in those EEA Member States.

## TAX MATTERS

The following summary of the taxation of ACGL and the taxation of our shareholders is based upon current law and is for general information only. Legislative, judicial or administrative changes may be forthcoming that could affect this summary.

The following legal discussion (including and subject to the matters and qualifications set forth in such summary) of certain tax considerations (a) under "Taxation of ACGL Bermuda" and "Taxation of Shareholders Bermuda Taxation" is based upon the advice of Conyers Dill & Pearman, Hamilton, Bermuda and (b) under "Taxation of ACGL United States," "Taxation of Shareholders United States Taxation," "Taxation of Our U.S. Shareholders" and "United States Taxation of Non-U.S. Shareholders" is based upon the advice of Cahill Gordon & Reindel LLP, New York, New York (the advice of such firms does not include accounting matters, determinations or conclusions relating to the business or activities of ACGL). The summary is based upon current law and is for general information only. The tax treatment of a holder of our shares (common shares, series A non-cumulative preferred shares or series B non-cumulative preferred shares), or of a person treated as a holder of our shares for U.S. federal income, state, local or non-U.S. tax purposes, may vary depending on the holder's particular tax situation. Legislative, judicial or administrative changes or interpretations may be forthcoming that could be retroactive and could affect the tax consequences to us or to holders of our shares.

### Taxation of ACGL

#### *Bermuda*

Under current Bermuda law, ACGL is not subject to tax on income or capital gains. ACGL has obtained from the Minister of Finance under the Exempted Undertakings Tax Protection Act 1966 an assurance that, in the event that Bermuda enacts legislation imposing tax computed on profits, income, any capital asset, gain or appreciation, or any tax in the nature of estate duty or inheritance, the imposition of any such tax shall not be applicable to ACGL or to any of our operations or our shares, debentures or other obligations until March 28, 2016. We could be subject to taxes in Bermuda after that date. This assurance will be subject to the proviso that it is not to be construed so as to prevent the application of any tax or duty to such persons as are ordinarily resident in Bermuda (we are not so currently affected) or to prevent the application of any tax payable in accordance with the provisions of the Land Tax Act 1967 or otherwise payable in relation to any property leased to us or our insurance subsidiary. We pay annual Bermuda government fees, and our Bermuda insurance and reinsurance subsidiary pays annual insurance license fees. In addition, all entities employing individuals in Bermuda are required to pay a payroll tax and other sundry taxes payable, directly or indirectly, to the Bermuda government.

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*United States*

ACGL 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 definitive identification of activities which constitute being engaged in a trade or business in the U.S. is not provided by the Internal Revenue Code of 1986, as amended (the "Code"), or regulations or court decisions, there can be no assurance that the U.S. Internal Revenue Service will not contend successfully that ACGL or its non-U.S. subsidiaries are or have been engaged in a trade or business in the United States. A foreign corporation deemed to be so engaged would be subject to U.S. income tax, as well as the branch profits tax, on its income, which is treated as effectively connected with the conduct of that trade or business unless the corporation is entitled to relief under the permanent establishment provisions of a tax treaty. Such income tax, if imposed, would be based on effectively connected income computed in a manner generally analogous to that applied to the income of a domestic corporation, except that deductions and credits generally are not permitted unless the foreign corporation has timely filed a U.S. federal income tax return in accordance with applicable regulations. Penalties may be assessed for failure to file tax returns. The 30% branch profits tax is imposed on net income after subtracting the regular corporate tax and making certain other adjustments.

Under the income tax treaty between Bermuda and the United States (the "Treaty"), ACGL's Bermuda insurance subsidiaries will be subject to U.S. income tax on any insurance premium income found to be effectively connected with a U.S. trade or business only if that trade or business is conducted through a permanent establishment in the United States. No regulations interpreting the Treaty have been issued. While there can be no assurances, ACGL does not believe that any of its Bermuda insurance subsidiaries has a permanent establishment in the United States. Such subsidiaries would not be entitled to the benefits of the Treaty if (i) less than 50% of ACGL's shares were beneficially owned, directly or indirectly, by Bermuda residents or U.S. citizens or residents, or (ii) any such subsidiary's income were used in substantial part to make disproportionate distributions to, or to meet certain liabilities to, persons who are not Bermuda residents or U.S. citizens or residents. While there can be no assurances, ACGL believes that its Bermuda insurance subsidiaries are eligible for Treaty benefits.

The Treaty clearly applies to premium income, but may be construed as not protecting investment income. If ACGL's Bermuda insurance subsidiaries were considered to be engaged in a U.S. trade or business and were entitled to the benefits of the Treaty in general, but the Treaty were not found to protect investment income, a portion of such subsidiaries' investment income could be subject to U.S. federal income tax.

Non-U.S. insurance companies carrying on an insurance business within the United States have a certain minimum amount of effectively connected net investment income, determined in accordance with a formula that depends, in part, on the amount of U.S. risk insured or reinsured by such companies. If any of ACGL's non-U.S. insurance subsidiaries is considered to be engaged in the conduct of an insurance business in the United States, a significant portion of such company's investment income could be subject to U.S. income tax.

Non-U.S. corporations not engaged in a trade or business in the United States are nonetheless subject to U.S. income tax on certain "fixed or determinable annual or periodic gains, profits and income" derived from sources within the United States as enumerated in Section 881(a) of the Code (such as dividends and certain interest on investments), subject to exemption under the Code or reduction by applicable treaties.

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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 4% for non-life insurance premiums and 1% for life insurance and all reinsurance premiums.

*Personal Holding Company Rules.* A domestic corporation will not be classified as a personal holding company (a "PHC") in a given taxable year unless both (i) at some time during the last half of such taxable year, five or fewer individuals (without regard to their citizenship or residency) own or are deemed to own (pursuant to certain constructive ownership rules) more than 50% of the corporation's shares by value, and (ii) at least 60% of the adjusted ordinary gross income of the corporation for such taxable year consists of PHC income (as defined in Section 543 of the Code). For purposes of the 50% share ownership test, all of our shares owned by an investment partnership will be attributed to each of its partners, if any, who are individuals. As a result of this attribution rule, we believe that currently five or fewer individuals may be treated as owning more than 50% of the value of our shares. Consequently, one or more of our domestic subsidiaries could be or become PHCs, depending on whether any of our subsidiaries satisfy the PHC gross income test.

We will use commercially reasonable efforts to cause each of our domestic subsidiaries not to satisfy the gross income requirement set forth in Section 542(a) of the Code. If, however, any of our domestic subsidiaries is or were to become a PHC in a given taxable year, such company would be subject to PHC tax (at a 15% rate for taxable years before January 1, 2011, and thereafter at the highest marginal rate on ordinary income applicable to individuals) on its "undistributed PHC income." PHC income generally would not include underwriting income. If any of our subsidiaries is or becomes a PHC, there can be no assurance that the amount of PHC income would be immaterial.

Certain of our U.S. subsidiaries have been PHCs. Such subsidiaries did not have "undistributed personal holding company income" and do not expect to have "undistributed personal holding company income" in 2008.

There can be no assurance that each of our domestic subsidiaries is not or will not become a PHC in the future because of factors including factual uncertainties regarding the application of the PHC rules, the makeup of our shareholder base and other circumstances that affect the application of the PHC rules to our domestic subsidiaries.

*United Kingdom*

Our U.K. subsidiaries, including Arch Insurance Europe, are companies incorporated in the U.K. and are therefore resident in the U.K. for corporation tax purposes and will be subject to U.K. corporate tax on their respective worldwide profits. The current rate of U.K. corporation tax is 28% on profits, reduced from 30% effective April 1, 2008.

*Canada*

In January 2005, Arch Insurance received its federal license to commence underwriting in Canada and began writing business in the first quarter of 2005 through its branch operation. The branch operation is taxed on net business income earned in Canada. The general federal corporate income tax rate in Canada is currently 19%. The general federal corporate income tax rate in Canada is legislated to be reduced to 18% in 2010, 16.5% in 2011 and, finally, 15% in 2012. Provincial and territorial corporate income tax rates are added to the general federal corporate income tax rate and generally vary between 10% and 16.0%. Canadian income taxes are also creditable to our U.S. operations.

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***Ireland***

In October 2008, our Irish subsidiary, Arch Re Europe, received regulatory approval and commenced writing business in the first quarter of 2009. Arch Re Europe is incorporated and resident in Ireland for corporation tax purposes and will be subject to Irish corporate tax on its worldwide profits, including profits of its Swiss branch operations. Any Swiss tax payable will be creditable against Arch Re Europe's Irish corporate tax liability. The current rate of Irish corporation tax is 12.5%.

***Switzerland***

Arch Re Bermuda Swiss Branch was established as a branch office of Arch Re Bermuda, but was de-registered from the commercial register of the Canton of Zurich in the first quarter of 2009. Its operations were transferred to Arch Re Europe's Swiss branch in the fourth quarter of 2008. Arch Re Bermuda Swiss Branch was, and Arch Re Europe Swiss Branch is, subject to Swiss corporation tax on the profit which is allocated to the branch. Under a mixed company ruling, the effective tax rate is expected to be between 11.4% and 12.6%. The annual capital tax on the equity which is allocated to Arch Re Bermuda Swiss Branch is approximately .035%. The same tax treatment will apply to Arch Re Europe Swiss Branch.

***Denmark***

Arch Re Denmark, established as a subsidiary of Arch Re Bermuda, is subject to Danish corporation taxes on its profits at a rate of 25%.

**Taxation of Shareholders**

The following summary sets forth certain United States federal income tax considerations related to the purchase, ownership and disposition of our common shares and our series A non-cumulative preferred shares and our series B non-cumulative preferred shares (collectively referred to as the "preferred shares"). Unless otherwise stated, this summary deals only with shareholders ("U.S. Holders") that are United States Persons (as defined below) who hold their common shares and preferred shares as capital assets and as beneficial owners. The following discussion is only a general summary of the United States federal income tax matters described herein and does not purport to address all of the United States federal income tax consequences that may be relevant to a particular shareholder in light of such shareholder's specific circumstances. In addition, the following summary does not describe the United States federal income tax consequences that may be relevant to certain types of shareholders, such as banks, insurance companies, regulated investment companies, real estate investment trusts, financial asset securitization investment trusts, dealers in securities or traders that adopt a mark-to-market method of tax accounting, tax exempt organizations, expatriates or persons who hold the common shares or preferred shares as part of a hedging or conversion transaction or as part of a straddle, who may be subject to special rules or treatment under the Code. This discussion is based upon the Code, the Treasury regulations promulgated thereunder and any relevant administrative rulings or pronouncements or judicial decisions, all as in effect on the date of this annual report and as currently interpreted, and does not take into account possible changes in such tax laws or interpretations thereof, which may apply retroactively. This discussion does not include any description of the tax laws of any state or local governments within the United States, or of any foreign government, that may be applicable to our common shares or preferred shares or the shareholders. Persons considering making an investment in the common shares or preferred shares should consult their own tax advisors concerning the application of the United States federal tax laws to their particular situations as well as any tax consequences arising under the laws of any state, local or foreign taxing jurisdiction prior to making such investment.

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If a partnership holds our common shares or preferred shares, the tax treatment of a partner will generally depend upon the status of the partner and the activities of the partnership. If you are a partner of a partnership holding our common shares or preferred shares, you should consult your tax advisor.

For purposes of this discussion, the term "United States Person" means:

a citizen or resident of the United States,

a corporation or entity treated as a corporation created or organized in or under the laws of the United States, or any political subdivision thereof,

an estate the income of which is subject to United States federal income taxation regardless of its source,

a trust if either (x) a court within the United States is able to exercise primary supervision over the administration of such trust and one or more United States Persons have the authority to control all substantial decisions of such trust or (y) the trust has a valid election in effect to be treated as a United States Person for U.S. federal income tax purposes or

any other person or entity that is treated for U.S. federal income tax purposes as if it were one of the foregoing.

***Bermuda Taxation***

Currently, there is no Bermuda withholding tax on dividends paid by us.

***United States Taxation***

***Taxation of Dividends.*** The preferred shares should be properly classified as equity rather than debt for U.S. federal income tax purposes. Subject to the discussions below relating to the potential application of the CFC and PFIC rules, as defined below, cash distributions, if any, made with respect to our common shares or preferred shares will constitute dividends for U.S. federal income tax purposes to the extent paid out of our current or accumulated earnings and profits (as computed using U.S. tax principles). If a U.S. Holder of our common shares or our preferred shares is an individual or other non-corporate holder, dividends paid, if any, to that holder in taxable years beginning before January 1, 2011 that constitute qualified dividend income will be taxable at the rate applicable for long-term capital gains (generally up to 15%), provided that such person meets a holding period requirement. Generally in order to meet the holding period requirement, the United States Person must hold the common shares for more than 60 days during the 121-day period beginning 60 days before the ex-dividend date and must hold preferred shares for more than 90 days during the 181-day period beginning 90 days before the ex-dividend date. Dividends paid, if any, with respect to common shares or preferred shares generally will be qualified dividend income, provided the common shares or preferred shares are readily tradable on an established securities market in the U.S. in the year in which the shareholder receives the dividend (which should be the case for shares that are listed on the NASDAQ Stock Market or the New York Stock Exchange) and ACGL is not considered to be a passive foreign investment company in either the year of the distribution or the preceding taxable year. No assurance can be given that the preferred shares will be considered readily tradable on an established securities market in the United States. See "Taxation of Our U.S. Shareholders" below. After December 31, 2010, qualified dividend income will no longer be taxed at the rate applicable for long-term capital gains unless Congress enacts legislation providing otherwise.

Distributions with respect to the common shares and the preferred shares will not be eligible for the dividends-received deduction allowed to U.S. corporations under the Code. To the extent distributions on our common shares and preferred shares exceed our earnings and profits, they will be

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treated first as a return of the U.S. Holder's basis in our common shares and our preferred shares to the extent thereof, and then as gain from the sale of a capital asset.

*Sale, Exchange or Other Disposition.* Subject to the discussions below relating to the potential application of the CFC and PFIC rules, holders of common shares and preferred shares generally will recognize capital gain or loss for U.S. federal income tax purposes on the sale, exchange or disposition of common shares or preferred shares, as applicable.

*Redemption of Preferred Shares.* A redemption of the preferred shares will be treated under section 302 of the Code as a dividend if we have sufficient earnings and profits, unless the redemption satisfies one of the tests set forth in section 302(b) of the Code enabling the redemption to be treated as a sale or exchange, subject to the discussion herein relating to the potential application of the CFC, RPII and PFIC rules. Under the relevant Code section 302(b) tests, the redemption should be treated as a sale or exchange only if it (1) is substantially disproportionate, (2) constitutes a complete termination of the holder's stock interest in us or (3) is "not essentially equivalent to a dividend." In determining whether any of these tests are met, shares considered to be owned by the holder by reason of certain constructive ownership rules set forth in the Code, as well as shares actually owned, must generally be taken into account. It may be more difficult for a United States Person who owns, actually or constructively by operation of the attribution rules, any of our other shares to satisfy any of the above requirements. The determination as to whether any of the alternative tests of section 302(b) of the Code is satisfied with respect to a particular holder of the preference shares depends on the facts and circumstances as of the time the determination is made.

**Taxation of Our U.S. Shareholders**

*Controlled Foreign Corporation Rules*

Under our bye-laws, the 9.9% voting restriction applicable to the Controlled Shares of a U.S. Person (as defined in our bye-laws) generally does not apply to certain of our investors. As a result of certain attribution rules, we believe, therefore, that we and our foreign subsidiaries might be controlled foreign corporations ("CFCs"). That status as a CFC would not cause us or any of our subsidiaries to be subject to U.S. federal income tax. Such status also would have no adverse U.S. federal income tax consequences for any U.S. Holder that is considered to own less than 10% of the total combined voting power of our shares or those of our foreign subsidiaries. Only U.S. Holders that are considered to own 10% or more of the total combined voting power of our shares or those of our foreign subsidiaries (taking into account shares actually owned by such U.S. Holder as well as shares attributed to such U.S. Holder under the Code or the regulations thereunder) (a "10% U.S. Voting Shareholder") would be affected by our status as a CFC. The preferred shares generally should not be considered voting stock for purposes of determining whether a United States Person would be a "10% U.S. Voting Shareholder." The shares may, however, become entitled to vote (as a class along with any other class of preferred shares of ACGL then outstanding) for the election of two additional members of the board of directors of ACGL if ACGL does not declare and pay dividends for the equivalent of six or more dividend periods. In such case, the preferred shares should be treated as voting stock for as long as such voting rights continue. Our bye-laws are intended to prevent any U.S. Holder from being considered a 10% U.S. Voting Shareholder by limiting the votes conferred by the Controlled Shares (as defined in our bye-laws) of any U.S. Person to 9.9% of the total voting power of all our shares entitled to vote. However, because under our bye-laws certain funds associated with Warburg Pincus and Hellman & Friedman generally are entitled to vote their directly owned common shares in full, a U.S. Holder that is attributed (under the Code or the regulations thereunder) common shares owned by such funds may be considered a 10% U.S. Voting Shareholder. If you are a direct or indirect investor in a fund associated with Warburg Pincus or Hellman & Friedman, additional common shares could be attributed to you for purposes of determining whether you are considered to be a 10% U.S. Voting Shareholder. If we are a CFC, a U.S. Holder that is considered a 10% U.S. Voting Shareholder would



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be subject to current U.S. federal income taxation (at ordinary income tax rates) to the extent of all or a portion of the undistributed earnings and profits of ACGL and our subsidiaries attributable to "subpart F income" (including certain insurance premium income and investment income) and may be taxable at ordinary income tax rates on any gain realized on a sale or other disposition (including by way of repurchase or liquidation) of our shares to the extent of the current and accumulated earnings and profits attributable to such shares.

While our bye-laws are intended to prevent any member from being considered a 10% U.S. Voting Shareholder (except as described above), there can be no assurance that a U.S. Holder will not be treated as a 10% U.S. Voting Shareholder, by attribution or otherwise, under the Code or any applicable regulations thereunder. See "Risk Factors Risks Relating to Taxation U.S. persons who hold our common shares or preferred shares may be subject to U.S. income taxation at ordinary income rates on our undistributed earnings and profits."

***Related Person Insurance Income Rules***

Generally, we do not expect the gross "related person insurance income" ("RPII") of any of our non-U.S. subsidiaries to equal or exceed 20% of its gross insurance income in any taxable year for the foreseeable future and do not expect the direct or indirect insureds (and related persons) of any such subsidiary to directly or indirectly own 20% or more of either the voting power or value of our stock. Consequently, we do not expect any U.S. person owning common shares or preferred shares to be required to include in gross income for U.S. federal income tax purposes RPII income, but there can be no assurance that this will be the case.

Section 953(c)(7) of the Code generally provides that Section 1248 of the Code (which generally would require a U.S. Holder to treat certain gains attributable to the sale, exchange or disposition of common shares or preferred shares as a dividend) will apply to the sale or exchange by a U.S. shareholder of shares in a foreign corporation that is characterized as a CFC under the RPII rules if the foreign corporation would be taxed as an insurance company if it were a domestic corporation, regardless of whether the U.S. shareholder is a 10% U.S. Voting Shareholder or whether the corporation qualifies for either the RPII 20% ownership exception or the RPII 20% gross income exception. Although existing Treasury Department regulations do not address the question, proposed Treasury regulations issued in April 1991 create some ambiguity as to whether Section 1248 and the requirement to file Form 5471 would apply when the foreign corporation has a foreign insurance subsidiary that is a CFC for RPII purposes and that would be taxed as an insurance company if it were a domestic corporation. We believe that Section 1248 and the requirement to file Form 5471 will not apply to a less than 10% U.S. Shareholder because ACGL is not directly engaged in the insurance business. There can be no assurance, however, that the U.S. Internal Revenue Service will interpret the proposed regulations in this manner or that the Treasury Department will not take the position that Section 1248 and the requirement to file Form 5471 will apply to dispositions of our common shares or our preferred shares.

If the U.S. Internal Revenue Service or U.S. Treasury Department were to make Section 1248 and the Form 5471 filing requirement applicable to the sale of our shares, we would notify shareholders that Section 1248 of the Code and the requirement to file Form 5471 will apply to dispositions of our shares. Thereafter, we would send a notice after the end of each calendar year to all persons who were shareholders during the year notifying them that Section 1248 and the requirement to file Form 5471 apply to dispositions of our shares by U.S. Holders. We would attach to this notice a copy of Form 5471 completed with all our information and instructions for completing the shareholder information.

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***Tax-Exempt Shareholders***

Tax-exempt entities may be required to treat certain Subpart F insurance income, including RPII, that is includible in income by the tax-exempt entity as unrelated business taxable income. Prospective investors that are tax exempt entities are urged to consult their tax advisors as to the potential impact of the unrelated business taxable income provisions of the Code.

***Passive Foreign Investment Companies***

Sections 1291 through 1298 of the Code contain special rules applicable with respect to foreign corporations that are "passive foreign investment companies" ("PFICs"). In general, a foreign corporation will be a PFIC if 75% or more of its income constitutes "passive income" or 50% or more of its assets produce passive income. If we were to be characterized as a PFIC, U.S. Holders would be subject to a penalty tax at the time of their sale of (or receipt of an "excess distribution" with respect to) their common shares or preferred shares. In general, a shareholder receives an "excess distribution" if the amount of the distribution is more than 125% of the average distribution with respect to the shares during the three preceding taxable years (or shorter period during which the taxpayer held the stock). In general, the penalty tax is equivalent to an interest charge on taxes that are deemed due during the period the shareholder owned the shares, computed by assuming that the excess distribution or gain (in the case of a sale) with respect to the shares was taxable in equal portions throughout the holder's period of ownership. The interest charge is equal to the applicable rate imposed on underpayments of U.S. federal income tax for such period. A U.S. shareholder may avoid some of the adverse tax consequences of owning shares in a PFIC by making a qualified electing fund ("QEF") election. A QEF election is revocable only with the consent of the IRS and has the following consequences to a shareholder:

For any year in which ACGL is not a PFIC, no income tax consequences would result.

For any year in which ACGL is a PFIC, the shareholder would include in its taxable income a proportionate share of the net ordinary income and net capital gains of ACGL and certain of its non-U.S. subsidiaries.

The PFIC statutory provisions contain an express exception for income "derived in the active conduct of an insurance business by a corporation which is predominantly engaged in an insurance business..." This exception is intended to ensure that income derived by a bona fide insurance company is not treated as passive income, except to the extent such income is attributable to financial reserves in excess of the reasonable needs of the insurance business. The PFIC statutory provisions contain a look-through rule that states that, for purposes of determining whether a foreign corporation is a PFIC, such foreign corporation shall be treated as if it "received directly its proportionate share of the income" and as if it "held its proportionate share of the assets" of any other corporation in which it owns at least 25% of the stock. We believe that we are not a PFIC, and we will use reasonable best efforts to cause us and each of our non-U.S. insurance subsidiaries not to constitute a PFIC.

No regulations interpreting the substantive PFIC provisions have yet been issued. Each U.S. Holder should consult his tax advisor as to the effects of these rules.

**United States Taxation of Non-U.S. Shareholders**

***Taxation of Dividends***

Cash distributions, if any, made with respect to common shares or preferred shares held by shareholders who are not United States Persons ("Non-U.S. holders") generally will not be subject to United States withholding tax.

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***Sale, Exchange or Other Disposition***

Non-U.S. holders of common shares or preferred shares generally will not be subject to U.S. federal income tax with respect to gain realized upon the sale, exchange or other disposition of such shares unless such gain is effectively connected with a U.S. trade or business of the Non-U.S. holder in the United States or such person is present in the United States for 183 days or more in the taxable year the gain is realized and certain other requirements are satisfied.

***Information Reporting and Backup Withholding***

Non-U.S. holders of common shares or preferred shares will not be subject to U.S. information reporting or backup withholding with respect to dispositions of common shares effected through a non-U.S. office of a broker, unless the broker has certain connections to the United States or is a United States person. No U.S. backup withholding will apply to payments of dividends, if any, on our common shares or our preferred shares.

***Other Tax Laws***

Shareholders should consult their own tax advisors with respect to the applicability to them of the tax laws of other jurisdictions.

**ITEM 1A. RISK FACTORS**

Set forth below are risk factors relating to our business. You should also refer to the other information provided in this report, including our "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our accompanying consolidated financial statements, as well as the information under the heading "Cautionary Note Regarding Forward-Looking Statements."

**Risks Relating to Our Industry**

*We operate in a highly competitive environment, and we may not be able to compete successfully in our industry.*

The insurance and reinsurance industry is highly competitive. We compete with major U.S. and non-U.S. insurers and reinsurers, many of which have greater financial, marketing and management resources than we do, as well as other potential providers of capital willing to assume insurance and/or reinsurance risk. We also compete with new companies that continue to be formed to enter the insurance and reinsurance markets. In our insurance business, we compete with insurers that provide specialty property and casualty lines of insurance, including ACE Limited, Allied World Assurance Company, Ltd., American International Group, Inc., AXIS Capital Holdings Limited, Berkshire Hathaway, Inc., Chubb Corporation, Endurance Specialty Holdings Ltd., The Hartford Financial Services Group, Inc., HCC Insurance Holdings, Inc., Lloyd's of London, The Travelers Companies, W.R. Berkley Corp., XL Capital Ltd. and Zurich Insurance Group. In our reinsurance business, we compete with reinsurers that provide property and casualty lines of reinsurance, including ACE Limited, AXIS Capital Holdings Limited, Berkshire Hathaway, Inc., Endurance Specialty Holdings Ltd., Everest Re Group Ltd., Hannover Rückversicherung AG, Lloyd's of London, Montpelier Re Holdings Ltd., Munich Re Group, PartnerRe Ltd., Platinum Underwriters Holdings, Ltd., RenaissanceRe Holdings Ltd., Swiss Reinsurance Company, Transatlantic Holdings, Inc. and XL Capital Ltd. We do not believe that we have a significant market share in any of our markets.

Financial institutions and other capital markets participants also offer alternative products and services similar to our own or alternative products that compete with insurance and reinsurance products. In addition, we may not be aware of other companies that may be planning to enter the segments of the insurance and reinsurance market in which we operate.

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Our competitive position is based on many factors, including our perceived overall financial strength, ratings assigned by independent rating agencies, geographic scope of business, client relationships, premiums charged, contract terms and conditions, products and services offered (including the ability to design customized programs), speed of claims payment, reputation, experience and qualifications of employees and local presence. We may not be successful in competing with others on any of these bases, and the intensity of competition in our industry may erode profitability and result in less favorable policy terms and conditions for insurance and reinsurance companies generally, including us.

*The insurance and reinsurance industry is highly cyclical, and we expect to continue to experience periods characterized by excess underwriting capacity and unfavorable premium rates.*

Historically, insurers and reinsurers have experienced significant fluctuations in operating results due to competition, frequency of occurrence or severity of catastrophic events, levels of capacity, general economic conditions, changes in legislation, case law and prevailing concepts of liability and other factors. In particular, demand for reinsurance is influenced significantly by the underwriting results of primary insurers and prevailing general economic conditions. The supply of insurance and reinsurance is related to prevailing prices and levels of surplus capacity that, in turn, may fluctuate in response to changes in rates of return being realized in the insurance and reinsurance industry. As a result, the insurance and reinsurance business historically has been a cyclical industry characterized by periods of intense price competition due to excessive underwriting capacity as well as periods when shortages of capacity permitted favorable premium levels and changes in terms and conditions. The supply of insurance and reinsurance has increased over the past several years and may increase further, either as a result of capital provided by new entrants or by the commitment of additional capital by existing insurers or reinsurers. Continued increases in the supply of insurance and reinsurance may have consequences for us, including fewer contracts written, lower premium rates, increased expenses for customer acquisition and retention, and less favorable policy terms and conditions.

*We could face unanticipated losses from war, terrorism and political instability, and these or other unanticipated losses could have a material adverse effect on our financial condition and results of operations.*

We have substantial exposure to unexpected, large losses resulting from future man-made catastrophic events, such as acts of war, acts of terrorism and political instability. These risks are inherently unpredictable. It is difficult to predict the timing of such events with statistical certainty or estimate the amount of loss any given occurrence will generate. In certain instances, we specifically insure and reinsure risks resulting from acts of terrorism. Even in cases where we attempt to exclude losses from terrorism and certain other similar risks from some coverages written by us, we may not be successful in doing so. Moreover, irrespective of the clarity and inclusiveness of policy language, there can be no assurance that a court or arbitration panel will not limit enforceability of policy language or otherwise issue a ruling adverse to us. Accordingly, while we believe our reinsurance programs, together with the coverage provided under TRIPRA, are sufficient to reasonably limit our net losses relating to potential future terrorist attacks, we can offer no assurance that our available capital will be adequate to cover losses when they materialize. To the extent that an act of terrorism is certified by the Secretary of the Treasury, our U.S. insurance operations may be covered under TRIPRA for up to 85% of its losses for 2008 and future years, in each case subject to a mandatory deductible of 20% for 2008 through 2014. If an act (or acts) of terrorism result in covered losses exceeding the \$100 billion annual limit, insurers with losses exceeding their deductibles will not be responsible for additional losses. It is not possible to completely eliminate our exposure to unforecasted or unpredictable events, and to the extent that losses from such risks occur, our financial condition and results of operations could be materially adversely affected.

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*The insurance and reinsurance industry is subject to regulatory and legislative initiatives or proposals from time to time which could adversely affect our business.*

From time to time, various regulatory and legislative changes have been proposed in the insurance and reinsurance industry. Among the proposals that have in the past been or are at present being considered are the possible introduction of federal regulation in addition to, or in lieu of, the current system of state regulation of insurers.

The extreme turmoil in the financial markets, combined with a new Congress and Presidential administration in the U.S. has increased the likelihood of changes in the way the financial services industry is regulated. It is possible that insurance regulation will be drawn into this process, and that federal regulatory initiatives in the insurance industry could emerge. The future impact of such initiatives, if any, on our results of operations or our financial condition cannot be determined at this time. There are also a variety of proposals being considered by various state legislatures. Finally, in addition, Solvency II, the EU new regulatory regime which will impose economic risk-based solvency requirements across all EU Member States, is expected to be implemented in 2013.

We are unable to predict whether any of these laws and regulations will be adopted, the form in which any such laws and regulations would be adopted, or the effect, if any, these developments would have on our operations and financial condition.

*Claims for catastrophic events could cause large losses and substantial volatility in our results of operations, and, as a result, the value of our securities, including our common shares and preferred shares, may fluctuate widely, and could have a material adverse effect on our financial position and results of operations.*

We have large aggregate exposures to natural disasters. Catastrophes can be caused by various events, including hurricanes, floods, windstorms, earthquakes, hailstorms, tornados, explosions, severe winter weather, fires and other natural disasters. Catastrophes can also cause losses in non-property business such as workers' compensation or general liability. In addition to the nature of the property business, we believe that economic and geographic trends affecting insured property, including inflation, property value appreciation and geographic concentration tend to generally increase the size of losses from catastrophic events over time. Our actual losses from catastrophic events which may occur may vary materially from our current estimates due to the inherent uncertainties in making such determinations resulting from several factors, including the potential inaccuracies and inadequacies in the data provided by clients, brokers and ceding companies, the modeling techniques and the application of such techniques, the contingent nature of business interruption exposures, the effects of any resultant demand surge on claims activity and attendant coverage issues.

The weather-related catastrophic events that occurred in the second half of 2005 caused significant industry losses, resulted in a substantial improvement in market conditions in property and certain marine lines of business and slowed declines in premium rates in other lines. However, during 2006 and 2007, price erosion occurred in many lines of business as a result of competitive pressures in the insurance market. We increased our writings in property and certain marine lines of business and these lines represented a larger proportion of our overall book of business in 2006, 2007 and 2008 compared to prior periods. We expect that our writings in these lines of business will continue to represent a significant proportion of our overall book of business in future periods and may represent a larger proportion of our overall book of business in future periods, which could increase the volatility of our results of operations.

In addition, over the past several years, changing weather patterns and climatic conditions, such as global warming, have added to the unpredictability and frequency of natural disasters in certain parts of the world and created additional uncertainty as to future trends and exposures. Claims for catastrophic events could expose us to large losses and cause substantial volatility in our results of operations, which

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could cause the value of our securities, including our common shares and preferred shares, to fluctuate widely.

*Underwriting claims and reserving for losses are based on probabilities and related modeling, which are subject to inherent uncertainties.*

Our success is dependent upon our ability to assess accurately the risks associated with the businesses that we insure and reinsure. We establish reserves for losses and loss adjustment expenses which represent estimates involving actuarial and statistical projections, at a given point in time, of our expectations of the ultimate settlement and administration costs of losses incurred. We utilize actuarial models as well as available historical insurance industry loss ratio experience and loss development patterns to assist in the establishment of loss reserves. Actual losses and loss adjustment expenses paid will deviate, perhaps substantially, from the reserve estimates reflected in our financial statements.

If our loss reserves are determined to be inadequate, we will be required to increase loss reserves at the time of such determination with a corresponding reduction in our net income in the period in which the deficiency becomes known. It is possible that claims in respect of events that have occurred could exceed our claim reserves and have a material adverse effect on our results of operations, in a particular period, or our financial condition in general. As a compounding factor, although most insurance contracts have policy limits, the nature of property and casualty insurance and reinsurance is such that losses can exceed policy limits for a variety of reasons and could significantly exceed the premiums received on the underlying policies, thereby further adversely affecting our financial condition.

As of December 31, 2008, our reserves for unpaid losses and loss adjustment expenses, net of unpaid losses and loss adjustment expenses recoverable, were approximately \$5.94 billion. Such reserves were established in accordance with applicable insurance laws and GAAP. Loss reserves are inherently subject to uncertainty. In establishing the reserves for losses and loss adjustment expenses, we have made various assumptions relating to the pricing of our reinsurance contracts and insurance policies and have also considered available historical industry experience and current industry conditions. Any estimates and assumptions made as part of the reserving process could prove to be inaccurate due to several factors, including the fact that relatively limited historical information has been reported to us through December 31, 2008.

*The failure of any of the loss limitation methods we employ could have a material adverse effect on our financial condition or results of operations.*

We have large aggregate exposures to natural and man-made catastrophic events. Catastrophes can be caused by various events, including, but not limited to, hurricanes, floods, windstorms, earthquakes, hailstorms, explosions, severe winter weather and fires. Catastrophes can also cause losses in non-property business such as workers' compensation or general liability. In addition to the nature of property business, we believe that economic and geographic trends affecting insured property, including inflation, property value appreciation and geographic concentration, tend to generally increase the size of losses from catastrophic events over time.

We have substantial exposure to unexpected, large losses resulting from future man-made catastrophic events, such as acts of war, acts of terrorism and political instability. These risks are inherently unpredictable. It is difficult to predict the timing of such events with statistical certainty or estimate the amount of loss any given occurrence will generate. It is not possible to completely eliminate our exposure to unforecasted or unpredictable events and, to the extent that losses from such risks occur, our financial condition and results of operations could be materially adversely affected. Therefore, claims for natural and man-made catastrophic events could expose us to large losses and cause substantial volatility in our results of operations, which could cause the value of our common shares to fluctuate widely. In certain instances, we specifically insure and reinsure risks resulting from

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terrorism. Even in cases where we attempt to exclude losses from terrorism and certain other similar risks from some coverages written by us, we may not be successful in doing so. Moreover, irrespective of the clarity and inclusiveness of policy language, there can be no assurance that a court or arbitration panel will limit enforceability of policy language or otherwise issue a ruling adverse to us.

We seek to limit our loss exposure by writing a number of our reinsurance contracts on an excess of loss basis, adhering to maximum limitations on reinsurance written in defined geographical zones, limiting program size for each client and prudent underwriting of each program written. In the case of proportional treaties, we may seek per occurrence limitations or loss ratio caps to limit the impact of losses from any one or series of events. In our insurance operations, we seek to limit our exposure through the purchase of reinsurance. We cannot be certain that any of these loss limitation methods will be effective. We also seek to limit our loss exposure by geographic diversification. Geographic zone limitations involve significant underwriting judgments, including the determination of the area of the zones and the inclusion of a particular policy within a particular zone's limits. There can be no assurance that various provisions of our policies, such as limitations or exclusions from coverage or choice of forum, will be enforceable in the manner we intend. Disputes relating to coverage and choice of legal forum may also arise. Underwriting is inherently a matter of judgment, involving important assumptions about matters that are inherently unpredictable and beyond our control, and for which historical experience and probability analysis may not provide sufficient guidance. One or more catastrophic or other events could result in claims that substantially exceed our expectations, which could have a material adverse effect on our financial condition or our results of operations, possibly to the extent of eliminating our shareholders' equity.

For our natural catastrophe exposed business, we seek to limit the amount of exposure we will assume from any one insured or reinsured and the amount of the exposure to catastrophe losses from a single event in any geographic zone. We monitor our exposure to catastrophic events, including earthquake and wind, and periodically reevaluate the estimated probable maximum pre-tax loss for such exposures. Our estimated probable maximum pre-tax loss is determined through the use of modeling techniques, but such estimate does not represent our total potential loss for such exposures. We seek to limit the probable maximum pre-tax loss to a specific level for severe catastrophic events. Currently, we generally seek to limit the probable maximum pre-tax loss to approximately 25% of total shareholders' equity for a severe catastrophic event in any geographic zone that could be expected to occur once in every 250 years, although we reserve the right to change this threshold at any time. There can be no assurances that we will not suffer pre-tax losses greater than 25% of our total shareholders' equity from one or more catastrophic events due to several factors, including the inherent uncertainties in estimating the frequency and severity of such events and the margin of error in making such determinations resulting from potential inaccuracies and inadequacies in the data provided by clients and brokers, the modeling techniques and the application of such techniques or as a result of a decision to change the percentage of shareholders' equity exposed to a single catastrophic event. In addition, depending on business opportunities and the mix of business that may comprise our insurance and reinsurance portfolio, we may seek to adjust our self-imposed limitations on probable maximum pre-tax loss for catastrophe exposed business.

*The risk associated with reinsurance underwriting could adversely affect us, and while reinsurance and retrocessional coverage will be used to limit our exposure to risks, the availability of such arrangements may be limited, and counterparty credit and other risks associated with our reinsurance arrangements may result in losses which could adversely affect our financial condition and results of operations.*

Like other reinsurers, our reinsurance group does not separately evaluate each of the individual risks assumed under reinsurance treaties. Therefore, we are largely dependent on the original underwriting decisions made by ceding companies. We are subject to the risk that the ceding companies may not have adequately evaluated the risks to be reinsured and that the premiums ceded may not adequately compensate us for the risks we assume.

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For the purposes of managing risk, we use reinsurance and also may use retrocessional arrangements. In the normal course of business, our insurance subsidiaries cede a substantial portion of their premiums through pro rata, excess of loss and facultative reinsurance agreements. Our reinsurance subsidiaries purchase a limited amount of retrocessional coverage as part of their aggregate risk management program. In addition, our 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 our reinsurance subsidiaries, and the ceding company. For 2008, ceded premiums written represented approximately 23.5% of gross premiums written, compared to 29.9% and 29.5%, respectively, for 2007 and 2006.

The availability and cost of reinsurance and retrocessional protection is subject to market conditions, which are beyond our control. As a result of such market conditions and other factors, we may not be able to successfully mitigate risk through reinsurance and retrocessional arrangements. Further, we are subject to credit risk with respect to our reinsurance and retrocessions because the ceding of risk to reinsurers and retrocessionaires does not relieve us of our liability to the clients or companies we insure or reinsure. Our losses for a given event or occurrence may increase if our reinsurers or retrocessionaires dispute or fail to meet their obligations to us or the reinsurance or retrocessional protections purchased by us are exhausted or are otherwise unavailable for any reason. Our failure to establish adequate reinsurance or retrocessional arrangements or the failure of our existing reinsurance or retrocessional arrangements to protect us from overly concentrated risk exposure could adversely affect our financial condition and results of operations. We monitor the financial condition of our reinsurers and attempt to place coverages only with carriers we view as substantial and financially sound. At December 31, 2008 and 2007, approximately 88.5% of our reinsurance recoverables on paid and unpaid losses (not including prepaid reinsurance premiums) of \$1.79 billion and \$1.74 billion, respectively, were due from carriers which had an A.M. Best rating of "A-" or better. At December 31, 2008 and 2007, the largest reinsurance recoverables from any one carrier were less than 7.3% and 5.2%, respectively, of our total shareholders' equity. In connection with our acquisition of Arch Specialty in February 2002, the seller, Sentry, agreed to reinsure and guarantee all liabilities arising out of Arch Specialty's business prior to the closing of the acquisition. In addition to the guarantee provided by Sentry, substantially all of the \$39.7 million recoverable from Sentry is still subject to the original reinsurance agreements inuring to Arch Specialty and, to the extent Sentry fails to comply with its payment obligations to us, we may obtain reimbursement from the third party reinsurers under such agreements.

*Our reliance on brokers subjects us to their credit risk.*

In accordance with industry practice, we generally pay amounts owed on claims under our insurance and reinsurance contracts to brokers, and these brokers, in turn, pay these amounts to the clients that have purchased insurance or reinsurance from us. In some jurisdictions, if a broker fails to make such payment, we may remain liable to the insured or ceding insurer for the deficiency. Likewise, in certain jurisdictions, when the insured or ceding company pays the premiums for these contracts to brokers for payment to us, these premiums are considered to have been paid and the insured or ceding company will no longer be liable to us for those amounts, whether or not we have actually received the premiums from the broker. Consequently, we assume a degree of credit risk associated with our brokers. To date, we have not experienced any losses related to this credit risk.

*We cannot predict the effect that the investigation currently being conducted by the New York Attorney General and others will have on the industry or our business, and the effects of emerging claims and coverage issues and certain proposed legislation are uncertain.*

The New York Attorney General, various state insurance regulatory authorities and others continue to prosecute actions arising out of contingent commission payments to brokers (and the



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disclosures relating to such payments), "bid-rigging," "steering," and other practices in the insurance industry. We cannot predict the effect that these investigations, and any changes in insurance practice, including future legislation or regulations that may become applicable to us, will have on the insurance industry, the regulatory framework or our business.

The effects of emerging claims and coverage issues are uncertain. The insurance industry is also affected by political, judicial and legal developments which have in the past resulted in new or expanded theories of liability. These or other changes could impose new financial obligations on us by extending coverage beyond our underwriting intent or otherwise require us to make unplanned modifications to the products and services that we provide, or cause the delay or cancellation of products and services that we provide. In some instances, these changes may not become apparent until some time after we have issued insurance or reinsurance contracts that are affected by the changes. As a result, the full extent of liability under our insurance or reinsurance contracts may not be known for many years after a contract is issued. The effects of unforeseen developments or substantial government intervention could adversely impact our ability to achieve our goals.

**Risks Relating to Our Company**

*Our success will depend on our ability to maintain and enhance effective operating procedures and internal controls.*

We continue to enhance our operating procedures and internal controls (including the timely and successful implementation of our information technology initiatives, which include the implementation of improved computerized systems and programs to replace and support manual systems, and including controls over financial reporting) to effectively support our business and our regulatory and reporting requirements. Our management does not expect that our disclosure controls or our internal controls will prevent all errors and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. As a result of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within the company have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons or by collusion of two or more people. The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions; over time, controls may become inadequate because of changes in conditions, or the degree of compliance with the policies or procedures may deteriorate. As a result of the inherent limitations in a cost-effective control system, misstatement due to error or fraud may occur and not be detected. Accordingly, our disclosure controls and procedures are designed to provide reasonable, not absolute, assurance that the disclosure controls and procedures are met.

*A downgrade in our ratings or our inability to obtain a rating for our operating insurance and reinsurance subsidiaries may adversely affect our relationships with clients and brokers and negatively impact sales of our products.*

Our operating insurance and reinsurance subsidiaries are rated by ratings agencies. Brokers negotiate contracts of reinsurance between a primary insurer and reinsurer, on behalf of the primary insurer. Third-party rating agencies, such as A.M. Best, assess and rate the financial strength of insurers and reinsurers based upon criteria established by the rating agencies, which criteria are subject to change. Ratings are an important factor in establishing the competitive position of insurance and reinsurance companies. Insurers and intermediaries use these ratings as one measure by which to assess

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the financial strength and quality of insurers and reinsurers. These ratings are often an important factor in the decision by an insured or intermediary of whether to place business with a particular insurance or reinsurance provider. Our financial strength ratings are subject to periodic review as rating agencies evaluate us to confirm that we continue to meet their criteria for ratings assigned to us by them. Such ratings may be revised downward or revoked at the sole discretion of such ratings agencies in response to a variety of factors, including a minimum capital adequacy ratio, management, earnings, capitalization and risk profile. We can offer no assurances that our ratings will remain at their current levels. A ratings downgrade or the potential for such a downgrade, or failure to obtain a necessary rating, could adversely affect both our relationships with agents, brokers, wholesalers and other distributors of our existing products and services and new sales of our products and services. In addition, under certain of the reinsurance agreements assumed by our reinsurance operations, upon the occurrence of a ratings downgrade or other specified triggering event with respect to our reinsurance operations, such as a reduction in surplus by specified amounts during specified periods, our ceding company clients may be provided with certain rights, including, among other things, the right to terminate the subject reinsurance agreement and/or to require that our reinsurance operations post additional collateral. Any ratings downgrade or failure to obtain a necessary rating could adversely affect our ability to compete in our markets, could cause our premiums and earnings to decrease and have a material adverse impact on our financial condition and results of operations. In addition, a downgrade in ratings of certain of our operating subsidiaries would in certain cases constitute an event of default under our credit facilities. See "Management's Discussion and Analysis of Financial Condition and Results of Operations Contractual Obligations and Commercial Commitments Letter of Credit and Revolving Credit Facilities" for a discussion of our credit facilities.

*The loss of our key employees or our inability to retain them could negatively impact our business.*

Our success has been, and will continue to be, dependent on our ability to retain the services of our existing key executive officers and to attract and retain additional qualified personnel in the future. The pool of talent from which we actively recruit is limited. Although, to date, we have not experienced difficulties in attracting and retaining key personnel, the inability to attract and retain qualified personnel when available and the loss of services of key personnel could have a material adverse effect on our financial condition and results of operations. In addition, our underwriting staff is critical to our success in the production of business. While we do not consider any of our key executive officers or underwriters to be irreplaceable, the loss of the services of our key executive officers or underwriters or the inability to hire and retain other highly qualified personnel in the future could delay or prevent us from fully implementing our business strategy which could affect our financial performance. We are not aware of any intentions of any of our key personnel that would cause them no longer to provide their professional services to us in the near future.

*The preparation of our financial statements requires us to make many estimates and judgments, which are even more difficult than those made in a mature company since relatively limited historical information has been reported to us through December 31, 2008.*

The preparation of consolidated financial statements requires us to make many estimates and judgments that affect the reported amounts of assets, liabilities (including reserves), revenues and expenses, and related disclosures of contingent liabilities. On an ongoing basis, we evaluate our estimates, including those related to revenue recognition, insurance and other reserves, reinsurance recoverables, investment valuations, intangible assets, bad debts, income taxes, contingencies and litigation. We base our estimates on historical experience, where possible, and on various other assumptions that we believe to be reasonable under the circumstances, which form the basis for our judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Estimates and judgments for a relatively new insurance and reinsurance company, like our company, are even more difficult to make than those made in a mature company since relatively limited historical information has been reported to us through December 31, 2008. Instead, our current

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loss reserves are primarily based on estimates involving actuarial and statistical projections of our expectations of the ultimate settlement and administration costs of claims incurred but not yet reported. We utilize actuarial models as well as historical insurance industry loss development patterns to establish our initial loss reserves. Over time, other common reserving methodologies have begun to be employed. Actual claims and claim expenses paid may deviate, perhaps substantially, from the reserve estimates reflected in our financial statements.

*The Warburg Pincus funds own approximately 6.6% of our voting shares, and they have the right to have a director on our board; their interests may materially differ from the interests of the holders of our other securities.*

The Warburg Pincus funds own approximately 6.6% of our outstanding voting shares as of December 31, 2008. These shareholders are not subject to the voting limitation contained in our bye-laws. We have agreed (until 2011) not to declare any dividend or make any other distribution on our common shares and not to repurchase any common shares until we have repurchased from the Warburg Pincus funds, pro rata, on the basis of the amount of their investment in us at the time of such repurchase, common shares (which were issued pursuant to the conversion of all of the outstanding preference shares in the 2005 fourth quarter) having an aggregate value of \$250.0 million, at a per share price acceptable to them. No such shares have yet been repurchased from the Warburg Pincus funds. In connection with the share repurchase program, the Warburg Pincus funds waived their rights relating to share repurchases under its shareholders agreement with ACGL for all repurchases of common shares by ACGL under the share repurchase program in open market transactions and certain privately negotiated transactions.

In addition, the Warburg Pincus funds are entitled (until 2011) to nominate a prescribed number of directors based on the respective retained percentages of their equity securities purchased in November 2001. As long as the Warburg Pincus funds retain at least 10% of their original investment, they will be entitled to nominate one director. By reason of their ownership and the shareholders agreement, the Warburg Pincus funds are able to strongly influence or effectively control certain actions to be taken by us or our shareholders. The interests of these shareholders may differ materially from the interests of the holders of our other securities, and these shareholders could take actions or make decisions that are not in the interests of the holders of our other securities generally.

*The price of our common shares may be volatile.*

There has been significant volatility in the market for equity securities. During 2008 and 2007, the price of our common shares fluctuated from a low of \$54.80 to a high of \$80.47 and from a low of \$63.25 to a high of \$77.30, respectively. On February 17, 2009, our common shares closed at a price of \$60.63. The price of our common shares may not remain at or exceed current levels. The following factors may have an adverse impact on the market price of our common stock:

actual or anticipated variations in our quarterly results of operations, including as a result of catastrophes or our investment performance;

our share repurchase program;

changes in market valuation of companies in the insurance and reinsurance industry;

changes in expectations of future financial performance or changes in estimates of securities analysts;

fluctuations in stock market process and volumes;

issuances or sales of common shares or other securities in the future;

the addition or departure of key personnel; and



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announcements by us or our competitors of acquisitions, investments or strategic alliances.

Stock markets in the United States are experiencing particularly volatile price and volume fluctuations. Such fluctuations, as well as general political conditions, the current poor economic conditions and recession or interest rate or currency rate fluctuations, could adversely affect the market price of our stock.

*Continued adverse developments in the financial markets could have a material adverse effect on our results of operations, financial position and our businesses, and may also limit our access to capital; our policyholders, reinsurers and retrocessionaires may also be affected by such developments, which could adversely affect their ability to meet their obligations to us.*

Continued adverse developments in the financial markets, such as disruptions, uncertainty or volatility in the capital and credit markets, may result in realized and unrealized capital losses that could have a material adverse effect on our results of operations, financial position and our businesses, and may also limit our access to capital required to operate our business. The recent severe disruptions in the public debt and equity markets, including among other things, widening of credit spreads, lack of liquidity and bankruptcies, have resulted in significant realized and unrealized losses in our investment portfolio during the third and fourth quarters of 2008. Depending on market conditions, we could incur additional realized and unrealized losses on our investment portfolio in future periods, which could have a material adverse effect on our results of operations, financial condition and business. Current economic conditions could also have a material impact on the frequency and severity of claims and therefore could negatively impact our underwriting returns. In addition, our policyholders, reinsurers and retrocessionaires may be affected by such developments in the financial markets, which could adversely affect their ability to meet their obligations to us. The volatility in the financial markets could continue to significantly affect our investment returns, reported results and shareholders equity.

*Our business is dependent upon insurance and reinsurance brokers, and the loss of important broker relationships could materially adversely affect our ability to market our products and services.*

We market our insurance and reinsurance products primarily through brokers. We derive a significant portion of our business from a limited number of brokers. During 2008, approximately 17.0% and 15.3% of our gross premiums written were generated from or placed by Marsh & McLennan Companies and its subsidiaries and AON Corporation and its subsidiaries, respectively. No other broker and no one insured or reinsured accounted for more than 10% of gross premiums written for 2008. Some of our competitors have had longer term relationships with the brokers we use than we have, and the brokers may promote products offered by companies that may offer a larger variety of products than we do. Loss of all or a substantial portion of the business provided by these brokers could have a material adverse effect on us.

*We could be materially adversely affected to the extent that managing general agents, general agents and other producers in our program business exceed their underwriting authorities or otherwise breach obligations owed to us.*

In program business conducted by our insurance group, following our underwriting, financial, claims and information technology due diligence reviews, we authorize managing general agents, general agents and other producers to write business on our behalf within underwriting authorities prescribed by us. Once a program incept, we must rely on the underwriting controls of these agents to write business within the underwriting authorities provided by us. Although we monitor our programs on an ongoing basis, our monitoring efforts may not be adequate or our agents may exceed their underwriting authorities or otherwise breach obligations owed to us. We have experienced breaches by certain of our agents, all of which have been resolved favorably for us. To the extent that our agents exceed their authorities or otherwise breach obligations owed to us in the future, our financial condition and results of operations could be materially adversely affected.

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*Our investment performance may affect our financial results and ability to conduct business.*

Our operating results depend in part on the performance of our investment portfolio. A significant portion of our cash and invested assets consists of fixed maturities (87.6% as of December 31, 2008). Although our current investment guidelines and approach stress preservation of capital, market liquidity and diversification of risk, our investments are subject to market-wide risks and fluctuations. In addition, we are subject to risks inherent in particular securities or types of securities, as well as sector concentrations. We may not be able to realize our investment objectives, which could reduce our net income significantly. In the event that we are unsuccessful in correlating our investment portfolio with our expected insurance and reinsurance liabilities, we may be forced to liquidate our investments at times and prices that are not optimal, which could have a material adverse effect on our financial results and ability to conduct our business.

*We may be adversely affected by changes in economic conditions, including interest rate changes, as well as legislative changes.*

Our operating results are affected, in part, by the performance of our investment portfolio. Our investment portfolio contains fixed and floating rate securities and instruments, such as bonds, which may be adversely affected by changes in interest rates. Changes in interest rates could also have an adverse effect on our investment income and results of operations. For example, if interest rates increase, the value of our investment portfolio may decline. Although lower interest rates may increase the value of our portfolio, our investment income might suffer from the lower rates at which new cash could be deployed.

In addition, our investment portfolio includes residential mortgage-backed securities ("MBS"). As of December 31, 2008, MBS constituted approximately 15.8% of our cash and invested assets. As with other fixed income investments, the market value of these securities fluctuates depending on market and other general economic conditions and the interest rate environment. Changes in interest rates can expose us to changes in the prepayment rate on these investments. In periods of declining interest rates, mortgage prepayments generally increase and MBS are prepaid more quickly, requiring us to reinvest the proceeds at the then current market rates. Conversely, in periods of rising rates, mortgage prepayments generally fall, preventing us from taking full advantage of the higher level of rates. However, current economic conditions may curtail prepayment activity as refinancing becomes more difficult, thus limiting prepayments on MBS.

Interest rates are highly sensitive to many factors, including the fiscal and monetary policies of the U.S. and other major economies, inflation, economic and political conditions and other factors beyond our control. Although we attempt to take measures to manage the risks of investing in changing interest rate environments, we may not be able to mitigate interest rate sensitivity effectively. Despite our mitigation efforts, an increase in interest rates could have a material adverse effect on our book value.

In recent months, delinquencies and losses with respect to residential mortgage loans generally have increased and may continue to increase, particularly in the subprime sector. In addition, in recent months residential property values in many states have declined or remained stable, after extended periods during which those values appreciated. A continued decline or an extended flattening in those values may result in additional increases in delinquencies and losses on residential mortgage loans generally, especially with respect to second homes and investment properties, and with respect to any residential mortgage loans where the aggregate loan amounts (including any subordinate loans) are close to or greater than the related property values. These developments may have a significant adverse effect on the prices of loans and securities, including those in our investment portfolio. The situation continues to have wide ranging consequences, including downward pressure on economic growth and the potential for increased insurance and reinsurance exposures, which could have an adverse impact on our results of operations, financial condition, business and operations.

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There is currently proposed federal legislation being considered by the U.S. Congress which would provide legislative relief for homeowners, including an amendment of bankruptcy laws to permit the modification of mortgage loans in bankruptcy proceedings. These loan modification programs, as well as future legislative or regulatory actions, including amendments to the bankruptcy laws, that result in the modification of outstanding mortgage loans, may adversely affect the value of, and the returns on, certain mortgage-backed securities we own.

*The determination of the amount of allowances and impairments taken on our investments is highly subjective and could materially impact our results of operations or financial position.*

The determination of the amount of allowances and impairments vary by investment type and is based upon our periodic evaluation and assessment of known and inherent risks associated with the respective asset class. Such evaluations and assessments are revised as conditions change and new information becomes available. On a quarterly basis, we evaluate whether the market value of any of our investments are other-than-temporarily impaired. Our process for reviewing invested assets for impairments during any quarter includes the following: (i) identification and evaluation of investments that have possible indications of other-than-temporary impairment, which includes an analysis of investments with gross unrealized investment losses in excess of certain criteria (including the length of time and significance of the decline); (ii) an analysis of our intent and ability to hold the investment for a sufficient period of time for the value to recover; (iii) consideration of evidential matter, including an evaluation of the potential for the loss of principal; (iv) a review of the investee's current financial condition, liquidity, near-term recovery prospects and other factors; and (v) determination of the status of each analyzed investment as other-than-temporary or not.

Where our analysis of the above factors results in the conclusion that declines in market values are other-than-temporary, the cost basis of the securities is written down to market value and the write-down is reflected as a realized loss. We recognize a realized loss when impairment is deemed to be other-than-temporary even if a decision to sell an invested asset has not been made. We may, from time to time, sell invested assets subsequent to the balance sheet date that were considered temporarily impaired at the balance sheet date. Such sales are generally due to events occurring subsequent to the balance sheet date that result in a change in our intent or ability to hold an invested asset. The types of events that may result in a sale include significant changes in the economic facts and circumstances related to the invested asset, significant unforeseen changes in our liquidity needs, or changes in tax laws or the regulatory environment.

There can be no assurance that our management has accurately assessed the level of impairments taken and allowances reflected in our financial statements. Furthermore, additional impairments may need to be taken or allowances provided for in the future. Historical trends may not be indicative of future impairments or allowances.

*We may require additional capital in the future, which may not be available or only available on unfavorable terms.*

We monitor our capital adequacy on a regular basis. The capital requirements of our business depend on many factors, including our ability to write new business successfully and to establish premium rates and reserves at levels sufficient to cover losses. Our ability to underwrite is largely dependent upon the quality of our claims paying and financial strength ratings as evaluated by independent rating agencies. To the extent that our existing capital is insufficient to fund our future operating requirements and/or cover claim losses, we may need to raise additional funds through financings or limit our growth. Any equity or debt financing, if available at all, may be on terms that are unfavorable to us. In the case of equity financings, dilution to our shareholders could result, and, in any case, such securities may have rights, preferences and privileges that are senior to those of our outstanding securities. Disruptions, uncertainty or volatility in the capital and credit markets may also limit our access to capital required to operate our business. Such market conditions may limit our

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ability to access the capital necessary to develop our business and replace, in a timely manner, our letters of credit facilities upon maturity. As such, we may be forced to delay raising capital or bear an unattractive cost of capital which could decrease our profitability and significantly reduce our financial flexibility. If we are not able to obtain adequate capital, our business, results of operations and financial condition could be adversely affected. See "Management's Discussion and Analysis of Financial Condition and Results of Operations Financial Condition, Liquidity and Capital Resources Liquidity and Capital Resources."

*We sold our prior reinsurance operations in May 2000 and may have liability to the purchaser and continuing liability from those reinsurance operations if the purchaser should fail to make payments on the reinsurance liabilities it assumed.*

On May 5, 2000, we sold our prior reinsurance operations to WTM Re. 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 our balance sheet. In addition, in connection with that asset sale, we made extensive representations and warranties about us and our reinsurance operations, some of which survived the closing of the asset sale. Breach of these representations and warranties could result in liability for us. In the event that WTM Re refuses or is unable to make payment for reserved losses transferred to it by us in the May 2000 sale and the notice given to reinsureds is found not to be an effective release by such reinsureds, we would be liable for such claims. A.M. Best has assigned an "A-" (Excellent) financial strength rating to WTM Re. WTM Re reported policyholders' surplus of \$927 million at December 31, 2007.

*We sold our non-standard automobile insurance operations and merchant banking operations in 2004 and may have liability to the purchasers.*

In 2004, we sold our non-standard automobile insurance operations and merchant banking operations to third party purchasers. In connection with such sales, we made representations and warranties about us and our transferred businesses, some of which survived the closing of such sales. Breach of these representations and warranties could result in liability to us.

*Any future acquisitions, growth of our operations through the addition of new lines of insurance or reinsurance business through our existing subsidiaries or through the formation of new subsidiaries, expansion into new geographic regions and/or joint ventures or partnerships may expose us to operational risks.*

We may in the future make strategic acquisitions either of other companies or selected blocks of business, expand our business lines or enter into joint ventures. Any future acquisitions may expose us to operational challenges and risks, including:

integrating financial and operational reporting systems;

establishing satisfactory budgetary and other financial controls;

funding increased capital needs and overhead expenses;

obtaining management personnel required for expanded operations;

funding cash flow shortages that may occur if anticipated sales and revenues are not realized or are delayed, whether by general economic or market conditions or unforeseen internal difficulties;

the value of assets acquired may be lower than expected or may diminish due to credit defaults or changes in interest rates and liabilities assumed may be greater than expected;



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the assets and liabilities we may acquire may be subject to foreign currency exchange rate fluctuation; and

financial exposures in the event that the sellers of the entities we acquire are unable or unwilling to meet their indemnification, reinsurance and other obligations to us.

Our failure to manage successfully these operational challenges and risks may impact our results of operations.

*Some of the provisions of our bye-laws and our shareholders agreement may have the effect of hindering, delaying or preventing third party takeovers or changes in management initiated by shareholders. These provisions may also prevent our shareholders from receiving premium prices for their shares in an unsolicited takeover.*

Some provisions of our bye-laws could have the effect of discouraging unsolicited takeover bids from third parties or changes in management initiated by shareholders. These provisions may encourage companies interested in acquiring us to negotiate in advance with our board of directors, since the board has the authority to overrule the operation of several of the limitations.

Among other things, our bye-laws provide:

for a classified board of directors, in which the directors of the class elected at each annual general meeting holds office for a term of three years, with the term of each class expiring at successive annual general meetings of shareholders;

that the number of directors is determined by the board from time to time by a vote of the majority of our board;

that directors may only be removed for cause, and cause removal shall be deemed to exist only if the director whose removal is proposed has been convicted of a felony or been found by a court to be liable for gross negligence or misconduct in the performance of his or her duties;

that our board has the right to fill vacancies, including vacancies created by an expansion of the board; and

for limitations on shareholders' right to call special general meetings and to raise proposals or nominate directors at general meetings.

Our bye-laws provide that certain provisions which may have anti-takeover effects may be repealed or altered only with prior board approval and upon the affirmative vote of holders of shares representing at least 65% of the total voting power of our shares entitled generally to vote at an election of directors.

The bye-laws also contain a provision limiting the rights of any U.S. person (as defined in section 7701(a)(30) of the Internal Revenue Code of 1986, as amended (the "Code")) that owns shares of ACGL, directly, indirectly or constructively (within the meaning of section 958 of the Code), representing more than 9.9% of the voting power of all shares entitled to vote generally at an election of directors. The votes conferred by such shares of such U.S. person will be reduced by whatever amount is necessary so that after any such reduction the votes conferred by the shares of such person will constitute 9.9% of the total voting power of all shares entitled to vote generally at an election of directors. Notwithstanding this provision, the board may make such final adjustments to the aggregate number of votes conferred by the shares of any U.S. person that the board considers fair and reasonable in all circumstances to ensure that such votes represent 9.9% of the aggregate voting power of the votes conferred by all shares of ACGL entitled to vote generally at an election of directors. ACGL will assume that all shareholders (other than the Warburg Pincus funds) are U.S. persons unless we receive assurance satisfactory to us that they are not U.S. persons.

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Moreover, most states, including states in which our subsidiaries are domiciled, have laws and regulations that require regulatory approval of a change in control of an insurer or an insurer's holding company. Where such laws apply to us and our subsidiaries, there can be no effective change in our control unless the person seeking to acquire control has filed a statement with the regulators and has obtained prior approval for the proposed change from such regulators. The usual measure for a presumptive change in control pursuant to these laws is the acquisition of 10% or more of the voting power of the insurance company or its parent, although this presumption is rebuttable. Consequently, a person may not acquire 10% or more of our common shares without the prior approval of insurance regulators in the state in which our subsidiaries are domiciled.

The bye-laws also provide that the affirmative vote of at least 66<sup>2</sup>/<sub>3</sub>% of the outstanding voting power of our shares (excluding shares owned by any person (and such person's affiliates and associates) that is the owner of 15% or more (a "15% Holder") of our outstanding voting shares) shall be required (the "extraordinary vote") for various corporate actions, including:

merger or consolidation of the Company into a 15% Holder;

sale of any or all of our assets to a 15% Holder;

the issuance of voting securities to a 15% Holder; or

amendment of these provisions;

*provided, however*, the extraordinary vote will not apply to any transaction approved by the board.

The provisions described above may have the effect of making more difficult or discouraging unsolicited takeover bids from third parties. To the extent that these effects occur, shareholders could be deprived of opportunities to realize takeover premiums for their shares and the market price of their shares could be depressed. In addition, these provisions could also result in the entrenchment of incumbent management.

*Our operating insurance and reinsurance subsidiaries are subject to regulation in various jurisdictions, and material changes in the regulation of their operations could adversely affect our results of operations.*

Our insurance and reinsurance subsidiaries are subject to government regulation in each of the jurisdictions in which they are licensed or authorized to do business. Governmental agencies have broad administrative power to regulate many aspects of the insurance business, which may include trade and claim practices, accounting methods, premium rates, marketing practices, claims practices, advertising, policy forms, and capital adequacy. These agencies are concerned primarily with the protection of policyholders rather than shareholders. Moreover, insurance laws and regulations, among other things:

establish solvency requirements, including minimum reserves and capital and surplus requirements;

limit the amount of dividends, tax distributions, intercompany loans and other payments our insurance subsidiaries can make without prior regulatory approval;

impose restrictions on the amount and type of investments we may hold;

require assessments through guaranty funds to pay claims of insolvent insurance companies; and

require participation in state-assigned risk plans which may take the form of reinsuring a portion of a pool of policies or the direct issuance of policies to insureds.

## Edgar Filing: ARCH CAPITAL GROUP LTD. - Form 10-K

The National Association of Insurance Commissioners ("NAIC") continuously examines existing laws and regulations in the United States. We cannot predict the effect that any NAIC recommendations or proposed or future legislation or rule making in the United States or elsewhere may have on our financial condition or operations.

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Our Bermuda insurance and reinsurance subsidiary, Arch Re Bermuda, conducts its business from its offices in Bermuda and is not licensed or admitted to do business in any jurisdiction except Bermuda. We do not believe that Arch Re Bermuda is subject to the insurance laws of any state in the United States; however, recent scrutiny of the insurance and reinsurance industry in the U.S. and other countries could subject Arch Re Bermuda to additional regulation. Our U.S. reinsurance subsidiary, Arch Re U.S., and our U.S. insurance subsidiaries, Arch Insurance, Arch Specialty, Arch E&S and Arch Indemnity, write reinsurance and insurance in the U.S. These subsidiaries are subject to extensive regulation under state statutes which delegate regulatory, supervisory and administrative powers to state insurance commissioners. Such regulation generally is designed to protect policyholders rather than investors. In addition, the Canadian branch of Arch Insurance writes insurance in Canada and is subject to federal, as well as provincial and territorial, regulation in Canada.

Arch Insurance Europe, our European subsidiary conducts its business from its offices in London and branch offices in, Italy, Spain, Germany, Denmark and Sweden. It is subject to the insurance regulations of the U.K. Arch Re Europe, our reinsurance subsidiary in Ireland, conducts its business from its office in Ireland and branches in Switzerland and Denmark. It is subject to the reinsurance regulations of Ireland. Both Arch Insurance Europe and Arch Re Europe are also subject to the EU regulations and regulations of the respective Member States where they have established branches or in which they conduct business, but with respect to the conduct of their business in such Member State, but each company remains subject only to the financial and operational supervision by the FSA, in the case of Arch Insurance Europe, and IFSRA, in the case of Arch Re Europe. Arch Insurance Europe and Arch Re Europe have the freedom to provide their respective insurance and reinsurance services anywhere in the EEA subject to compliance with certain rules governing such provision, including notification to the FSA and IFSRA, respectively. Arch Insurance Europe is also approved as an excess and surplus lines insurer in 16 states in the U.S.

Our U.S., Bermuda, U.K. and Ireland subsidiaries and the Canadian branch of Arch Insurance are required to maintain minimum capital and surplus as mandated by their respective jurisdictions of incorporation and, in some cases, by the jurisdictions in which those subsidiaries write business. Arch Insurance Europe is required to maintain minimum capital surplus as mandated by the NAIC and certain states where it is approved as an excess and surplus lines insurer. All of our subsidiaries are currently in compliance with these capital and surplus requirements.

We periodically review our corporate structure so that we can optimally deploy our capital. Changes in that structure require regulatory approval. Delays or failure in obtaining any of these approvals could limit the amount of insurance that we can write in the U.S.

If ACGL or any of our subsidiaries were to become subject to the laws of a new jurisdiction in which such entity is not presently admitted, ACGL or such subsidiary may not be in compliance with the laws of the new jurisdiction. Any failure to comply with applicable laws could result in the imposition of significant restrictions on our ability to do business, and could also result in fines and other sanctions, any or all of which could adversely affect our financial condition and results of operations.

*If our Bermuda operating subsidiary becomes subject to insurance statutes and regulations in jurisdictions other than Bermuda or if there is a change in Bermuda law or regulations or the application of Bermuda law or regulations, there could be a significant and negative impact on our business.*

Arch Re Bermuda, our Bermuda insurance and reinsurance subsidiary, is a registered Bermuda Class 4 insurer. As such, it is subject to regulation and supervision in Bermuda. Bermuda insurance statutes and the regulations and policies of the BMA require Arch Re Bermuda to, among other things:

maintain a minimum level of capital and surplus;

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maintain an enhanced capital requirement, a solvency margin and a liquidity ratio;

restrict dividends and distributions;

obtain prior approval regarding the ownership and transfer of shares;

maintain a principal office and appoint and maintain a principal representative in Bermuda;

file an annual statutory financial return and capital and solvency return; and

allow for the performance of certain period examinations of Arch Re Bermuda and its financial condition.

These statutes and regulations may restrict our ability to write insurance and reinsurance policies, distribute funds and pursue our investment strategy.

We do not presently intend for Arch Re Bermuda to be admitted to do business in the U.S., U.K. or any jurisdiction other than Bermuda. However, we cannot assure you that insurance regulators in the U.S., U.K. or elsewhere will not review the activities of Arch Re Bermuda or its subsidiaries or agents and claim that Arch Re Bermuda is subject to such jurisdiction's licensing requirements.

Generally, Bermuda insurance statutes and regulations applicable to Arch Re Bermuda are less restrictive than those that would be applicable if they were governed by the laws of any states in the U.S. If in the future we become subject to any insurance laws of the U.S. or any state thereof or of any other jurisdiction, we cannot assure you that we would be in compliance with such laws or that complying with such laws would not have a significant and negative effect on our business.

The process of obtaining licenses is very time consuming and costly and Arch Re Bermuda may not be able to become licensed in jurisdictions other than Bermuda should we choose to do so. The modification of the conduct of our business that would result if we were required or chose to become licensed in certain jurisdictions could significantly and negatively affect our financial condition and results of operations. In addition, our inability to comply with insurance statutes and regulations could significantly and adversely affect our financial condition and results of operations by limiting our ability to conduct business as well as subject us to penalties and fines.

Because Arch Re Bermuda is a Bermuda company, it is subject to changes in Bermuda law and regulation that may have an adverse impact on our operations, including through the imposition of tax liability or increased regulatory supervision. In addition, Arch Re Bermuda will be exposed to any changes in the political environment in Bermuda, including, without limitation, changes as a result of the independence issues currently being discussed in Bermuda. The Bermuda insurance and reinsurance regulatory framework recently has become subject to increased scrutiny in many jurisdictions, including the U.K. While we cannot predict the future impact on our operations of changes in the laws and regulation to which we are or may become subject, any such changes could have a material adverse effect on our business, financial condition and results of operations.

*ACGL is a holding company and is dependent on dividends and other payments from its operating subsidiaries, which are subject to dividend restrictions, to make payments, including the payment of debt service obligations and operating expenses we may incur and any payments of dividends, redemption amounts or liquidation amounts with respect to our preferred shares and common shares.*

ACGL is a holding company whose assets primarily consist of the shares in our subsidiaries. Generally, ACGL depends on its available cash resources, liquid investments and dividends or other distributions from subsidiaries to make payments, including the payment of debt service obligations and operating expenses it may incur and any payments of dividends, redemption amounts or liquidation amounts with respect to our preferred shares and common shares. For 2008, 2007 and 2006, ACGL received dividends of \$527.1 million, \$602.1 million and \$22.1 million, respectively, from Arch Re

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Bermuda. Such amounts were used to fund the share repurchase program, pay interest on ACGL's senior notes and for other corporate expenses.

The ability of our regulated insurance and reinsurance subsidiaries to pay dividends or make distributions is dependent on their ability to meet applicable regulatory standards. Under Bermuda law, Arch Re Bermuda is required to maintain an enhanced capital requirement and a solvency margin. Arch Re Bermuda is prohibited from declaring or paying any dividends during any financial year if it is not in compliance with its enhanced capital requirement, solvency margin or minimum liquidity ratio. In addition, Arch Re Bermuda 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 Bermuda 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. At December 31, 2008, as determined under Bermuda law, Arch Re Bermuda had statutory capital of \$2.21 billion and statutory capital and surplus of \$3.36 billion. Such amounts include interests in U.S. insurance and reinsurance subsidiaries. Accordingly, Arch Re Bermuda can pay approximately \$834 million to ACGL during 2009 without providing an affidavit to the BMA, as discussed above.

In addition, the ability of our insurance and reinsurance subsidiaries to pay dividends to ACGL and to intermediate parent companies owned by ACGL could be constrained by our dependence on financial strength ratings from independent rating agencies. Our ratings from these agencies depend to a large extent on the capitalization levels of our insurance and reinsurance subsidiaries.

We believe that ACGL has sufficient cash resources and available dividend capacity to service its indebtedness and other current outstanding obligations.

*If our Bermuda reinsurance subsidiary is unable to provide collateral to ceding companies, its ability to conduct business could be significantly and negatively affected.*

Arch Re Bermuda is a registered Bermuda insurance company and is not licensed or admitted as an insurer in any jurisdiction in the United States. Because insurance regulations in the United States do not permit insurance companies to take credit for reinsurance obtained from unlicensed or non-admitted insurers on their statutory financial statements unless security is posted, Arch Re Bermuda's contracts generally require it to post a letter of credit or provide other security. Although, to date, Arch Re Bermuda has not experienced any difficulties in providing collateral when required, if we are unable to post security in the form of letters of credit or trust funds when required, the operations of Arch Re Bermuda could be significantly and negatively affected.

*We may become subject to taxes in Bermuda after March 28, 2016, which may have a material adverse effect on our results of operations.*

Under current Bermuda law, we are not subject to tax on income or capital gains. Furthermore, we have obtained from the Minister of Finance of Bermuda under the Exempted Undertakings Tax Protection Act, 1966, an assurance that, in the event that Bermuda enacts legislation imposing tax computed on profits, income, any capital asset, gain or appreciation, or any tax in the nature of estate duty or inheritance tax, then the imposition of the tax will not be applicable to us or our operations until March 28, 2016. We could be subject to taxes in Bermuda after that date. This assurance does not, however, 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.

*Foreign currency exchange rate fluctuation may adversely affect our financial results.*

We write business on a worldwide basis, and our results of operations may be affected by fluctuations in the value of currencies other than the U.S. Dollar. The primary foreign currencies in

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which we operate are the Euro, the British Pound Sterling and the Canadian Dollar. Changes in foreign currency exchange rates can reduce our revenues and increase our liabilities and costs. We may therefore suffer losses solely as a result of exchange rate fluctuations. In order to mitigate the impact of exchange rate fluctuations, we have invested and expect to continue to invest in securities denominated in currencies other than the U.S. Dollar. In addition, we may replicate investment positions in foreign currencies using derivative financial instruments. Net foreign exchange gains, recorded in the statement of income, for 2008 were \$96.6 million, compared to net foreign exchange losses for the year ended December 31, 2007 of \$44.0 million. We hold investments in foreign currencies which are intended to mitigate our exposure to foreign currency fluctuations in our net insurance liabilities. However, changes in the value of such investments due to foreign currency rate movements are reflected as a direct increase or decrease to shareholders' equity and are not included in the statement of income. We have chosen not to hedge the currency risk on the capital contributed to Arch Insurance Europe in May 2004, which is held in British Pounds Sterling. However, we intend to match Arch Insurance Europe's projected liabilities in foreign currencies with investments in the same currencies. There can be no assurances that such arrangements will mitigate the negative impact of exchange rate fluctuations, and we may suffer losses solely as a result of exchange rate fluctuations. From inception through December 31, 2008, and based on currency spot rates at December 31, 2008, Arch Re Bermuda has recorded net premiums written of approximately \$800 million from Euro-denominated contracts, \$590 million from British Pound Sterling-denominated contracts and \$210 million from Canadian Dollar-denominated contracts. In addition, Arch Insurance Europe writes business in British Pound Sterling and Euros, and the Canadian branch of Arch Insurance writes business in Canadian Dollars.

*Certain employees of our Bermuda operations are required to obtain work permits before engaging in a gainful occupation in Bermuda. Required work permits may not be granted or may not remain in effect.*

Under Bermuda law, only persons who are Bermudians, spouses of Bermudians, holders of a permanent resident's certificate or holders of a working resident's certificate ("exempted persons") may engage in gainful occupation in Bermuda without an appropriate governmental work permit. Our success may depend in part on the continued services of key employees in Bermuda. A work permit may be granted or renewed upon showing that, after proper public advertisement, no exempted person is available who meets the minimum standards reasonably required by the employer. The Bermuda government's policy places a six-year term limit on individuals with work permits, subject to certain exemptions for key employees. A work permit is issued with an expiry date (up to five years) and no assurances can be given that any work permit will be issued or, if issued, renewed upon the expiration of the relevant term. We consider our key officers in Bermuda to be Constantine Iordanou, our President and Chief Executive Officer (work permit expires November 12, 2009), Marc Grandisson, Chairman and Chief Executive Officer of Arch Worldwide Reinsurance Group (work permit expires May 12, 2010), John D. Vollaro, our Executive Vice President and Chief Financial Officer (work permit expires July 25, 2010) and Nicolas Papadopoulo, President and Chief Executive Officer of Arch Re Bermuda (work permit expires March 31, 2010). We also have other key positions in Bermuda held by persons who hold work permits subject to renewal. If work permits are not obtained or renewed for our principal employees, we could lose their services, which could materially affect our business.

*The enforcement of civil liabilities against us may be difficult.*

We are a Bermuda company and in the future some of our officers and directors may be residents of various jurisdictions outside the United States. All or a substantial portion of our assets and the assets of those persons may be located outside the United States. As a result, it may be difficult for you to effect service of process within the United States upon those persons or to enforce in United States courts judgments obtained against those persons.

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We have appointed National Registered Agents, Inc., New York, New York, as our agent for service of process with respect to actions based on offers and sales of securities made in the United States. We have been advised by our Bermuda counsel, Conyers Dill & Pearman, that the United States and Bermuda do not currently have a treaty providing for reciprocal recognition and enforcement of judgments of U.S. courts in civil and commercial matters and that a final judgment for the payment of money rendered by a court in the United States based on civil liability, whether or not predicated solely upon the U.S. federal securities laws, would, therefore, not be automatically enforceable in Bermuda. We also have been advised by Conyers Dill & Pearman that a final and conclusive judgment obtained in a court in the United States under which a sum of money is payable as compensatory damages (i.e., not being a sum claimed by a revenue authority for taxes or other charges of a similar nature by a governmental authority, or in respect of a fine or penalty or multiple or punitive damages) may be the subject of an action on a debt in the Supreme Court of Bermuda under the common law doctrine of obligation. Such an action should be successful upon proof that the sum of money is due and payable, and without having to prove the facts supporting the underlying judgment, as long as:

the court which gave the judgment had proper jurisdiction over the parties to such judgment;

such court did not contravene the rules of natural justice of Bermuda;

such judgment was not obtained by fraud;

the enforcement of the judgment would not be contrary to the public policy of Bermuda;

no new admissible evidence relevant to the action is submitted prior to the rendering of the judgment by the courts of Bermuda; and

there is due compliance with the correct procedures under Bermuda law.

A Bermuda court may impose civil liability on us or our directors or officers in a suit brought in the Supreme Court of Bermuda against us or such persons with respect to a violation of U.S. federal securities laws, provided that the facts surrounding such violation would constitute or give rise to a cause of action under Bermuda law.

**Risk Relating to our Preferred Shares**

*General market conditions and unpredictable factors could adversely affect market prices for our outstanding preferred shares.*

There can be no assurance about the market prices for any series of our preferred shares. Several factors, many of which are beyond our control, will influence the market value of such series of preferred shares. Factors that might influence the market value of any series of our preferred shares include, but are not limited to:

whether dividends have been declared and are likely to be declared on any series of our preferred shares from time to time;

our creditworthiness, financial condition, performance and prospects;

whether the ratings on any series of our preferred shares provided by any ratings agency have changed;

the market for similar securities; and



economic, financial, geopolitical, regulatory or judicial events that affect us and/or the insurance or financial markets generally.

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*Dividends on our preferred shares are non-cumulative.*

Dividends on our preferred shares are non-cumulative and payable only out of lawfully available funds of ACGL under Bermuda law. Consequently, if ACGL's board of directors (or a duly authorized committee of the board) does not authorize and declare a dividend for any dividend period with respect to any series of our preferred shares, holders of such preferred shares would not be entitled to receive any such dividend, and such unpaid dividend will not accrue and will never be payable. ACGL will have no obligation to pay dividends for a dividend period on or after the dividend payment date for such period if its board of directors (or a duly authorized committee of the board) has not declared such dividend before the related dividend payment date; if dividends on any series of our preferred shares are authorized and declared with respect to any subsequent dividend period, ACGL will be free to pay dividends on any other series of preferred shares and/or our common shares. In the past, we have not paid dividends on our common shares.

*Our preferred shares are equity and are subordinate to our existing and future indebtedness.*

Our preferred shares are equity interests and do not constitute indebtedness. As such, our preferred shares will rank junior to all of our indebtedness and other non-equity claims with respect to assets available to satisfy our claims, including in our liquidation. As of December 31, 2008, our total consolidated long-term debt was \$400.0 million. We may incur additional debt in the future. Our existing and future indebtedness may restrict payments of dividends on our preferred shares. Additionally, unlike indebtedness, where principal and interest would customarily be payable on specified due dates, in the case of preferred shares like our preferred shares, (1) dividends are payable only if declared by the board of directors of ACGL (or a duly authorized committee of the board) and (2) as described above under " Risks Relating to Our Company ACGL is a holding company and is dependent on dividends and other payments from its operating subsidiaries, which are subject to dividend restrictions, to make payments, including the payment of debt service obligations and operating expenses we may incur and any payments of dividends, redemption amounts or liquidation amounts with respect to our preferred shares and common shares," we are subject to certain regulatory and other constraints affecting our ability to pay dividends and make other payments.

*The voting rights of holders of our preferred shares are limited.*

Holders of our preferred shares have no voting rights with respect to matters that generally require the approval of voting shareholders. The limited voting rights of holders of our preferred shares include the right to vote as a class on certain fundamental matters that affect the preference or special rights of our preferred shares as set forth in the certificate of designations relating to each series of preferred shares. In addition, if dividends on any series of our preferred shares have not been declared or paid for the equivalent of six dividend payments, whether or not for consecutive dividend periods, holders of the outstanding preferred shares of any series will be entitled to vote for the election of two additional directors to our board of directors subject to the terms and to the limited extent as set forth in the certificate of designations relating to such series of preferred shares.

*There is no limitation on our issuance of securities that rank equally with or senior to our preferred shares.*

We may issue additional securities that rank equally with or senior to our preferred shares without limitation. The issuance of securities ranking equally with or senior to our preferred shares may reduce the amount available for dividends and the amount recoverable by holders of such series in the event of a liquidation, dissolution or winding-up of ACGL.

*A classification of any series of preferred shares by the NAIC may impact U.S. insurance companies that purchase such series.*

The NAIC, may from time to time, in its discretion, classify securities in insurers' portfolios as either debt, preferred equity or common equity instruments. The NAIC's written guidelines for

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classifying securities as debt, preferred equity or common equity include subjective factors that require the relevant NAIC examiner to exercise substantial judgment in making a classification. There is therefore a risk that any series of preferred shares may be classified by NAIC as common equity instead of preferred equity. The NAIC classification determines the amount of risk based capital ("RBC") charges incurred by insurance companies in connection with an investment in a security. Securities classified as common equity by the NAIC carry RBC charges that can be significantly higher than the RBC requirement for debt or preferred equity. Therefore, any classification of any series of preferred shares as common equity may adversely affect U.S. insurance companies that hold such series. In addition, a determination by the NAIC to classify such series as common equity may adversely impact the trading of such series in the secondary market.

**Risks Relating to Taxation**

*We and our non-U.S. subsidiaries may become subject to U.S. federal income taxation.*

ACGL and its non-U.S. subsidiaries intend to operate their business in a manner that will not cause them to be treated as engaged in a trade or business in the United States and, thus, 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 certain U.S. source investment income) on their income. However, because there is uncertainty as to the activities which constitute being engaged in a trade or business in the United States, there can be no assurances that the U.S. Internal Revenue Service will not contend successfully that ACGL or its non-U.S. subsidiaries are engaged in a trade or business in the United States. If ACGL or any of its non-U.S. subsidiaries were subject to U.S. income tax, our shareholders' equity and earnings could be adversely affected. Certain of our U.S. subsidiaries have been personal holding companies, but did not have "undistributed personal holding company income."

Congress has been considering legislation intended to eliminate certain perceived tax advantages of Bermuda and other non-U.S. insurance companies and U.S. insurance companies having Bermuda and other non-U.S. affiliates, including perceived tax benefits resulting principally from reinsurance between or among U.S. insurance companies and their Bermuda affiliates. Some U.S. insurance companies have also been lobbying Congress recently to pass such legislation. In this regard, the American Jobs Creation Act of 2004 (the "Jobs Act") permits the United States Internal Revenue Service ("IRS") to re-allocate, re-characterize or adjust items of income, deduction or certain other items related to a reinsurance agreement between related parties to reflect the proper source, character and amount for each item (in contrast to prior law, which only covered source and character). The Jobs Act also eliminated the tax benefits available to a U.S. company that, after March 4, 2003, changed its legal domicile to a non-U.S. jurisdiction, a transaction commonly known as an inversion. We changed our legal domicile from the U.S. to Bermuda, but were not affected by the anti-inversion rule because our change in domicile occurred in November 2000. The American Infrastructure Investment and Improvement Act of 2008 as passed by the Senate Finance Committee would make the Jobs Act anti-inversion rule applicable retroactively to inversions that occurred after March 20, 2002. Although this modification would not affect ACGL, no assurance can be given that the final bill will not make the Jobs Act anti-inversion rule applicable retroactively to inversions that occurred on an earlier date, in which case ACGL could be adversely affected. Another legislative proposal has been introduced that would treat certain "tax haven CFCs" as U.S. corporations for federal income tax purposes. The term "tax haven CFC" would include a Bermuda corporation that is a controlled foreign corporation, but would exclude corporations that engage in the active conduct of a trade or business in Bermuda. It is not clear how this bill would apply to ACGL, which conducts its insurance and reinsurance businesses through its subsidiaries. Further, it is not clear whether this bill was intended to apply to a publicly traded company such as ACGL. There is no assurance that this legislative proposal, if enacted, would not apply to ACGL or any of its non-U.S. subsidiaries. In addition, Congress has recently conducted hearings relating to the tax treatment of reinsurance between affiliates and is reported to be

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considering legislation that would adversely affect reinsurance between U.S. and non-U.S. affiliates. One such proposal would increase the excise tax rate on reinsurance premiums paid to affiliated non-U.S. reinsurers. A Senate Finance Committee staff discussion draft and other prior proposals would limit deductions for premiums ceded to affiliated non-U.S. reinsurers above certain levels. Enactment of some version of such legislation as well as other changes in U.S. tax laws, regulations and interpretations thereof to address these issues could adversely affect us.

*U.S. persons who hold our common shares or preferred shares may be subject to U.S. income taxation at ordinary income rates on our undistributed earnings and profits.*

We believe that we and our non-U.S. subsidiaries currently might be controlled foreign corporations ("CFCs"), although our bye-laws are designed to preclude a U.S. person (other than a U.S. person attributed shares owned by funds associated with the Warburg Pincus funds and Hellman & Friedman funds) from adverse tax consequences as a result of our CFC status. We do not believe that we are a passive foreign investment company. Since these determinations and beliefs are based upon legal and factual conclusions, no assurances can be given that the U.S. Internal Revenue Service or a court would concur with our conclusions. If they were not to so concur, U.S. persons who hold our common shares or preferred shares may suffer adverse tax consequences.

*Reduced tax rate for qualified dividend income received by individuals and other non-corporate holders may not be available in the future.*

Dividends received by individuals and other non-corporate United States persons on our common shares or preferred shares in taxable years beginning on or before December 31, 2010 may constitute qualified dividend income that is subject to U.S. federal income tax at the rate applicable for long-term capital gains, rather than the higher rates applicable to ordinary income, provided that certain holding period requirements and other conditions are met. For taxable years beginning after December 31, 2010, qualified dividend income will no longer be taxed at the rate applicable for long-term capital gains unless legislation is enacted providing otherwise. In addition, there has been proposed legislation before both Houses of Congress that would exclude shareholders of certain foreign corporations from this advantageous tax treatment. If such legislation were to become law, non-corporate U.S. shareholders would no longer qualify for the capital gains tax rate on the dividends paid by us.

*Our non-U.S. companies may be subject to U.K. tax that may have a material adverse effect on our results of operations.*

We intend to operate in such a manner so that none of our companies, other than Arch Insurance Europe and our other subsidiaries that are incorporated in the U.K. ("U.K. Group"), should be resident in the U.K. for tax purposes or have a permanent establishment in the U.K. Accordingly, we do not expect that any companies other than U.K. Group should be subject to U.K. taxation. However, since applicable law and regulations do not conclusively define the activities that constitute conducting business in the U.K. through a permanent establishment, the U.K. Inland Revenue might contend successfully that one or more of our companies, in addition to the U.K. Group, is conducting business in the U.K. through a permanent establishment in the U.K. and, therefore, subject to U.K. tax, which could have a material adverse effect on us.

**ITEM 1B. UNRESOLVED STAFF COMMENTS**

None.

**ITEM 2. PROPERTIES**

Our reinsurance group leases a total of approximately 9,100 square feet in Hamilton, Bermuda under a lease expiring in 2012, and approximately 19,200 square feet in Morristown, New Jersey under

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a lease expiring in 2011. Our property facultative reinsurance group leases approximately 14,450 square feet for its offices throughout the U.S. and in Toronto.

Our insurance group leases approximately 8,750 square feet in Hamilton, Bermuda for our Bermuda insurance operations. The principal U.S. office of our insurance group support operations (excluding underwriting units) was recently moved from New York City to Jersey City, New Jersey where we lease approximately 106,800 square feet. Such lease expires in 2024. We continue to lease approximately 50,000 square feet in New York City for the headquarters of the U.S. insurance group's underwriting product lines and Northeast regional underwriting operations. Our insurance group also leases a total of approximately 197,000 square feet for its other primary U.S. offices and its office in Canada.

Arch Insurance Europe leases approximately 15,770 square feet in London. Arch Re Denmark, a branch of Arch Insurance Europe and Arch Re Europe, leases approximately 3,650 square feet in Denmark, and Arch Re Europe leases less than 1,000 square feet in Dublin. ACGL leases approximately 1,500 square feet in Bermuda. In addition, Arch Capital Services Inc., a subsidiary of ACGL which provides certain financial, legal and other administrative support services for ACGL and its subsidiaries, leases approximately 16,730 square feet in White Plains, New York.

For 2008, 2007 and 2006, our rental expense, net of income from subleases, was approximately \$17.5 million, \$14.8 million and \$12.9 million, respectively. Our future minimum rental charges for the remaining terms of our existing leases, exclusive of escalation clauses and maintenance costs and net of rental income, will be approximately \$119.8 million. We believe that the above described office space is adequate for our needs. However, as we continue to develop our business, we may open additional office locations during 2009.

**ITEM 3. LEGAL PROCEEDINGS**

We, in common with the insurance industry in general, are subject to litigation and arbitration in the normal course of our business. As of December 31, 2008, we were not a party to any material litigation or arbitration other than as a part of the ordinary course of business in relation to claims and reinsurance recoverable matters, none of which is expected by management to have a significant adverse effect on our results of operations and financial condition and liquidity.

**ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS**

None.

Table of Contents**PART II****ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES****MARKET INFORMATION**

Our common shares are traded on the NASDAQ Stock Market under the symbol "ACGL." For the periods presented below, the high and low sales prices and closing prices for our common shares as reported on the NASDAQ Stock Market were as follows:

	Three Months Ended			
	December 31, 2008	September 30, 2008	June 30, 2008	March 31, 2008
High	\$ 75.31	\$ 80.47	\$ 73.22	\$ 73.00
Low	\$ 54.80	\$ 63.74	\$ 66.26	\$ 65.00
Close	\$ 70.10	\$ 73.03	\$ 66.32	\$ 68.67

	Three Months Ended			
	December 31, 2007	September 30, 2007	June 30, 2007	March 31, 2007
High	\$ 77.30	\$ 75.28	\$ 74.24	\$ 68.58
Low	\$ 66.38	\$ 63.25	\$ 68.04	\$ 63.58
Close	\$ 70.35	\$ 74.41	\$ 72.54	\$ 67.46

On February 17, 2009 the high and low sales prices and the closing price for our common shares as reported on the NASDAQ Stock Market were \$62.75, \$59.77 and \$60.63, respectively.

**HOLDERS**

As of February 13, 2009, and based on information provided to us by our transfer agent and proxy solicitor, there were 413 holders of record of our common shares and approximately 37,600 beneficial holders of our common shares.

**DIVIDENDS**

Any determination to pay dividends on ACGL's series A and series B non-cumulative preferred shares or common shares will be at the discretion of ACGL's board of directors (or a duly authorized committee of the board of directors) and will be dependent upon its results of operations, financial condition and other factors deemed relevant by ACGL's board of directors. As a holding company, ACGL will depend on future dividends and other permitted payments from its subsidiaries to pay dividends to its shareholders. ACGL's subsidiaries' ability to pay dividends, as well as its ability to pay dividends, is subject to regulatory, contractual, rating agency and other constraints. So long as any series A or series B non-cumulative preferred shares remain outstanding for any dividend period, unless the full dividends for the latest completed dividend period on all outstanding series A and series B non-cumulative preferred shares and parity shares have been declared and paid (or declared and a sum sufficient for the payment thereof has been set aside), (a) no dividend may be paid or declared on ACGL's common shares or any of its other securities ranking junior to the series A and series B non-cumulative preferred shares (other than a dividend payable solely in common shares or in such other junior securities) and (b) no common shares or other junior shares may be purchased, redeemed or otherwise acquired for consideration by ACGL, directly or indirectly (other than (i) as a result of a reclassification of junior shares for or into other junior shares, or the exchange or conversion of one junior share for or into another junior share, (ii) through the use of the proceeds of a substantially contemporaneous sale of junior shares and (iii) as permitted by the bye-laws of ACGL in effect on the date of issuance of the series A and series B non-cumulative preferred shares).

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In addition, pursuant to a shareholders agreement, ACGL has agreed (until 2011) not to declare any dividend or make any other distribution on its common shares, and not to repurchase any common shares, until it has repurchased from the Warburg Pincus funds, pro rata, on the basis of the amount of their investment in us at the time of such repurchase, common shares (which were issued pursuant to the conversion of all outstanding preference shares in the 2005 fourth quarter) having an aggregate value of \$250.0 million, at a per share price acceptable to them.

**ISSUER PURCHASES OF EQUITY SECURITIES**

The following table summarizes our purchases of our common shares for the 2008 fourth quarter:

		Issuer Purchases of Equity Securities		Approximate Dollar Value of Shares that May Yet be Purchased Under the Plan or Programs(2)
Period		Total Number of Shares Purchased(1)	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs
10/1/2008	10/31/2008	7	\$ 72.25	\$ 449,804
11/1/2008	11/30/2008	298	\$ 67.03	\$ 449,804
12/1/2008	12/31/2008	281	\$ 66.56	\$ 449,804
Total		586	\$ 66.87	\$ 449,804

(1) ACGL repurchases shares, from time to time, from employees in order to facilitate the payment of withholding taxes on restricted shares granted and the exercise of stock appreciation rights. We purchased these shares at their fair market value, as determined by reference to the closing price of our common shares on the day the restricted shares vested or the stock appreciation rights were exercised.

(2) ACGL's board of directors authorized ACGL to invest up to \$1.5 billion in ACGL's common shares through a share repurchase program. Such amount consisted of a \$1.0 billion authorization in February 2007 and a \$500.0 million authorization in May 2008. Repurchases under the program may be effected from time to time in open market or privately negotiated transactions through February 2010. Since the inception of the share repurchase program, ACGL has repurchased approximately 15.3 million common shares for an aggregate purchase price of \$1.05 billion. The timing and amount of the repurchase transactions under this program will depend on a variety of factors, including market conditions and corporate and regulatory considerations. In connection with the repurchase program, the Warburg Pincus funds waived their rights relating to share repurchases under the shareholders agreement for all repurchases of common shares by ACGL under the repurchase program in open market transactions and certain privately negotiated transactions.

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**PERFORMANCE GRAPH**

The following graph compares the cumulative total shareholder return on our common shares for each of the last five years through December 31, 2008 to the cumulative total return, assuming reinvestment of dividends, of (1) Standard & Poor's ("S&P") 500 Composite Stock Index ("S&P 500 Index") and (2) the S&P 500 Property & Casualty Insurance Index. The share price performance presented below is not necessarily indicative of future results.

**CUMULATIVE TOTAL SHAREHOLDER RETURN(1)(2)(3)**

- 
- (1) Stock price appreciation plus dividends.
  - (2) The above graph assumes that the value of the investment was \$100 on December 31, 2003. The closing price for our common shares on December 31, 2008 (i.e., the last trading day in 2008) was \$70.10.
  - (3) This graph is not "soliciting material," is not deemed filed with the SEC and is not to be incorporated by reference in any filing by us under the Securities Act of 1933, as amended or the Securities and Exchange Act of 1934, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing.



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The following table sets forth summary historical consolidated financial and operating data for the five-year period ended December 31, 2008 and should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our financial statements and the related notes.

	Years Ended December 31,				
(U.S. dollars in thousands except share data)	2008	2007	2006	2005	2004
<b>Statement of Income Data:</b>					
Revenues:					
Net premiums written	\$ 2,805,726	\$ 2,901,936	\$ 3,017,418	\$ 3,138,772	\$ 2,980,032
Net premiums earned	2,845,454	2,944,650	3,081,665	2,977,716	2,915,882
Net investment income	468,080	463,070	377,534	232,902	143,705
Equity in net income (loss) of investment funds accounted for using the equity method	(178,608)	(171)	2,671		
Net realized gains (losses)	(185,101)	28,141	(19,437)	(53,456)	30,237
Total revenues	2,966,813	3,452,445	3,452,678	3,167,529	3,104,050
Income before income taxes	304,505	873,544	739,893	285,435	343,127
Net income	290,966	857,943	713,214	256,486	316,899
Preferred dividends	(25,844)	(25,844)	(20,655)		
Net income available to common shareholders	\$ 265,122	\$ 832,099	\$ 692,559	\$ 256,486	\$ 316,899
Weighted average common shares and common share equivalents outstanding:					
Basic	62,101,203	70,995,672	73,212,432	35,342,650	31,560,737
Diluted	64,789,052	73,762,419	76,246,725	74,709,858	72,519,045
Net income per common share data:					
Basic	\$ 4.27	\$ 11.72	\$ 9.46	\$ 7.26	\$ 10.04
Diluted	\$ 4.09	\$ 11.28	\$ 9.08	\$ 3.43	\$ 4.37
Cash dividends per share					

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(U.S. dollars in thousands except share data)	December 31,				
	2008	2007	2006	2005	2004
<b>Balance Sheet Data:</b>					
Total investments and cash(1)	\$ 9,992,239	\$ 10,129,663	\$ 9,319,148	\$ 7,119,450	\$ 5,835,515
Premiums receivable	628,951	729,628	749,961	672,902	520,781
Unpaid losses and loss adjustment expenses recoverable	1,729,135	1,609,619	1,552,157	1,389,768	617,607
Total assets	14,616,545	15,624,267	14,312,467	11,488,436	8,218,754
Reserves for losses and loss adjustment expenses:					
Before unpaid losses and loss adjustment expenses recoverable	7,666,957	7,092,452	6,463,041	5,452,826	3,492,759
Net of unpaid losses and loss adjustment expenses recoverable	5,937,822	5,482,833	4,910,884	4,063,058	2,875,152
Unearned premiums:					
Before prepaid reinsurance premiums	1,526,682	1,765,881	1,791,922	1,699,691	1,518,162
Net of prepaid reinsurance premiums	1,222,975	1,285,419	1,321,784	1,377,256	1,219,795
Senior notes	300,000	300,000	300,000	300,000	300,000
Revolving credit agreement borrowings	100,000				
Total liabilities	11,183,580	11,588,456	10,721,848	9,007,909	5,976,848
Common shareholders' equity	3,107,965	3,710,811	3,265,619	2,480,527	2,241,906
Preferred shareholders' equity	325,000	325,000	325,000		
Total shareholders' equity	3,432,965	4,035,811	3,590,619	2,480,527	2,241,906
Book value:(2)(3)					
Per common share	\$ 51.36	\$ 55.12	\$ 43.97	\$ 33.82	\$ 41.76
Diluted	\$ 51.36	\$ 55.12	\$ 43.97	\$ 33.82	\$ 31.03
Shares outstanding:					
Basic	60,511,974	67,318,466	74,270,466	73,334,870	34,902,923
Diluted	60,511,974	67,318,466	74,270,466	73,334,870	72,251,073

(1) In our securities lending transactions, we receive 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, we have excluded \$730.2 million, \$1.5 billion, \$891.4 million and \$893.4 million, respectively, of collateral received which is reflected as "investment of funds received under securities lending agreements, at market value" and included \$728.1 million, \$1.46 billion, \$860.8 million and \$863.9 million, respectively, of "fixed maturities and short-term investments pledged under securities lending agreements, at market value" at December 31, 2008, 2007, 2006 and 2005.

(2) Book value per share excludes the effects of stock options and restricted stock units and, at December 31, 2004, class B warrants.

(3) Book value per common share at December 31, 2004 was determined by dividing (i) the difference between total shareholders' equity and the aggregate liquidation preference of the series A convertible preference shares of \$784.3 million by (ii) the number of common shares outstanding. All outstanding series A convertible preference shares were converted to common shares in 2005.

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**ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS**

The following discussion and analysis contains forward-looking statements which involve inherent risks and uncertainties. All statements other than statements of historical fact are forward-looking statements. These statements are based on our current assessment of risks and uncertainties. Actual results may differ materially from those expressed or implied in these statements and, therefore, undue reliance should not be placed on them. Important factors that could cause actual events or results to differ materially from those indicated in such statements are discussed in this report, including the sections entitled "Cautionary Note Regarding Forward-Looking Statements," and "Risk Factors."

This discussion and analysis should be read in conjunction with our audited consolidated financial statements and notes thereto presented under Item 8.

**GENERAL**

**Overview**

Arch Capital Group Ltd. ("ACGL" and, together with its subsidiaries, "we" or "us") is a Bermuda public limited liability company with over \$3.8 billion in capital at December 31, 2008 and, through operations in Bermuda, the United States, Europe and Canada, writes insurance and reinsurance on a worldwide basis. While we are positioned to provide a full range of property and casualty insurance and reinsurance lines, we focus on writing specialty lines of insurance and reinsurance. It is our belief that our underwriting platform, our experienced management team and our strong capital base that is unencumbered by significant pre-2002 risks have enabled us to establish a strong presence in the insurance and reinsurance markets.

The worldwide insurance and reinsurance industry is highly competitive and has traditionally been subject to an underwriting cycle in which a hard market (high premium rates, restrictive underwriting standards, as well as terms and conditions, and underwriting gains) is eventually followed by a soft market (low premium rates, relaxed underwriting standards, as well as broader terms and conditions, and underwriting losses). Insurance market conditions may affect, among other things, the demand for our products, our ability to increase premium rates, the terms and conditions of the insurance policies we write, changes in the products offered by us or changes in our business strategy.

The financial results of the insurance and reinsurance industry are influenced by factors such as the frequency and/or severity of claims and losses, including natural disasters or other catastrophic events, variations in interest rates and financial markets, changes in the legal, regulatory and judicial environments, inflationary pressures and general economic conditions. These factors influence, among other things, the demand for insurance or reinsurance, the supply of which is generally related to the total capital of competitors in the market.

In general, market conditions improved during 2002 and 2003 in the insurance and reinsurance marketplace. This reflected improvement in pricing, terms and conditions following significant industry losses arising from the events of September 11, 2001, as well as the recognition that intense competition in the late 1990s led to inadequate pricing and overly broad terms, conditions and coverages. Such industry developments resulted in poor financial results and erosion of the industry's capital base. Consequently, many established insurers and reinsurers reduced their participation in, or exited from, certain markets and, as a result, premium rates escalated in many lines of business. These developments provided relatively new insurers and reinsurers, like us, with an opportunity to provide needed underwriting capacity. Beginning in late 2003 and continuing through 2005, additional capacity emerged in many classes of business and, consequently, premium rate increases decelerated significantly and, in many classes of business, premium rates decreased. The weather-related catastrophic events that occurred in the second half of 2005 caused significant industry losses and led to a strengthening of

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rating agency capital requirements for catastrophe-exposed business. The 2005 events also resulted in substantial improvements in market conditions in property and certain marine lines of business and slowed declines in premium rates in other lines. During 2006 and 2007, excellent industry results led to a significant increase in capacity and, accordingly, competition intensified in 2007 and prices, in general, declined in all lines of business, including property. We increased our writings in property and certain marine lines of business in 2006, 2007 and 2008 in order to take advantage of improved market conditions and these lines represented a larger proportion of our overall book of business in 2006, 2007 and 2008 than in prior periods.

**Current Outlook**

During the second half of 2008, the financial markets have experienced significant adverse credit events and a loss of liquidity, which have reduced the amount and availability of capital in the insurance industry. In addition, certain of our competitors have experienced significant financial difficulties. We believe that the impacts of such events, along with the recent catastrophic activity, have begun to affect market conditions positively and may lead to rate strengthening in a number of specialty lines. However, the current economic conditions also could have a material impact on the frequency and severity of claims and therefore could negatively impact our underwriting returns. In addition, volatility in the financial markets could continue to significantly affect our investment returns, reported results and shareholders equity. We consider the potential impact of economic trends in the estimation process for establishing unpaid losses and loss adjustment expenses ("LAE") and in determining our investment strategies.

We continue to believe that the most attractive area from a pricing point of view remains U.S. catastrophe-related property business. We expect that our writings in property and marine lines of business will continue to represent a significant proportion of our overall book of business in future periods and may represent a larger proportion of our overall book of business in future periods, which could increase the volatility of our results of operations. We seek to limit the probable maximum pre-tax loss to a specific level for severe catastrophic events. Currently, we generally seek to limit the probable maximum pre-tax loss to approximately 25% of total shareholders' equity for a severe catastrophic event in any geographic zone that could be expected to occur once in every 250 years, although we reserve the right to change this threshold at any time. As of January 1, 2009, the probable maximum pre-tax loss for a catastrophic event in any geographic zone arising from a 1-in-250 year event was approximately \$763 million, compared to \$820 million as of October 1, 2008. There can be no assurances that we will not suffer pre-tax losses greater than 25% of our total shareholders' equity from one or more catastrophic events due to several factors, including the inherent uncertainties in estimating the frequency and severity of such events and the margin of error in making such determinations resulting from potential inaccuracies and inadequacies in the data provided by clients and brokers, the modeling techniques and the application of such techniques or as a result of a decision to change the percentage of shareholders' equity exposed to a single catastrophic event. See "Risk Factors Risk Relating to Our Industry" and "Management's Discussion and Analysis of Financial Condition and Results of Operations Natural and Man-Made Catastrophic Events."

In addition, in the 2009 first quarter, we received approval in principle from the Lloyd's Franchise Board and the Financial Services Authority in the United Kingdom to establish a managing agent and syndicate at Lloyd's. The newly formed Syndicate 2012 is expected to commence underwriting in the 2009 second quarter.

**History**

We commenced operations in September 1995 following the completion of the initial public offering of our predecessor, Arch Capital Group (U.S.) Inc. ("Arch-U.S."). Arch-U.S. is a Delaware company formed in March 1995 under the original name of "Risk Capital Holdings, Inc." From that

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time until May 2000, we provided reinsurance and other forms of capital to insurance companies. On May 5, 2000, we sold our prior reinsurance book of business to White Mountains Reinsurance Company of America ("WTM Re"), formerly known as Folksamerica Reinsurance Company, in an asset sale, but retained our surplus and our U.S.-licensed reinsurance platform. On November 8, 2000, following shareholder approval, we changed our legal domicile to Bermuda in order to benefit from Bermuda's favorable business, regulatory, tax and financing environment.

During the period from May 2000 through the announcement of our underwriting initiative in October 2001, we built and acquired insurance businesses that were intended to enable us to generate both fee-based revenue (e.g., commissions and advisory and management fees) and risk-based revenue (i.e., insurance premium). As part of this strategy, we built an underwriting platform that was intended to enable us to maximize risk-based revenue during periods in the underwriting cycle when we believed it was more favorable to assume underwriting risk. In October 2001, we concluded that underwriting conditions favored dedicating our attention exclusively to building our insurance and reinsurance businesses.

In October 2001, we launched an underwriting initiative to meet current and future demand in the global insurance and reinsurance markets that included the recruitment of new insurance and reinsurance management teams and an equity capital infusion of \$763.2 million in the form of convertible preference shares. In April 2002, we completed an offering of common shares and received net proceeds of \$179.2 million and, in September 2002, we received proceeds of \$74.3 million from the exercise of class A warrants by our principal shareholders and certain other investors. In March 2004, we completed a public offering of common shares and received net proceeds of \$179.3 million and, in May 2004, we completed a public offering of \$300.0 million principal amount of 7.35% senior notes due May 1, 2034 and received net proceeds of \$296.4 million, of which \$200.0 million of the net proceeds was used to repay all amounts outstanding under our existing credit facility. In 2006, we issued \$325.0 million of non-cumulative preferred shares in public offerings and received net proceeds of \$314.4 million. The board of directors of ACGL has authorized the investment of up to \$1.5 billion in ACGL's common shares through a share repurchase program. Such amount consisted of a \$1.0 billion authorization in February 2007 and a \$500.0 million authorization in May 2008. Repurchases under the program may be effected from time to time in open market or privately negotiated transactions through February 2010. Since the inception of the share repurchase program, ACGL has repurchased approximately 15.3 million common shares for an aggregate purchase price of \$1.05 billion. The timing and amount of the repurchase transactions under this program will depend on a variety of factors, including market conditions and corporate and regulatory considerations.

**Revenues**

We derive our revenues primarily from the issuance of insurance policies and reinsurance contracts. Insurance and reinsurance premiums are driven by the volume and classes of business of the policies and contracts that we write which, in turn, are related to prevailing market conditions. The premium we charge for the risks assumed is also based on many assumptions. We price these risks well before our ultimate costs are known, which may extend many years into the future. In addition, our revenues include fee income and income we generate from our investment portfolio. Our investment portfolio is comprised primarily of fixed income investments that are classified as "available for sale." Under accounting principles generally accepted in the United States of America ("GAAP"), these investments are carried at market value and unrealized gains and losses on the investments are not included in our statement of income. These unrealized gains and losses are included in accumulated other comprehensive income or loss as a separate component of shareholders' equity in our balance sheet.

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**Costs and Expenses**

Our costs and expenses primarily consist of losses and LAE, acquisition expenses and other operating expenses. Losses and LAE include management's best estimate of the ultimate cost of claims incurred during a reporting period. Such costs consist of three components: paid losses, changes in estimated amounts for known losses ("case reserves"), and changes in reserves for incurred but not reported ("IBNR") losses. See "Critical Accounting Policies, Estimates and Recent Accounting Pronouncements Reserves for Losses and Loss Adjustment Expenses" for further discussion. Acquisition expenses, net of ceding commissions received from unaffiliated reinsurers, consist primarily of commissions, brokerage and taxes paid to obtain our business. A significant portion of such costs is paid based on a percentage of the premium written and will vary for each class or type of business that we underwrite. Other operating expenses consist primarily of certain company costs necessary to support our worldwide insurance and reinsurance operations. A large portion of such costs are compensation-related and include share-based compensation.

**CRITICAL ACCOUNTING POLICIES, ESTIMATES AND RECENT ACCOUNTING PRONOUNCEMENTS**

The preparation of consolidated financial statements in accordance with GAAP requires us to make many estimates and judgments that affect the reported amounts of assets, liabilities (including reserves), revenues and expenses, and related disclosures of contingent liabilities. On an ongoing basis, we evaluate our estimates, including those related to revenue recognition, insurance and other reserves, reinsurance recoverables, allowance for doubtful accounts, investment valuations, intangible assets, bad debts, income taxes, contingencies and litigation. We base our estimates on historical experience, where possible, and on various other assumptions that we believe to be reasonable under the circumstances, which form the basis for our judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Estimates and judgments for a relatively new insurance and reinsurance company, like our company, are even more difficult to make than those made in a mature company since relatively limited historical information has been reported to us through December 31, 2008. Actual results will differ from these estimates and such differences may be material. We believe that the following critical accounting policies require our more significant judgments and estimates used in the preparation of our consolidated financial statements.

**Reserves for Losses and Loss Adjustment Expenses**

We are required by applicable insurance laws and regulations and GAAP to establish reserves for losses and LAE ("Loss Reserves") that arise from the business we underwrite. Loss Reserves for our insurance and reinsurance operations are balance sheet liabilities representing estimates of future amounts required to pay losses and LAE for insured or reinsured events which have occurred at or before the balance sheet date. Loss Reserves do not reflect contingency reserve allowances to account for future loss occurrences. Losses arising from future events will be estimated and recognized at the time the losses are incurred and could be substantial.

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At December 31, 2008 and 2007, our Loss Reserves, net of unpaid losses and loss adjustment expenses recoverable, by type and by operating segment were as follows:

(U.S. dollars in thousands)	December 31,	
	2008	2007
<b>Insurance:</b>		
Case reserves.	\$ 1,043,168	\$ 811,054
IBNR reserves	2,257,735	2,100,696
Total net reserves	\$ 3,300,903	\$ 2,911,750
<b>Reinsurance:</b>		
Case reserves.	\$ 661,621	\$ 623,419
Additional case reserves	87,820	80,438
IBNR reserves	1,887,478	1,867,226
Total net reserves	\$ 2,636,919	\$ 2,571,083
<b>Total:</b>		
Case reserves.	\$ 1,704,789	\$ 1,434,473
Additional case reserves	87,820	80,438
IBNR reserves	4,145,213	3,967,922
Total net reserves	\$ 5,937,822	\$ 5,482,833

***Insurance Operations***

Loss Reserves for our insurance operations are comprised of (1) case reserves for claims reported and (2) reserves for losses that have occurred but for which claims have not yet been reported, referred to as IBNR reserves. For our insurance operations, generally, claims personnel determine whether to establish a case reserve for the estimated amount of the ultimate settlement of individual claims. The estimate reflects the judgment of claims personnel based on general corporate reserving practices, the experience and knowledge of such personnel regarding the nature and value of the specific type of claim and, where appropriate, advice of counsel. Our insurance operations also contract with a number of outside third party administrators in the claims process who, in certain cases, have limited authority to establish case reserves. The work of such administrators is reviewed and monitored by our claims personnel. Loss Reserves are also established to provide for LAE and represent the estimated expense of settling claims, including legal and other fees and the general expenses of administering the claims adjustment process. Periodically, adjustments to the reported or case reserves may be made as additional information regarding the claims is reported or payments are made. IBNR reserves are established to provide for incurred claims which have not yet been reported to an insurer or reinsurer at the balance sheet date as well as to adjust for any projected variance in case reserving. IBNR reserves are derived by subtracting paid losses and LAE and case reserves from estimates of ultimate losses and LAE. Actuaries estimate ultimate losses and LAE using various generally accepted actuarial methods applied to known losses and other relevant information. Like case reserves, IBNR reserves are adjusted as additional information becomes known or payments are made. The process of estimating reserves involves a considerable degree of judgment by management and, as of any given date, is inherently uncertain.

Ultimate losses and LAE are generally determined by extrapolation of claim emergence and settlement patterns observed in the past that can reasonably be expected to persist into the future. In forecasting ultimate losses and LAE with respect to any line of business, past experience with respect to that line of business is the primary resource, developed through both industry and company experience, but cannot be relied upon in isolation. Uncertainties in estimating ultimate losses and LAE

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are magnified by the time lag between when a claim actually occurs and when it is reported and settled. This time lag is sometimes referred to as the "claim-tail". The claim-tail for most property coverages is typically short (usually several months up to a few years). The claim-tail for certain professional liability, executive assurance and healthcare coverages, which are generally written on a claims-made basis, is typically longer than property coverages but shorter than casualty lines. The claim-tail for liability/casualty coverages, such as general liability, products liability, multiple peril coverage, and workers' compensation, may be especially long as claims are often reported and ultimately paid or settled years, even decades, after the related loss events occur. During the long claims reporting and settlement period, additional facts regarding coverages written in prior accident years, as well as about actual claims and trends, may become known and, as a result, our insurance operations may adjust their reserves. If management determines that an adjustment is appropriate, the adjustment is recorded in the accounting period in which such determination is made in accordance with GAAP. Accordingly, should Loss Reserves need to be increased or decreased in the future from amounts currently established, future results of operations would be negatively or positively impacted, respectively.

In determining ultimate losses and LAE, the cost to indemnify claimants, provide needed legal defense and other services for insureds and administer the investigation and adjustment of claims are considered. These claim costs are influenced by many factors that change over time, such as expanded coverage definitions as a result of new court decisions, inflation in costs to repair or replace damaged property, inflation in the cost of medical services and legislated changes in statutory benefits, as well as by the particular, unique facts that pertain to each claim. As a result, the rate at which claims arose in the past and the costs to settle them may not always be representative of what will occur in the future. The factors influencing changes in claim costs are often difficult to isolate or quantify and developments in paid and incurred losses from historical trends are frequently subject to multiple and conflicting interpretations. Changes in coverage terms or claims handling practices may also cause future experience and/or development patterns to vary from the past. A key objective of actuaries in developing estimates of ultimate losses and LAE, and resulting IBNR reserves, is to identify aberrations and systemic changes occurring within historical experience and accurately adjust for them so that the future can be projected reliably. Because of the factors previously discussed, this process requires the substantial use of informed judgment and is inherently uncertain.

At December 31, 2008 and 2007, Loss Reserves for our insurance operations by major line of business, net of unpaid losses and loss adjustment expenses recoverable, were as follows:

(U.S. dollars in thousands)	December 31,	
	2008	2007
Casualty	\$ 673,513	\$ 647,842
Property, marine and aviation.	518,476	345,177
Construction and national accounts	514,467	431,309
Professional liability	460,891	412,527
Executive assurance	445,922	431,068
Programs	400,245	370,852
Healthcare	148,915	153,018
Surety	79,705	87,232
Other	58,769	32,725
Total net reserves	\$3,300,903	\$2,911,750

The reserving method for our insurance operations to date has been, to a large extent, the expected loss method, which is commonly applied when limited loss experience exists. Over time, other common reserving methodologies have begun to be employed. Any estimates and assumptions made as



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part of the reserving process could prove to be inaccurate due to several factors, including the fact that relatively limited historical information has been reported to our insurance operations through December 31, 2008 in some lines of business. See below for a discussion of the key assumptions in our insurance operations' reserving process.

Although Loss Reserves are initially determined based on underwriting and pricing analysis, our insurance operations apply several generally accepted actuarial methods, as discussed below, on a quarterly basis to evaluate their Loss Reserves, in addition to the expected loss method, in particular for Loss Reserves from more mature accident years (the year in which a loss occurred). As noted below, beginning in 2005, our insurance operations began to give a relatively small amount of weight to their own experience following reviews of open claims on lines of business written on a claims-made basis for which they developed a reasonable level of credible data. Each quarter, as part of the reserving process, actuaries at our insurance operations reaffirm that the assumptions used in the reserving process continue to form a sound basis for the projection of liabilities. If actual loss activity differs substantially from expectations based on historical information, an adjustment to loss reserves may be supported. Estimated Loss Reserves for more mature accident years are now based more on historical loss activity and patterns than on the initial assumptions based on pricing indications. The more recent accident years continue to be mainly based on internal pricing assumptions. Our insurance operations place more or less reliance on a particular actuarial method based on the facts and circumstances at the time the estimates of Loss Reserves are made. These methods generally fall into one of the following categories or are hybrids of one or more of the following categories:

*Expected loss methods* these methods are based on the assumption that ultimate losses vary proportionately with premiums. Expected loss and LAE ratios are typically developed based upon the information derived by underwriters and actuaries during the initial pricing of the business, supplemented by industry data available from organizations, such as statistical bureaus and consulting firms, where appropriate. These ratios consider, among other things, rate increases and changes in terms and conditions that have been observed in the market. Expected loss methods are useful for estimating ultimate losses and LAE in the early years of long-tailed lines of business, when little or no paid or incurred loss information is available, and is commonly applied when limited loss experience exists for a company.

*Historical incurred loss development methods* these methods assume that the ratio of losses in one period to losses in an earlier period will remain constant in the future. These methods use incurred losses (i.e., the sum of cumulative historical loss payments plus outstanding case reserves) over discrete periods of time to estimate future losses. Historical incurred loss development methods may be preferable to historical paid loss development methods because they explicitly take into account open cases and the claims adjusters' evaluations of the cost to settle all known claims. However, historical incurred loss development methods necessarily assume that case reserving practices are consistently applied over time. Therefore, when there have been significant changes in how case reserves are established, using incurred loss data to project ultimate losses may be less reliable than other methods.

*Historical paid loss development methods* these methods, like historical incurred loss development methods, assume that the ratio of losses in one period to losses in an earlier period will remain constant. These methods use historical loss payments over discrete periods of time to estimate future losses and necessarily assume that factors that have affected paid losses in the past, such as inflation or the effects of litigation, will remain constant in the future. Because historical paid loss development methods do not use incurred losses to estimate ultimate losses, they may be more reliable than the other methods that use incurred losses in situations where there are significant changes in how incurred losses are established by a company's claims adjusters. However, historical paid loss development methods are more leveraged (meaning that small changes in payments have a larger impact on estimates of ultimate losses) than actuarial

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methods that use incurred losses because cumulative loss payments take much longer to equal the expected ultimate losses than cumulative incurred amounts. In addition, and for similar reasons, historical paid loss development methods are often slow to react to situations when new or different factors arise than those that have affected paid losses in the past.

*Adjusted historical paid and incurred loss development methods* these methods take traditional historical paid and incurred loss development methods and adjust them for the estimated impact of changes from the past in factors such as inflation, the speed of claim payments or the adequacy of case reserves. Adjusted historical paid and incurred loss development methods are often more reliable methods of predicting ultimate losses in periods of significant change, provided the actuaries can develop methods to reasonably quantify the impact of changes. As such, these methods utilize more judgment than historical paid and incurred loss development methods.

*Bornhuetter-Ferguson ("B-F") paid and incurred loss methods* these methods utilize actual paid and incurred losses and expected patterns of paid and incurred losses, taking the initial expected ultimate losses into account to determine an estimate of expected ultimate losses. The B-F paid and incurred loss methods are useful when there are few reported claims and a relatively less stable pattern of reported losses.

*Additional analyses* other methodologies are often used in the reserving process for specific types of claims or events, such as catastrophic or other specific major events. These include vendor catastrophe models, which are typically used in the estimation of Loss Reserves at the early stage of known catastrophic events before information has been reported to an insurer or reinsurer, and analyses of specific industry events, such as large lawsuits or claims.

In the initial reserving process for casualty business, primarily consisting of primary and excess exposures written on an occurrence basis, our insurance operations primarily rely on the expected loss method. The development of our insurance operations' casualty business may be unstable due to its long-tail nature and the occurrence of high severity events, as a portion of our insurance operations' casualty business is in high excess layers. As time passes, for a given accident year, additional weight is given to the paid and incurred B-F loss development methods and historical paid and incurred loss development methods in the reserving process. Our insurance operations make a number of key assumptions in reserving for casualty business, including that the pricing loss ratio is the best estimate of the ultimate loss ratio at the time the policy is entered into, that our insurance operations' loss development patterns, which are based on industry loss development patterns and adjusted to reflect differences in our insurance operations' mix of business, are reasonable and that our insurance operations' claims personnel and underwriters analyses of our exposure to major events are assumed to be our best estimate of our exposure to the known claims on those events. As noted earlier, due to the long claims reporting and settlement period for casualty business, additional facts regarding coverages written in prior accident years, as well as about actual claims and trends may become known and, as a result, our insurance operations may be required to adjust their casualty reserves. The expected loss ratios used in the initial reserving process for our insurance operations' casualty business for recent accident years have not varied significantly from earlier accident years due to the long-tail nature of the business written and the limited number of years of historical experience available for use in projecting loss experience using standard actuarial methods. As the credibility of historical experience for earlier accident years increases, the experience from these accident years will be given a greater weighting in the actuarial analysis to determine future accident year expected loss ratios, adjusted for changes in pricing, loss trends, terms and conditions and reinsurance structure.

In the initial reserving process for property, marine and aviation business, which are primarily short-tail exposures, our insurance operations rely on a combination of the reserving methods discussed above. For catastrophe-exposed business, our insurance operations' reserving process also includes the

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usage of catastrophe models for known events and a heavy reliance on analysis of individual catastrophic events and management judgment. The development of property losses can be unstable, especially for policies characterized by high severity, low frequency losses. As time passes, for a given accident year, additional weight is given to the paid and incurred B-F loss development methods and historical paid and incurred loss development methods in the reserving process. Our insurance operations make a number of key assumptions in their reserving process, including that historical paid and reported development patterns are stable, catastrophe models provide useful information about our exposure to catastrophic events that have occurred and our underwriters' judgment as to potential loss exposures can be relied on. The expected loss ratios used in the initial reserving process for our insurance operations' property business have varied over time due to changes in pricing, reinsurance structure, estimates of catastrophe losses, policy changes (such as attachment points, class and limits) and geographical distribution. As losses in property lines are reported relatively quickly, expected loss ratios are selected for the current accident year based upon actual attritional loss ratios for earlier accident years, adjusted for rate changes, inflation, changes in reinsurance programs and expected attritional losses based on modeling. Due to the short-tail nature of property business, reported loss experience emerges quickly and ultimate losses are known in a reasonably short period of time.

In addition to the assumptions and development characteristics noted above for casualty and property business, our insurance operations authorize managing general agents, general agents and other producers to write program business on their behalf within prescribed underwriting authorities. This adds additional complexity to the reserving process. To monitor adherence to the underwriting guidelines given to such parties, our insurance operations periodically perform claims due diligence reviews. In the initial reserving process for program business, consisting of property and liability exposures which are primarily written on an occurrence basis, our insurance operations primarily rely on the expected loss method. As time passes, for a given accident year, additional weight is given to the paid and incurred B-F loss development methods and historical paid and incurred loss development methods in the reserving process. The expected loss ratios used in the initial reserving process for our insurance operations' program business have varied over time depending on the type of exposures written (casualty or property) and changes in pricing, loss trends, reinsurance structure and changes in the underlying business.

In the initial reserving process for executive assurance, professional liability and healthcare business, primarily consisting of medium-tail exposures written on a claims-made basis, our insurance operations primarily rely on the expected loss method. As time passes, for a given accident year, additional weight is given to the paid and incurred B-F loss development methods and historical paid and incurred loss development methods in the reserving process. Beginning in 2005, our insurance operations began to give a relatively small amount of weight to their own experience following reviews of open claims, in particular for lines of business written on a claims-made basis for which they developed a reasonable level of credible data. Over the last few years, our insurance operations have increased their reliance on reviews of open claims. In general, the expected loss ratios established for executive assurance, professional liability and healthcare business for recent accident years vary, in some cases materially, from earlier accident years based on analysis of pricing, loss cost trends and changes in policy coverage. Since this business is primarily written on a claims-made basis and is subject to high severity, low frequency losses, a great deal of uncertainty exists in setting these initial reserves. In addition, only a limited number of years of historical experience is available for use in projecting loss experience using standard actuarial methods. As the credibility of historical experience for earlier accident years increases, the experience from these accident years will be given a greater weighting in the actuarial analysis to determine future accident year expected loss ratios, adjusted for the occurrence or lack of large losses, changes in pricing, loss trends, terms and conditions and reinsurance structure.

In the initial reserving process for construction and surety business, consisting of primary and excess casualty and contract surety coverages written on an occurrence and claims-made basis, our

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insurance operations primarily rely on a combination of the reserving methods discussed above. Such business is subject to the assumptions and development characteristics noted above for casualty business. As time passes, for a given accident year, additional weight has been given to the paid and incurred B-F loss development methods and historical paid and incurred loss development methods in the reserving process. In general, the expected loss ratios used in the initial reserving process for our insurance operations' construction and surety business for recent accident years vary, in some cases materially, from earlier accident years. As the credibility of historical experience for earlier accident years has increased, the experience from these accident years has been given a greater weighting in the actuarial analysis to determine future accident year expected loss ratios, adjusted for anticipated changes in the regulatory environment, pricing, loss trends, terms and conditions and reinsurance structure.

For the years ended December 31, 2006 to 2008, on average, our insurance segment reported approximately \$33 million of estimated net favorable development in prior year Loss Reserves, or approximately 1.4% of average beginning Loss Reserves. Of such amount, approximately \$36 million came from medium-tail lines, or 3.4% of beginning medium-tail Loss Reserves and \$25 million from long-tail lines, or 2.7% of average beginning long-tail Loss Reserves, offset partially by adverse development of \$28 million from short-tail lines, or 6.9% of average beginning short-tail Loss Reserves. For the year ended December 31, 2008, estimated net favorable development in prior year Loss Reserves was approximately \$79 million, or 2.7% of beginning Loss Reserves. Such amount consisted of approximately \$68 million from medium-tail lines, or 5.4% of beginning medium-tail Loss Reserves, and \$17 million from long-tail lines, or 1.4% of beginning long-tail Loss Reserves, partially offset by adverse development of \$6 million from short-tail lines, or 1.1% of beginning short-tail Loss Reserves. For informational purposes, based on historical results, applying the 1.4% average estimated net favorable development in average beginning Loss Reserves for the years ended December 31, 2006 to 2008 to our insurance segment's net Loss Reserves of \$3.3 billion at December 31, 2008 would result in an increase in income before income taxes of approximately \$46 million, or \$0.71 per diluted share, and applying the 2.7% of estimated net favorable development in beginning Loss Reserves for the year ended December 31, 2008 to such Loss Reserves would result in an increase in income before income taxes of approximately \$90 million, or \$1.38 per diluted share. The amounts noted above are informational only and should not be considered projections of future events. Future favorable or adverse development in our insurance segment's Loss Reserves is subject to numerous factors, and no assurances can be given that we will experience favorable development in our Loss Reserves or that our ultimate losses will not be significantly different than the amounts shown above, and such differences could directly and significantly impact earnings favorably or unfavorably in the period they are determined. Because of our insurance segment's limited operating history, the sensitivity analysis above is one way to gauge the impact of changes in the assumptions in our reserving process. For another estimate of potential variability in our insurance segment's Loss Reserves, see "Simulation Results." Refer to "Results of Operations" for a discussion on net favorable or adverse development of our insurance operations' prior year Loss Reserves.

***Reinsurance Operations***

Loss Reserves for our reinsurance operations are comprised of (1) case reserves for claims reported, (2) additional case reserves ("ACRs") and (3) IBNR reserves. Our reinsurance operations receive reports of claims notices from ceding companies and record case reserves based upon the amount of reserves recommended by the ceding company. Case reserves on known events may be supplemented by ACRs, which are often estimated by our reinsurance operations' claims personnel ahead of official notification from the ceding company, or when our reinsurance operations' judgment regarding the size or severity of the known event differs from the ceding company. In certain instances, our reinsurance operations establish ACRs even when the ceding company does not report any liability on a known event. In addition, specific claim information reported by ceding companies or obtained

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through claim audits can alert our reinsurance operations to emerging trends such as changing legal interpretations of coverage and liability, claims from unexpected sources or classes of business, and significant changes in the frequency or severity of individual claims. Such information is often used in the process of estimating IBNR reserves.

The estimation of Loss Reserves for our reinsurance operations is subject to the same risk factors as the estimation of Loss Reserves for our insurance operations. In addition, the inherent uncertainties of estimating such reserves are even greater for reinsurers, due primarily to the following factors: (1) the claim-tail for reinsurers is generally longer because claims are first reported to the ceding company and then to the reinsurer through one or more intermediaries, (2) the reliance on premium estimates, where reports have not been received from the ceding company, in the reserving process, (3) the potential for writing a number of reinsurance contracts with different ceding companies with the same exposure to a single loss event, (4) the diversity of loss development patterns among different types of reinsurance treaties or facultative contracts, (5) the necessary reliance on the ceding companies for information regarding reported claims and (6) the differing reserving practices among ceding companies.

As with our insurance operations, the process of estimating Loss Reserves for our reinsurance operations involves a considerable degree of judgment by management and, as of any given date, is inherently uncertain. As discussed above, such uncertainty is greater for reinsurers compared to insurers. As a result, our reinsurance operations obtain information from numerous sources to assist in the process. Pricing actuaries from our reinsurance operations devote considerable effort to understanding and analyzing a ceding company's operations and loss history during the underwriting of the business, using a combination of ceding company and industry statistics. Such statistics normally include historical premium and loss data by class of business, individual claim information for larger claims, distributions of insurance limits provided, loss reporting and payment patterns, and rate change history. This analysis is used to project expected loss ratios for each treaty during the upcoming contract period.

As mentioned above, there can be a considerable time lag from the time a claim is reported to a ceding company to the time it is reported to the reinsurer. The lag can be several years in some cases and may be attributed to a number of reasons, including the time it takes to investigate a claim, delays associated with the litigation process, the deterioration in a claimant's physical condition many years after an accident occurs, the case reserving approach of the ceding company, etc. In the reserving process, our reinsurance operations assume that such lags are predictable, on average, over time and therefore the lags are contemplated in the loss reporting patterns used in their actuarial methods. This means that our reinsurance operations must rely on estimates for a longer period of time than does an insurance company.

Backlogs in the recording of assumed reinsurance can also complicate the accuracy of loss reserve estimation. As of December 31, 2008, there were no significant backlogs related to the processing of assumed reinsurance information at our reinsurance operations.

Our reinsurance operations rely heavily on information reported by ceding companies, as discussed above. In order to determine the accuracy and completeness of such information, underwriters, actuaries, and claims personnel at our reinsurance operations often perform audits of ceding companies and regularly review information received from ceding companies for unusual or unexpected results. Material findings are usually discussed with the ceding companies. Our reinsurance operations sometimes encounter situations where they determine that a claim presentation from a ceding company is not in accordance with contract terms. In these situations, our reinsurance operations attempt to resolve the dispute with the ceding company. Most situations are resolved amicably and without the need for litigation or arbitration. However, in the infrequent situations where a resolution is not possible, our reinsurance operations will vigorously defend their position in such disputes.

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At December 31, 2008 and 2007, Loss Reserves for our reinsurance operations by major line of business, net of unpaid losses and loss adjustment expenses recoverable, were as follows:

(U.S. dollars in thousands)	December 31,	
	2008	2007
Casualty	\$1,739,394	\$1,715,712
Property excluding property catastrophe	299,811	295,728
Other specialty.	163,099	212,088
Marine and aviation	238,959	167,290
Property catastrophe	145,211	111,084
Other	50,445	69,181
<b>Total net reserves</b>	<b>\$2,636,919</b>	<b>\$2,571,083</b>

The reserving method for our reinsurance operations to date has been, to a large extent, the expected loss method, which is commonly applied when limited loss experience exists. Over time, other common reserving methodologies have begun to be employed. Any estimates and assumptions made as part of the reserving process could prove to be inaccurate due to several factors, including the fact that relatively limited historical information has been reported to our reinsurance operations through December 31, 2008 in some lines of business. See below for a discussion of the key assumptions in our reinsurance operations' reserving process.

Although Loss Reserves are initially determined based on underwriting and pricing analysis, our reinsurance operations apply several generally accepted actuarial methods, as discussed above, on a quarterly basis to evaluate their Loss Reserves in addition to the expected loss method, in particular for Loss Reserves from more mature underwriting years (the year in which business is underwritten). Each quarter, as part of the reserving process, actuaries at our reinsurance operations reaffirm that the assumptions used in the reserving process continue to form a sound basis for projection of liabilities. If actual loss activity differs substantially from expectations based on historical information, an adjustment to loss reserves may be supported. Estimated Loss 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 more recent underwriting years continue to be mainly based on internal pricing assumptions. Our reinsurance operations place more or less reliance on a particular actuarial method based on the facts and circumstances at the time the estimates of Loss Reserves are made.

In the initial reserving process for medium-tail and long-tail lines, consisting of casualty, other specialty, marine and aviation and other exposures, our reinsurance operations primarily rely on the expected loss method. The development of medium-tail and long-tail business may be unstable, especially if there are high severity major events, with business written on an excess of loss basis typically having a longer tail than business written on a pro rata basis. As time passes, for a given underwriting year, additional weight is given to the paid and incurred B-F loss development methods and historical paid and incurred loss development methods in the reserving process. Our reinsurance operations make a number of key assumptions in reserving for medium-tail and long-tail lines, including that the pricing loss ratio is the best estimate of the ultimate loss ratio at the time the contract is entered into, historical paid and reported development patterns are stable and our reinsurance operations' claims personnel and underwriters analyses of our exposure to major events are assumed to be our best estimate of our exposure to the known claims on those events. The expected loss ratios used in our reinsurance operations' initial reserving process for medium-tail and long-tail contracts have varied over time due to changes in pricing, terms and conditions and reinsurance structure. As the credibility of historical experience for earlier underwriting years increases, the experience from these underwriting years will be used in the actuarial analysis to determine future underwriting year expected loss ratios, adjusted for changes in pricing, loss trends, terms and conditions and reinsurance structure.

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The process of estimating Loss Reserves for our reinsurance operations involves a considerable degree of judgment by management and, as of any given date, is inherently uncertain. The inherent uncertainties of estimating such reserves are even greater for reinsurers than for insurers due to the longer claim-tail for reinsurers, the reliance on premium estimates in the reserving process, the diversity and instability of loss development patterns, the necessary reliance on the ceding companies for information regarding reported claims and the differing reserving practices among ceding companies. In addition, as a result of the start up nature of our reinsurance operations in 2002 and 2003, the assumptions used in the initial loss estimates were subject to greater uncertainty than for an established company, especially for casualty reinsurance exposures (which have a longer claim-tail and involve a higher degree of judgment by management than short-tail lines). In the reserving process in 2002 and 2003, our reinsurance operations recognized that there is a possibility that the assumptions made could prove to be inaccurate due to the factors discussed above related to the start up nature of their operations in both periods.

In response to such factors, and their impact on the credibility of the initial loss estimates for casualty reinsurance exposures, a provision was included in establishing our reinsurance operations' net Loss Reserves in 2002 and 2003 on casualty losses occurring prior to each balance sheet date. As of December 31, 2003, the provision, included in IBNR, was \$49.0 million (or 5.0% of our reinsurance operations' net Loss Reserves). Due to the additional data our reinsurance operations had gained on its existing book of business by the end of 2003, it was determined that it was no longer necessary to continue to include a provision in the reserving process beginning in 2004. Based on the recommendation of an independent actuarial firm, our reinsurance operations adopted a methodology to evaluate the existing provision by comparing actual claims experience to a schedule of expected claims experience prepared by the independent actuarial firm. If the actual claims experience is in line with the expected claims experience, a reduction of the provision is made based on the schedule established in the review. For 2008, 2007 and 2006, following reviews of actual and expected claims experience, our reinsurance operations reduced the provision by \$2.7 million, \$10.6 million and \$7.7 million, respectively. At December 31, 2008, the remaining provision included in our reinsurance operations' Loss Reserves was \$8.6 million (or 0.3% of our reinsurance operations' net Loss Reserves), compared to \$11.3 million (or 0.4% of our reinsurance operations' net Loss Reserves) at December 31, 2007.

In the initial reserving process for short-tail lines, consisting of property excluding property catastrophe and property catastrophe exposures, our reinsurance operations rely on a combination of the reserving methods discussed above. For known catastrophic events, our reinsurance operations' reserving process also includes the usage of catastrophe models and a heavy reliance on analysis which includes ceding company inquiries and management judgment. The development of property losses may be unstable, especially where there is high catastrophic exposure, may be characterized by high severity, low frequency losses for excess and catastrophe-exposed business and may be highly correlated across contracts. As time passes, for a given underwriting year, additional weight is given to the paid and incurred B-F loss development methods and historical paid and incurred loss development methods in the reserving process. Our reinsurance operations make a number of key assumptions in reserving for short-tail lines, including that historical paid and reported development patterns are stable, catastrophe models provide useful information about our exposure to catastrophic events that have occurred and our underwriters' judgment and guidance received from ceding companies as to potential loss exposures may be relied on. The expected loss ratios used in the initial reserving process for our reinsurance operations' property exposures have varied over time due to changes in pricing, reinsurance structure, estimates of catastrophe losses, terms and conditions and geographical distribution. As losses in property lines are reported relatively quickly, expected loss ratios are selected for the current underwriting year incorporating the experience for earlier underwriting years, adjusted for rate changes, inflation, changes in reinsurance programs, expectations about present and future market conditions and expected attritional losses based on modeling. Due to the short-tail nature of property business,

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reported loss experience emerges quickly and ultimate losses are known in a reasonably short period of time.

For the years ended December 31, 2006 to 2008, on average, our reinsurance segment reported approximately \$157 million of estimated net favorable development in prior year Loss Reserves, or 6.5% of average beginning Loss Reserves. Of such amount, approximately \$91 million came from short-tail lines, or 13.2% of average beginning short-tail Loss Reserves, \$58 million came from long-tail lines, or 3.7% of average beginning long-tail Loss Reserves and \$8 million came from medium-tail lines, or 4.4% of average beginning medium-tail Loss Reserves. For the year ended December 31, 2008, estimated net favorable development in prior year Loss Reserves was \$231 million, or 9.0% of beginning Loss Reserves. Of such amount, approximately \$126 million came from short-tail lines, or 19.4% of beginning short-tail Loss Reserves, \$99 million came from long-tail lines, or 5.7% of beginning long-tail Loss Reserves and \$6 million came from medium-tail lines, or 3.6% of average beginning medium-tail Loss Reserves. For informational purposes, based on our reinsurance segment's historical results, applying the 6.5% average estimated net favorable development in average beginning Loss Reserves for the years ended December 31, 2006 to 2008 to our reinsurance segment's net Loss Reserves of \$2.64 billion at December 31, 2008 would result in an increase in income before income taxes of approximately \$171 million, or \$2.64 per diluted share, while using the 9.0% of estimated net favorable development in beginning Loss Reserves for the year ended December 31, 2008 to such Loss Reserves would result in an increase in income before income taxes of approximately \$237 million, or \$3.66 per diluted share. The amounts noted above are informational only and should not be considered projections of future events. Future favorable or adverse development in our reinsurance segment's Loss Reserves is subject to numerous factors, and no assurances can be given that we will experience favorable development in our Loss Reserves or that our ultimate losses will not be significantly different than the amounts shown above, and such differences could directly and significantly impact earnings favorably or unfavorably in the period they are determined. Because of our reinsurance segment's limited operating history, the sensitivity analysis above is one way to gauge the impact of changes in the assumptions in our reserving process. For another estimate of potential variability in our reinsurance segment's Loss Reserves, see " Simulation Results." Refer to " Results of Operations" for additional discussion on net favorable or adverse development of our reinsurance operations' prior year Loss Reserves.

***Simulation Results***

Generally, due to the insufficient amount of historical loss data for our insurance and reinsurance operations in many lines of business, we do not produce a range of estimates in calculating reserves. As described above, we primarily use the expected loss method to calculate our initial Loss Reserves, and such amounts represent management's best estimate of our ultimate liabilities. As the loss data has developed, other actuarial methods have been given more weight in our reserving process for certain lines of business. In order to illustrate the potential volatility in our Loss Reserves, we used a Monte Carlo simulation approach to simulate a range of results based on various probabilities. Both the probabilities and related modeling are subject to inherent uncertainties. The simulation relies on a significant number of assumptions, such as the potential for multiple entities to react similarly to external events, and includes other statistical assumptions.



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At December 31, 2008, our recorded Loss Reserves by operating segment, net of unpaid losses and loss adjustment expenses recoverable and the results of the simulation were as follows:

(U.S. dollars in thousands)	December 31, 2008		
	Insurance	Reinsurance	Total
Total net reserves	\$3,300,903	\$2,636,919	\$5,937,822
Simulation results:			
90th percentile(1)	\$3,939,308	\$3,420,576	\$7,096,546
10th percentile(2)	\$2,712,372	\$1,960,212	\$4,876,363

- (1) Simulation results indicate that a 90% probability exists that the net reserves for losses and loss adjustment expenses will not exceed the indicated amount.
- (2) Simulation results indicate that a 10% probability exists that the net reserves for losses and loss adjustment expenses will be at or below the indicated amount.

The simulation results shown for each segment do not add to the total simulation results, as the individual segment simulation results do not reflect the diversification effects across our segments. For informational purposes, based on the total simulation results, a change in our Loss Reserves to the amount indicated at the 90<sup>th</sup> percentile would result in a decrease in income before income taxes of approximately \$1.16 billion, or \$17.88 per diluted share, while a change in our Loss Reserves to the amount indicated at the 10<sup>th</sup> percentile would result in an increase in income before income taxes of approximately \$1.06 billion, or \$16.38 per diluted share. The simulation results noted above are informational only, and no assurance can be given that our ultimate losses will not be significantly different than the simulation results shown above, and such differences could directly and significantly impact earnings favorably or unfavorably in the period they are determined.

We do not have significant exposure to pre-2002 liabilities, such as asbestos-related illnesses and other long-tail liabilities and, to date, we have experienced a relatively low level of reported claims activity in many lines of business, particularly in longer-tailed lines such as primary and excess casualty and executive assurance, which have longer time periods during which claims are reported and paid. Our limited history does not provide meaningful trend information for such lines of business.

**Ceded Reinsurance**

In the normal course of business, our insurance operations cede a substantial portion of their premium through pro rata, excess of loss and facultative reinsurance agreements. Our reinsurance operations also obtain reinsurance whereby another reinsurer contractually agrees to indemnify it for all or a portion of the reinsurance risks underwritten by our reinsurance operations. Such arrangements, where one reinsurer provides reinsurance to another reinsurer, are usually referred to as "retrocessional reinsurance" arrangements. In addition, our 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 our reinsurance operations, and the ceding company. 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, our insurance or reinsurance operations would be liable for such defaulted amounts.

The availability and cost of reinsurance and retrocessional protection is subject to market conditions, which are beyond our control. Although we believe that our insurance and reinsurance operations have been successful in obtaining reinsurance and retrocessional protection, it is not certain that they will be able to continue to obtain adequate protection at cost effective levels. As a result of such market conditions and other factors, our insurance and reinsurance operations may not be able to successfully mitigate risk through reinsurance and retrocessional arrangements and may lead to increased volatility in our results of operations in future periods. See "Risk Factors Risks Relating to Our Industry The failure of any of the loss limitation methods we employ could have a material adverse effect on our financial condition or results of operations."

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Our insurance operations had in effect during 2008 a reinsurance program which provided coverage equal to a maximum of 70% of the first \$275 million in excess of a \$75 million retention per occurrence for certain property catastrophe-related losses occurring during 2008. During 2007, a reinsurance program was in effect which provided coverage equal to a maximum of 88% of the first \$325 million in excess of a \$75 million retention per occurrence for certain property catastrophe-related losses occurring during each period, compared to a maximum of 92% of the first \$325 million in excess of a \$75 million retention per occurrence during 2006. In the 2009 first quarter, our insurance operations renewed its reinsurance program which provides coverage for certain property-catastrophe related losses occurring during 2009 equal to a maximum of 80% of the first \$275 million in excess of a \$75 million retention per occurrence.

On December 29, 2005, Arch Reinsurance Ltd. ("Arch Re Bermuda") entered into a quota share reinsurance treaty with Flatiron Re Ltd. ("Flatiron"), a Bermuda reinsurance company, pursuant to which Flatiron assumed a 45% quota share (the "Flatiron Treaty") of certain lines of property and marine business underwritten by Arch Re Bermuda for unaffiliated third parties for the 2006 and 2007 underwriting years (January 1, 2006 to December 31, 2007). Effective June 28, 2006, the parties amended the Flatiron Treaty to increase the percentage ceded to Flatiron from 45% to 70% of all covered business bound by Arch Re Bermuda from (and including) June 28, 2006 until (and including) August 15, 2006, provided such business does not incept beyond September 30, 2006. The ceding percentage for all business bound outside of this period continued to be 45%.

Arch Re Bermuda pays to Flatiron a reinsurance premium in the amount of the ceded percentage of the original gross written premium on the business reinsured with Flatiron less a ceding commission, which includes a reimbursement of direct acquisition expenses as well as a commission to Arch Re Bermuda for generating the business. The Flatiron Treaty also provides for a profit commission to Arch Re Bermuda based on the underwriting results for the 2006 and 2007 underwriting years on a cumulative basis. Arch Re Bermuda records such profit commission based on underwriting experience recorded each quarter. As a result, the profit commission arrangement with Flatiron may increase the volatility of our reported results of operations on both a quarterly and annual basis. On December 31, 2007, the Flatiron Treaty expired by its terms. At December 31, 2008, \$18.3 million of premiums ceded to Flatiron were unearned.

During the period from May 2005 through April 2006, our reinsurance operations had in effect a catastrophe reinsurance program which provided up to \$55 million of coverage in excess of certain deductibles for any one occurrence and \$110 million in the aggregate annually, for certain catastrophe-related losses worldwide occurring during the period. The coverage was not renewed upon expiration. While our reinsurance operations may purchase industry loss warranty contracts and other reinsurance which is intended to limit their exposure, the non-renewal of the catastrophe reinsurance program and the Flatiron Treaty increases the risk retention of our reinsurance operations and, as a result, may increase the volatility in our results of operations in future periods.

**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 most of our insurance operations' lines of business. The amount of such insurance premium estimates included in premiums receivable and other assets at December 31, 2008 and 2007 was \$52.0 million and \$50.1 million, respectively. 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 our own estimates of premiums where reports have not been received or in cases where the amounts reported by brokers and ceding companies are adjusted to reflect management's

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best judgments and expectations. Premium estimates are derived from multiple sources which include our underwriters, the historical experience of the underlying business, similar business and available industry information. Premiums written are recorded based on the type of contracts we write. Premiums on our excess of loss and pro rata reinsurance contracts are estimated when the business is underwritten. For excess of loss contracts, the minimum premium, as defined in the contract, is generally recorded as an estimate of premiums written as of the inception date of the treaty. Estimates of premiums written under pro rata contracts are recorded in the period in which the underlying risks 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 our 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, as described above in " Reserves for Losses and Loss Adjustment Expenses."

The amount of reinsurance premium estimates included in premiums receivable and the amount of related acquisition expenses by type of business were as follows at December 31, 2008 and 2007:

(U.S. dollars in thousands)	December 31,					
	Gross Amount	2008 Acquisition Expenses	Net Amount	Gross Amount	2007 Acquisition Expenses	Net Amount
Casualty.	\$ 110,458	\$ (26,866)	\$ 83,592	\$ 171,876	\$ (47,127)	\$ 124,749
Property excluding property catastrophe	55,104	(14,056)	41,048	94,892	(23,918)	70,974
Marine and aviation	49,776	(13,200)	36,576	81,672	(22,492)	59,180
Other specialty	49,754	(14,648)	35,106	47,161	(11,185)	35,976
Property catastrophe	28,822	(4,947)	23,875	25,677	(4,346)	21,331
Other	1,110	(59)	1,051	1,157	(57)	1,100
<b>Total</b>	<b>\$ 295,024</b>	<b>\$ (73,776)</b>	<b>\$ 221,248</b>	<b>\$ 422,435</b>	<b>\$ (109,125)</b>	<b>\$ 313,310</b>

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. Based on currently available information, management believes that the premium estimates included in premiums receivable will be collectible and, therefore, no provision for doubtful accounts has been recorded on the premium estimates at December 31, 2008.

Reinsurance premiums assumed, 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.

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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.

Certain of our 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.

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, we bifurcate the prospective and retrospective elements of these reinsurance contracts and account 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.

Acquisition expenses and other expenses that vary with, and are directly related to, the acquisition of business in our underwriting operations are deferred and amortized over the period in which the related premiums are earned. Acquisition expenses, net of ceding commissions received from unaffiliated reinsurers, consist primarily of commissions, brokerage and taxes paid to obtain our 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.

**Collection of Insurance-Related Balances and Provision for Doubtful Accounts**

For purposes of managing risk, we reinsure a portion of our exposures, paying to reinsurers a part of the premiums received on the policies we write, and we may also use retrocessional protection. Ceded premiums written represented approximately 23.5% of gross premiums written for 2008, compared to 29.9% for 2007 and 29.5% for 2006.

The availability and cost of reinsurance and retrocessional protection is subject to market conditions, which are beyond our control. Although we believe that our insurance subsidiaries have been successful in obtaining reinsurance protection, it is not certain that we will be able to obtain adequate protection at cost effective levels. As a result of such market conditions and other factors, we may not be able to successfully mitigate risk through reinsurance and retrocessional arrangements. Further, we are subject to credit risk with respect to our reinsurers and retrocessionaires because the ceding of risk to reinsurers and retrocessionaires does not relieve us of our liability to the clients or companies we insure or reinsure. We are also subject to risks based upon the possibility that loss payments could occur earlier than the receipt of related reinsurance recoverables. Our failure to establish adequate reinsurance or retrocessional arrangements or the failure of our existing reinsurance or retrocessional arrangements to protect us from overly concentrated risk exposure could adversely affect our financial condition and results of operations.

We monitor the financial condition of our reinsurers and attempt to place coverages only with substantial, financially sound carriers. If the financial condition of our reinsurers or retrocessionaires deteriorates, resulting in an impairment of their ability to make payments, we will provide for probable losses resulting from our inability to collect amounts due from such parties, as appropriate. We evaluate the credit worthiness of all the reinsurers to which we cede business. If our analysis indicates that there is significant uncertainty regarding the collectability of amounts due from reinsurers, managing general agents, brokers and other clients, we will record a provision for doubtful accounts. See "Financial Condition, Liquidity and Capital Resources Financial Condition Premiums Receivable and Reinsurance Recoverables" for further details.

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We are also subject to credit risk from our alternative market products, such as rent-a-captive risk-sharing programs, which allow a client to retain a significant portion of its loss exposure without the administrative costs and capital commitment required to establish and operate its own captive. In certain of these programs, we participate in the operating results by providing excess reinsurance coverage and earn commissions and management fees. In addition, we write program business on a risk-sharing basis with managing general agents or brokers, which may be structured with commissions which are contingent on the underwriting results of the program. While we attempt to obtain collateral from such parties in an amount sufficient to guarantee their projected financial obligations to us, there is no guarantee that such collateral will be sufficient to secure their actual ultimate obligations.

**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 income tax asset may not be realized. We consider future taxable income and feasible tax planning strategies in assessing the need for a valuation allowance. In the event we determine that we will not be able to realize all or part of our 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 we subsequently assess that the valuation allowance is no longer needed, a benefit would be recorded to income in the period in which such determination is made.

We recognize a tax benefit where we conclude 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, we recognize a tax benefit measured at the largest amount of the tax benefit that, in our judgment, is greater than 50% likely to be realized. We record interest and penalties related to unrecognized tax benefits in the provision for income taxes.

**Investments**

We currently classify all of our fixed maturity investments, short-term investments and other investments as "available for sale" and, accordingly, they are carried at estimated market value. The market value of fixed maturity 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 our investment portfolios under the management of external and internal investment managers. Other investments are carried at estimated market value. Market value is initially considered to be equal to the cost of such investment until the investment is revalued based on substantive events or other factors which could indicate a diminution or appreciation in value.

Our investment portfolio includes certain funds that invest in fixed maturity securities which, due to their ownership structure, are accounted for by us using the equity method. In applying the equity method, these investments are initially recorded at cost and are subsequently adjusted based on our 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. 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 our 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 our reported results of operations.

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In accordance with SFAS No. 115, "Accounting for Certain Investments in Debt and Equity Securities," FASB Staff Position Nos. FAS 115-1 and FAS 124-1, "The Meaning of Other-Than-Temporary Impairment and Its Application to Certain Investments" and Securities and Exchange Commission Staff Accounting Bulletin No. 59, "Other-Than-Temporary Impairment of Certain Investments in Debt and Equity Securities," we review our investments each quarter to determine whether a decline in market value below the amortized cost basis is other-than-temporary. Our process for identifying declines in the market value of investments that are other-than-temporary involves consideration of several factors. These factors include (i) the time period in which there has been a significant decline in value, (ii) an analysis of the liquidity, business prospects and overall financial condition of the issuer, (iii) the significance of the decline and (iv) our intent and ability to hold the investment for a sufficient period of time for the value to recover. Where our analysis of the above factors results in the conclusion that declines in market values are other-than-temporary, the cost of the securities is written down to market value and is reflected as a realized loss. In periods subsequent to the recognition of an other-than-temporary impairment on fixed maturities, we account for such securities as if they had been purchased on the measurement date of the other-than-temporary impairment and the provision for other-than-temporary impairment (reflected as a discount or reduced premium based on the new cost basis) is amortized into net investment income over the remaining life of the fixed maturities, or until such securities are sold. See note 7, "Investment Information," of the notes accompanying our consolidated financial statements.

Under SFAS No. 133, "Accounting for Derivative Instruments and Hedging Activities" ("SFAS No. 133"), as amended on January 1, 2001, 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.

Our investment strategy allows for the use of derivative instruments. We utilize various derivative instruments such as futures contracts to enhance investment performance, replicate investment positions or manage market exposures and duration risk. Pursuant to SFAS No. 133, these instruments, which have no hedging designation, are recognized as assets and liabilities in our balance sheet at market value and changes in market value are included in net realized gains and losses in our results of operations. See note 7, "Investment Information Investment-Related Derivatives," of the notes accompanying our consolidated financial statements for more information about our use of derivative instruments.

**Share-Based Compensation**

On January 1, 2006, we adopted the fair value method of accounting for share-based awards using the modified prospective method of transition as described in Financial Accounting Standards Board ("FASB") Statement No. 123 (revised 2004), "Share-Based Payment" ("SFAS No. 123(R)"). Under the fair value method of accounting, 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. Such compensation cost is reduced by assumed forfeitures and adjusted based on actual forfeitures until vesting. Under the fair value method of accounting pursuant to SFAS No. 123(R), the fair value of restricted share and unit awards is measured by the grant date price of our shares. 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. Such expense is amortized over the requisite service period of the related awards. 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 cost at the grant date

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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. The share-based compensation expense associated with awards that have graded vesting features and vest based on service conditions only (i) granted after the effective date of adoption is calculated on a straight-line basis over the requisite service periods of the related awards and (ii) granted prior to the effective date of adoption and that remain unvested as of the date of adoption is calculated on a graded-vesting basis as prescribed under FASB Interpretation No. 28, "Accounting for Stock Appreciation Rights and Other Variable Stock Option or Award Plans" an interpretation of APB Opinions No. 15 and 25," over the remaining requisite service periods of the related awards.

Under SFAS No. 123(R), we use the Black-Scholes option pricing model to estimate the fair value of the share-based option awards as of the grant date. The Black-Scholes model, by its design, is highly complex, and requires judgment in determining key data inputs including estimating the risk free interest rate, expected life of the option and expected volatility rate. In addition, judgment is also required in estimating the amount of share-based awards that are expected to be forfeited. The primary data inputs with the greatest degree of judgment are the estimated lives of the share-based awards and the estimated volatility of our stock price. The Black-Scholes model is highly sensitive to changes in these two data inputs. In our process for estimating the fair value of stock options granted, we believe that we have made a good faith fair value estimate in accordance with the provisions of SFAS No. 123(R) as well as guidance from the SEC as contained in Staff Accounting Bulletin No. 107 in a way that is designed to take into account the assumptions that underlie the instrument's value that marketplace participants would reasonably make. If actual results differ significantly from these estimates, share-based compensation expense and our results of operations could be materially impacted.

See note 2(l), "Significant Accounting Policies Share-Based Compensation," and note 13, "Share Capital" of the notes accompanying our consolidated financial statements for more information about share-based compensation.

**Reclassifications**

We have reclassified the presentation of certain prior year information to conform to the current presentation. Such reclassifications had no effect on our net income, shareholders' equity or cash flows.

**Recent Accounting Pronouncements**

See note 2(p), "Significant Accounting Policies Recent Accounting Pronouncements," of the notes accompanying our consolidated financial statements.

**RESULTS OF OPERATIONS****Years Ended December 31, 2008 and 2007**

The following table sets forth net income available to common shareholders and earnings per common share data:

(U.S. dollars in thousands, except share data)	Years Ended December 31,	
	2008	2007
Net income available to common shareholders	\$ 265,122	\$ 832,099
Diluted net income per common share	4.09	\$ 11.28
Diluted weighted average common shares and common share equivalents outstanding	64,789,052	73,762,419

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Net income available to common shareholders was \$265.1 million for 2008, compared to \$832.1 million for 2007. The lower level of net income was due in part to a decrease in underwriting income from our insurance and reinsurance operations, as discussed in " Segment Information" below, and an increase in investment losses in the 2008 period, as discussed in " Equity in Net Income (Loss) of Investment Funds Accounted for Using the Equity Method" and " Net Realized Gains or Losses" below.

During 2008, we recorded estimated after-tax net losses of \$287.4 million, or \$4.44 per share, related to Hurricanes Gustav and Ike, after reinsurance recoveries and net of reinstatement premiums. Such estimates were based on currently available information derived from modeling techniques, industry assessments of exposure, preliminary claims information obtained from our clients and brokers and a review of our in-force contracts. Actual losses from these events may vary materially from our estimates due to the inherent uncertainties in making such determinations resulting from several factors, including the preliminary nature of the available information, 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 on claims activity and attendant coverage issues. In particular, the models used for offshore energy risks are relatively new and may be subject to even greater variability. In addition, actual losses may increase if our reinsurers fail to meet their obligations to us or the reinsurance protections purchased by us are exhausted or are otherwise unavailable.

Our net income available to common shareholders for 2008 represented a 7.8% annualized return on average common equity, compared to 23.9% for 2007. The decrease in diluted average shares outstanding from 2007 to 2008 was primarily due to the weighted impact of share repurchases, which reduced weighted average shares outstanding for 2008 by 12.9 million shares, compared to 3.3 million shares for 2007.

***Segment Information***

We determined our reportable operating segments using the management approach described in SFAS No. 131 "Disclosures about Segments of an Enterprise and Related Information," as further detailed in note 3, "Segment Information," of the notes accompanying our consolidated financial statements. Management measures segment performance based on underwriting income or loss, which includes the excess or deficiency of net premiums earned for each reporting period over the combined total of expenses and losses incurred during the same period.



Table of Contents*Insurance Segment*

The following table sets forth our insurance segment's underwriting results:

(U.S. dollars in thousands)	Years Ended December 31,	
	2008	2007
Gross premiums written	\$ 2,490,919	\$ 2,660,302
Net premiums written	1,657,603	1,717,548
Net premiums earned	\$ 1,675,089	\$ 1,702,343
Fee income	3,445	5,063
Losses and loss adjustment expenses	(1,194,528)	(1,077,769)
Acquisition expenses, net	(224,539)	(201,703)
Other operating expenses	(288,883)	(276,388)
Underwriting income (loss)	\$ (29,416)	\$ 151,546
<b>Underwriting Ratios</b>		
Loss ratio	71.3%	63.3%
Acquisition expense ratio(1)	13.2%	11.7%
Other operating expense ratio	17.2%	16.2%
Combined ratio	101.7%	91.2%

(1)

The acquisition expense ratio is adjusted to include certain fee income.

The insurance segment recorded an underwriting loss of \$29.4 million for 2008, compared to underwriting income of \$151.5 million for 2007. The combined ratio for the insurance segment was 101.7% for 2008, compared to 91.2% for 2007. During 2008, the insurance segment incurred estimated pre-tax net losses, after reinsurance and net of reinstatement premiums, related to Hurricanes Gustav and Ike of \$98.1 million. Before reinsurance, such estimated losses were \$214.3 million. The components of the insurance segment's underwriting results are discussed below.

*Premiums Written.* Gross premiums written by the insurance segment were \$2.49 billion for 2008, compared to \$2.66 billion for 2007, and ceded premiums written were 33.5% of gross premiums written for 2008, compared to 35.4% for 2007. Net premiums written by the insurance segment were \$1.66 billion for 2008, compared to \$1.72 billion for 2007. The insurance segment continued to maintain underwriting discipline in response to the current market environment with reductions across most specialty lines of business. For information regarding net premiums written by major line of business and geographic location, refer to note 3, "Segment Information," of the notes accompanying our consolidated financial statements.

*Net Premiums Earned.* Net premiums earned for the insurance segment were \$1.68 billion for 2008, compared to \$1.7 billion for 2007, and generally reflect changes in net premiums written over the previous five quarters, including the mix and type of business written.

*Losses and Loss Adjustment Expenses.* Insurance segment losses and loss adjustment expenses incurred for 2008 were \$1.19 billion, or 71.3% of net premiums earned, compared to \$1.08 billion, or 63.3% of net premiums earned, for 2007. The 2008 loss ratio reflected approximately 7.2 points related to catastrophic activity, primarily related to Hurricanes Gustav and Ike, while the 2007 loss ratio did not include any significant losses from catastrophic events. The 2008 loss ratio also reflected a 4.7 point reduction related to estimated net favorable development in prior year loss reserves, compared to a 0.7 point reduction in 2007. The insurance segment's net favorable development in 2008 was primarily due to reductions in reserves in medium-tailed and long-tailed lines of business which mainly resulted from better than expected claims emergence in older accident years.

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For a discussion of the reserves for losses and loss adjustment expenses, please refer to the section above entitled "Critical Accounting Policies, Estimates and Recent Accounting Pronouncements Reserves for Losses and Loss Adjustment Expenses."

*Underwriting Expenses.* The underwriting expense ratio for the insurance segment was 30.4% in 2008, compared to 27.9% for 2007. The acquisition expense ratio was 13.2% for 2008, compared to 11.7% for 2007. The acquisition expense ratio is influenced by, among other things, (1) the amount of ceding commissions received from unaffiliated reinsurers, (2) the amount of business written on a surplus lines (non-admitted) basis and (3) mix of business. The acquisition expense ratio in 2008 reflects changes in the form of reinsurance ceded and the mix of business and also included 0.9 points related to favorable prior year loss development, compared to 0.5 points for 2007. The insurance segment's other operating expense ratio was 17.2% for 2008, compared to 16.2% for 2007, with the increase due in part to a lower level of net premiums earned in 2008. In addition, operating expenses in 2008 included approximately \$12.3 million, or 0.7 points, related to workforce reductions and the relocation of certain of the insurance segment's U.S. operations. These actions were undertaken as part of an expense management plan, which includes office relocation and personnel and other expense saving initiatives.

*Reinsurance Segment*

The following table sets forth our reinsurance segment's underwriting results:

(U.S. dollars in thousands)	Years Ended December 31,	
	2008	2007
Gross premiums written	\$ 1,201,903	\$ 1,517,645
Net premiums written	1,148,123	1,184,388
Net premiums earned	\$ 1,170,365	\$ 1,242,307
Fee income	1,261	2,473
Losses and loss adjustment expenses	(654,216)	(566,401)
Acquisition expenses, net	(265,970)	(278,828)
Other operating expenses	(78,421)	(81,059)
Underwriting income	\$ 173,019	\$ 318,492
<b>Underwriting Ratios</b>		
Loss ratio	55.9%	45.6%
Acquisition expense ratio	22.7%	22.4%
Other operating expense ratio	6.7%	6.5%
Combined ratio	85.3%	74.5%

The reinsurance segment's underwriting income was \$173.0 million for 2008, compared to \$318.5 million for 2007. The combined ratio for the reinsurance segment was 85.3% for 2008, compared to 74.5% for 2007. During 2008, the reinsurance segment incurred estimated pre-tax net losses, after reinsurance and net of reinstatement premiums, related to Hurricanes Gustav and Ike of \$197.4 million. Before reinsurance, such estimated losses were \$221.5 million. The components of the reinsurance segment's underwriting results are discussed below.

*Premiums Written.* Gross premiums written by the reinsurance segment were \$1.2 billion in 2008, compared to \$1.52 billion for 2007. Commencing in 2006, Arch Re Bermuda ceded certain lines of property and marine premiums written under a quota share reinsurance treaty (the "Treaty") to Flatiron. Under the Treaty, Flatiron assumed a 45% quota share of certain lines of property and marine business underwritten by Arch Re Bermuda for the 2006 and 2007 underwriting years (the percentage ceded was increased from 45% to 70% of covered business bound from June 28, 2006 until

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August 15, 2006 provided such business did not incept beyond September 30, 2006). On December 31, 2007, the Treaty expired by its terms. For its January 1, 2008 renewals, Arch Re Bermuda adjusted its book of business in light of the expiration of the Treaty and 2008 writings in certain property and marine lines were reduced accordingly. Other reductions in the reinsurance segment's book of business resulted from continued competition which led to non-renewals or lower shares written, partially offset by an increase in writings by the reinsurance segment's property facultative operation.

Ceded premiums written by the reinsurance segment were 4.5% of gross premiums written for 2008, compared to 22.0% for 2007. In 2008, Arch Re Bermuda ceded \$24.7 million of premiums written, or 2.1%, under the Treaty to Flatiron (\$151.4 million on an earned basis), compared to \$311.4 million, or 20.5%, in 2007 (\$282.2 million on an earned basis), with the lower level due to the expiration of the Treaty. At December 31, 2008, \$18.3 million of premiums ceded to Flatiron were unearned.

Net premiums written by the reinsurance segment were \$1.15 billion for 2008, compared to \$1.18 billion for 2007. Net premiums written for 2008 reflects a lower level of casualty business, which more than offset growth in property lines, including the reinsurance segment's property facultative operation. In general, the reinsurance segment is retaining a higher portion of its property and marine business in 2008 than in prior periods. For information regarding net premiums written by major line and type of business and geographic location, refer to note 3, "Segment Information," of the notes accompanying our consolidated financial statements.

*Net Premiums Earned.* Net premiums earned for our reinsurance segment were \$1.17 billion for 2008, compared to \$1.24 billion for 2007, and generally reflect changes in net premiums written over the previous five quarters, including the mix and type of business written.

*Losses and Loss Adjustment Expenses.* Reinsurance segment losses and loss adjustment expenses incurred for 2008 were \$654.2 million, or 55.9% of net premiums earned, compared to \$566.4 million, or 45.6% of net premiums earned, for 2007. The 2008 loss ratio reflected approximately 19.6 points of catastrophic activity, primarily related to Hurricanes Gustav and Ike, while the 2007 loss ratio reflected approximately 4.3 points of catastrophic activity. The 2008 loss ratio also reflected a 19.8 point reduction related to estimated net favorable development in prior year loss reserves, compared to a 13.9 point reduction in the 2007 period. The estimated net favorable development in 2008 was in short-tail and long-tail lines and resulted from better than anticipated claims emergence. The reinsurance segment's loss ratio in 2008 also reflected changes in the mix of business and an increase in expected loss ratios across a number of lines of business primarily due to rate changes.

In its reserving process in 2002 and 2003, the reinsurance segment recognized that there is a possibility that the assumptions made could prove to be inaccurate due to several factors primarily related to the start up nature of its operations. Due to the availability of additional data, and based on reserve analyses, it was determined that it was no longer necessary to continue to include such factors in the reserving process in 2004. Following reserve reviews, and based on the level of claims activity reported to date, the reinsurance segment has reduced the amount it had recorded in 2002 and 2003 by \$2.7 million in 2008 and \$10.6 million in 2007. Such amounts are reflected in the prior year development indicated above.

The net favorable development on prior year loss reserves in both periods was partially offset by increased acquisition expenses which resulted in an increase to the acquisition expense ratio of approximately 0.9 points in 2008, compared to 1.5 points in 2007.

For a discussion of the reserves for losses and loss adjustment expenses, please refer to the section above entitled "Critical Accounting Policies, Estimates and Recent Accounting Pronouncements Reserves for Losses and Loss Adjustment Expenses."

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*Underwriting Expenses.* The underwriting expense ratio for the reinsurance segment was 29.4% for 2008, compared to 28.9% for 2007. The acquisition expense ratio for 2008 was 22.7%, compared to 22.4% for 2007. The acquisition expense ratio is influenced by, among other things, the mix and type of business written and earned and the level of ceding commission income. The acquisition expense ratio for 2008 included 0.9 points related to favorable prior year loss development, compared to 1.5 points in 2007. In addition, the reinsurance segment's results included commission income (in excess of the reimbursement of direct acquisition expenses) on the quota-share reinsurance treaty with Flatiron, which reduced the acquisition expense ratio by 2.0 points in 2008, compared to 3.1 points in 2007. The reinsurance segment's other operating expense ratio was 6.7% for 2008, compared to 6.5% for 2007. The higher ratio in 2008 primarily resulted from a lower level of net premiums earned.

***Net Investment Income***

Net investment income was \$468.1 million for 2008, compared to \$463.2 million for 2007. The increase in net investment income in 2008 primarily resulted from a higher level of average invested assets primarily generated by cash flows from operations, partially offset by share repurchase activity during 2008 and a decrease in the pre-tax investment income yield to 4.73% for 2008 from 4.97% for 2007. These yields were calculated based on amortized cost. The decrease in the pre-tax investment yield primarily resulted from the prevailing interest rate environment. Yields on future investment income may vary based on financial market conditions, investment allocation decisions and other factors.

***Equity in Net Income (Loss) of Investment Funds Accounted for Using the Equity Method***

Equity in net loss of investment funds accounted for using the equity method was \$178.6 million for 2008, compared to \$0.2 million for 2007. We record such investments on a one month or three month lag. The 2008 amount primarily related to our investments in U.S. and Euro-denominated bank loan funds and resulted from the extreme volatility in the capital and credit markets during September to November 2008 as the market values of the secured loans underlying the holdings in such funds declined significantly.

***Net Realized Gains or Losses***

Following is a summary of net realized gains (losses):

(U.S. dollars in thousands)	Years Ended December 31,	
	2008	2007
Fixed maturities	\$(173,165)	\$ 38,611
Other investments	(35,829)	847
Other(1)	23,893	(11,317)
Total	\$(185,101)	\$ 28,141

(1)

Includes net realized gains or losses from derivatives, futures contracts and other items.

Total return on our portfolio under management for 2008 was a negative 2.84%, compared to a positive 6.52% for 2007. Total return is calculated on a pre-tax basis and before investment expenses. The lower total return in 2008 compared to 2007 was primarily due to the widening credit spreads which occurred during the last half of 2008, along with the impact of foreign exchange rate changes. For 2008, net realized losses on our fixed maturities of \$173.2 million included a provision of \$155.4 million for declines in the market value of investments held in our available for sale portfolio which were considered to be other-than-temporary, based on reviews performed during 2008. Such amount included \$22.8 million of write downs on our holdings in fixed income securities issued by

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Lehman Brothers Holdings Inc. In addition, we recorded a provision of \$25.8 million for declines in the market value of fixed income mutual funds included in 'other investments' which were considered to be other-than-temporary, based on reviews of the expected recovery value of the funds' underlying holdings performed during 2008. For 2007, net realized gains on our fixed maturities of \$38.6 million included a provision of \$28.1 million for declines in the market value of investments held in our available for sale portfolio which were considered to be other-than-temporary, based on reviews performed during 2007. In addition, we recorded a provision of \$2.1 million for declines in the market value of fixed income mutual funds included in 'other investments' which were considered to be other-than-temporary, based on reviews performed during 2007. In periods subsequent to the recognition of an other-than-temporary impairment on fixed maturities, we account for such securities as if they had been purchased on the measurement date of the other-than temporary impairment and the provision for the other-than-temporary impairment (reflected as a discount or reduced premium based on the new cost basis) is amortized into net investment income over the remaining life of the fixed maturities, or until such securities are sold. The declines in market value on such securities were primarily due to the prevailing interest rate, credit and foreign exchange environments. The balance of net realized gains on our fixed maturities in 2008 and 2007 resulted from the sale of securities. For the 2008 and 2007 periods, net realized gains or losses from the sale of fixed maturities primarily resulted from our decisions to reduce credit exposure, changes in duration targets, relative value determinations and sales related to rebalancing the portfolio.

***Other Expenses***

Other expenses, which are included in our other operating expenses and part of our corporate and other segment (non-underwriting), were \$28.5 million for 2008, compared to \$30.7 million for 2007. Such amounts primarily represent certain holding company costs necessary to support our worldwide insurance and reinsurance operations, share based compensation expense and costs associated with operating as a publicly traded company.

***Net Foreign Exchange Gains or Losses***

Net foreign exchange gains for 2008 of \$96.6 million consisted of net unrealized gains of \$97.4 million and net realized losses of \$0.8 million, compared to net foreign exchange losses of \$44.0 million for 2007, which consisted of net unrealized losses of \$48.8 million and net realized gains of \$4.8 million. For the 2008 and 2007 periods, the net unrealized foreign exchange gains or losses recorded were largely offset by changes in the value of our investments held in foreign currencies. Net unrealized foreign exchange gains or losses result from the effects of revaluing our net insurance liabilities required to be settled in foreign currencies at each balance sheet date. The net foreign exchange gains in 2008 primarily resulted from a strengthening of the U.S. Dollar against the British Pound and Euro. We hold investments in foreign currencies which are intended to mitigate our exposure to foreign currency fluctuations in our net insurance liabilities. However, changes in the value of such investments due to foreign currency rate movements are reflected as a direct increase or decrease to shareholders' equity and are not included in the statement of income.

***Income Taxes***

ACGL changed its legal domicile from the United States to Bermuda in November 2000. Under current Bermuda law, we are not obligated to pay any taxes in Bermuda based upon income or capital gains. We have received a written undertaking from the Minister of Finance in Bermuda under the Exempted Undertakings Tax Protection Act of 1966 that in the event legislation is enacted in Bermuda imposing tax computed on profits, income, gain or appreciation on any capital asset, or tax in the nature of estate duty or inheritance tax, such tax will not be applicable to us or our operations until March 28, 2016.

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ACGL will be subject to U.S. federal income tax only to the extent that it derives 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. ACGL will be subject to a withholding tax on dividends from U.S. investments and interest from certain U.S. taxpayers. ACGL does not consider itself to be engaged in a trade or business within the U.S. and, consequently, does not expect to be subject to direct U.S. income taxation. 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 ACGL or its non-U.S. subsidiaries are engaged in a trade or business in the United States. If ACGL or any of its non-U.S. subsidiaries were subject to U.S. income tax, ACGL's shareholders' equity and earnings could be materially adversely affected. ACGL 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 ACGL's subsidiaries and branches are subject to tax are the United States, United Kingdom, Ireland, Canada, Switzerland, Germany and Denmark. See "Risk Factors Risks Relating to Taxation" and "Business Tax Matters."

The income tax provision on income before income taxes resulted in an effective tax rate of 4.4% for 2008, compared to 1.8% for 2007. Our effective tax rate fluctuates from year to year consistent with the relative mix of income reported by jurisdiction due primarily to the varying tax rates in each jurisdiction. We currently estimate that our comparable income tax provision in 2009 will result in an effective tax rate of approximately 2.5% to 4.5%, although no assurances can be given to that effect. See note 9, "Income Taxes," of the notes accompanying our consolidated financial statements for a reconciliation of the difference between the provision for income taxes and the expected tax provision at the weighted average statutory tax rate for 2008, 2007 and 2006.

**Years Ended December 31, 2007 and 2006**

The following table sets forth net income available to common shareholders and earnings per common share data:

(U.S. dollars in thousands, except share data)	Years Ended December 31,	
	2007	2006
Net income available to common shareholders	\$ 832,099	\$ 692,559
Diluted net income per common share	\$ 11.28	\$ 9.08
Diluted weighted average common shares and common share equivalents outstanding	73,762,419	76,246,725

Net income available to common shareholders was \$832.1 million for 2007, compared to \$692.6 million for 2006. The improvement in our results of operations was primarily due to growth in investment income and a low level of catastrophic activity, as discussed in " Segment Information" below. Our net income available to common shareholders for 2007 represented a 23.9% annualized return on average common equity, compared to 24.1% for 2006.

The decrease in diluted average shares outstanding from 2006 to 2007 was primarily due to the weighted impact of share repurchases during 2007, partially offset by increases in the dilutive effects of stock options and nonvested restricted stock calculated using the treasury stock method and the exercise of stock options. Under the treasury stock method, the dilutive impact of options and nonvested stock on diluted weighted average shares outstanding increases as the market price of our common shares increases.

Table of Contents**Segment Information***Insurance Segment*

The following table sets forth our insurance segment's underwriting results:

(U.S. dollars in thousands)	Years Ended December 31,	
	2007	2006
Gross premiums written	\$ 2,660,302	\$ 2,624,757
Net premiums written	1,717,548	1,652,056
Net premiums earned	\$ 1,702,343	\$ 1,600,854
Fee income	5,063	5,085
Losses and loss adjustment expenses	(1,077,769)	(1,017,263)
Acquisition expenses, net	(201,703)	(175,740)
Other operating expenses	(276,388)	(249,637)
Underwriting income	\$ 151,546	\$ 163,299
<b>Underwriting Ratios</b>		
Loss ratio	63.3%	63.5%
Acquisition expense ratio(1)	11.7%	10.8%
Other operating expense ratio	16.2%	15.6%
Combined ratio	91.2%	89.9%

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(1)

The acquisition expense ratio is adjusted to include certain fee income.

The insurance segment's underwriting income was \$151.5 million for 2007, compared to \$163.3 million for 2006. The combined ratio for the insurance segment was 91.2% for 2007, compared to 89.9% for 2006. The components of the insurance segment's underwriting income are discussed below.

*Premiums Written.* Gross premiums written by the insurance segment were \$2.66 billion for 2007, compared to \$2.62 billion for 2006, and ceded premiums written were 35.4% of gross premiums written for 2007, compared to 37.1% for 2006. Net premiums written by the insurance segment were \$1.72 billion for 2007, compared to \$1.65 billion for 2006. Contributing to the higher level of net premiums written in 2007 were increases in professional liability business, as a result of growth in policies written, a higher level of travel and accident business and a decrease in the usage of reinsurance, national accounts casualty business and excess workers' compensation and employers' liability business (included in 'other'). This growth was partially offset by a continued reduction in U.S. primary casualty business and surety business in response to increasing competition and market conditions. For information regarding net premiums written by major line of business and geographic location, refer to note 3, "Segment Information," of the notes accompanying our consolidated financial statements.

*Net Premiums Earned.* Net premiums earned for the insurance segment were \$1.7 billion for 2007, compared to \$1.6 billion for 2006, and generally reflect changes in net premiums written over the previous five quarters, including the mix and type of business written.

*Losses and Loss Adjustment Expenses.* Insurance segment losses and loss adjustment expenses incurred for 2007 were \$1.08 billion, or 63.3% of net premiums earned, compared to \$1.02 billion, or 63.5% of net premiums earned, for 2006. The 2007 loss ratio reflected a 0.7 point reduction related to estimated net favorable development in prior year loss reserves, compared to a 0.5 point reduction in 2006. Prior to 2005, the insurance segment's reserving method relied heavily on industry data. In 2005,

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the insurance segment began to give a relatively small amount of weight to its own experience. As a result, the insurance segment reduced loss selections for some lines, in particular those written on a claims-made basis and for which it now believes it has a reasonable level of credible data. The insurance segment's net favorable development in 2007 and 2006 was primarily due to reductions in reserves in medium-tailed and long-tailed lines of business resulting from such changes, partially offset by adverse development of \$33.3 million from short-tail lines which primarily resulted from higher than expected claims development. The net favorable development was partially offset by an increase in acquisition expenses of \$9.5 million, primarily due to sliding scale arrangements on certain policies.

For a discussion of the reserves for losses and loss adjustment expenses, please refer to the section above entitled "Critical Accounting Policies, Estimates and Recent Accounting Pronouncements Reserves for Losses and Loss Adjustment Expenses."

*Underwriting Expenses.* The underwriting expense ratio for the insurance segment was 27.9% in 2007, compared to 26.4% for 2006. The acquisition expense ratio is influenced by, among other things, (1) the amount of ceding commissions received from unaffiliated reinsurers, (2) the amount of business written on a surplus lines (non-admitted) basis and (3) mix of business. The acquisition expense ratio was 11.7% for 2007, compared to 10.8% for 2006. The acquisition expense ratio in 2007 reflects changes in the form of reinsurance ceded and the mix of business and also included 0.5 points related to favorable prior year loss development, while the 2006 period included a decrease in surety profit commissions which increased the 2006 acquisition expense ratio by 0.5 points. The insurance segment's other operating expense ratio was 16.2% for 2007, compared to 15.6% for 2006. The higher operating expense ratio in 2007 compared to 2006 was primarily due to growth in compensation-related expenses without an attendant growth in net premiums earned.

*Reinsurance Segment*

The following table sets forth our reinsurance segment's underwriting results:

(U.S. dollars in thousands)	Years Ended December 31,	
	2007	2006
Gross premiums written	\$ 1,517,645	\$ 1,703,796
Net premiums written	1,184,388	1,365,362
Net premiums earned	\$ 1,242,307	\$ 1,480,811
Fee income	2,473	4,729
Losses and loss adjustment expenses	(566,401)	(773,286)
Acquisition expenses, net	(278,828)	(368,171)
Other operating expenses	(81,059)	(53,533)
Underwriting income	\$ 318,492	\$ 290,550
<b>Underwriting Ratios</b>		
Loss ratio	45.6%	52.2%
Acquisition expense ratio	22.4%	24.9%
Other operating expense ratio	6.5%	3.6%
Combined ratio	74.5%	80.7%

The reinsurance segment's underwriting income was \$318.5 million for 2007, compared to \$290.6 million for 2006. The combined ratio for the reinsurance segment was 74.5% for 2007, compared to 80.7% for 2006. The components of the reinsurance segment's underwriting income are discussed below.



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*Premiums Written.* Gross premiums written by the reinsurance segment were \$1.52 billion in 2007, compared to \$1.7 billion for 2006. Gross premiums written for 2007 reflects a lower level of casualty, other specialty and non-catastrophe exposed property business which was in response to continued competition and resulted in either non-renewals or lower shares written by the reinsurance segment. Such reductions were partially offset by continued growth in international property and marine lines, due to higher rates and an increase in exposure.

Ceded premiums written by the reinsurance segment were 22.0% of gross premiums written for 2007, compared to 19.9% for 2006. The higher ceded percentage in 2007 primarily resulted from the \$311.4 million of premiums written ceded by Arch Re Bermuda to Flatiron (\$282.2 million on an earned basis), compared to \$273.2 million in 2006 (\$157.4 million on an earned basis).

Net premiums written by the reinsurance segment were \$1.18 billion for 2007, compared to \$1.37 billion for 2006. Net premiums written for 2007 reflects the lower level of international casualty business noted above, which more than offset growth in international property and marine lines, net of the amounts ceded to Flatiron For information regarding net premiums written by major line and type of business and geographic location, refer to note 3, "Segment Information," of the notes accompanying our consolidated financial statements.

*Net Premiums Earned.* Net premiums earned for our reinsurance segment were \$1.24 billion for 2007, compared to \$1.48 billion for 2006, and generally reflect changes in net premiums written over the previous five quarters, including the mix and type of business written.

*Losses and Loss Adjustment Expenses.* Reinsurance segment losses and loss adjustment expenses incurred for 2007 were \$566.4 million, or 45.6% of net premiums earned, compared to \$773.3 million, or 52.2% of net premiums earned, for 2006. The 2007 loss ratio reflected a 13.9 point reduction related to estimated net favorable development in prior year loss reserves, compared to a 4.6 point reduction in 2006. Of the 2007 net favorable development in the reinsurance segment, a significant portion came from short-tail lines and resulted from better than anticipated loss emergence. In addition, the reinsurance segment's 2007 results included approximately 4.3 points related to 2007 catastrophe losses, while the 2006 results included 3.1 points related to 2006 catastrophe losses. The reinsurance segment's 2007 loss ratio also reflects an increase in expected loss ratios across a number of lines of business, primarily due to premium rate decreases and loss cost trends, and changes in the mix of business.

In its reserving process in 2002 and 2003, the reinsurance segment recognized that there is a possibility that the assumptions made could prove to be inaccurate due to several factors primarily related to the start up nature of its operations. Due to the availability of additional data, and based on reserve analyses, it was determined that it was no longer necessary to continue to include such factors in the reserving process in 2004. Following reserve reviews, and based on the level of claims activity reported to date, the reinsurance segment has reduced the amount it had recorded in 2002 and 2003 by \$10.6 million in 2007 and \$7.7 million in 2006. Such amounts are reflected in the prior year development indicated above.

The net favorable development on prior year loss reserves in both periods was partially offset by increased acquisition expenses which resulted in an increase to the acquisition expense ratio of approximately 1.5 points in 2007, compared to 0.5 points in 2006. The remainder of the change in the loss ratio for 2007, compared to 2006, resulted from better results recorded in the reinsurance segment's property lines of business and changes in their mix of business.

For a discussion of the reserves for losses and loss adjustment expenses, please refer to the section above entitled "Critical Accounting Policies, Estimates and Recent Accounting Pronouncements Reserves for Losses and Loss Adjustment Expenses."

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**Underwriting Expenses.** The underwriting expense ratio for the reinsurance segment was 28.9% for 2007, compared to 28.5% for 2006. The acquisition expense ratio for 2007 was 22.4%, compared to 24.9% for 2006. The acquisition expense ratio is influenced by, among other things, the mix and type of business written and earned and the level of ceding commission income. The acquisition expense ratio for 2007 included 1.5 points related to favorable prior year loss development, compared to 0.5 points in 2006. In addition, the reinsurance segment's results included commission income (in excess of the reimbursement of direct acquisition expenses) on the quota-share reinsurance treaty with Flatiron, which reduced the acquisition expense ratio by 3.1 points in 2007, compared to 1.6 points in 2006. The reinsurance segment's other operating expense ratio was 6.5% for 2007, compared to 3.6% for 2006. The higher ratio in 2007 primarily resulted from expenses related to the reinsurance segment's property facultative reinsurance operation, which commenced operations during the 2007 second quarter, and a lower level of net premiums earned.

**Net Investment Income**

Net investment income was \$463.1 million for 2007, compared to \$377.5 million for 2006. The increase in net investment income in 2007 resulted from a higher level of average invested assets primarily generated by cash flows from operations. In addition, an increase in the pre-tax investment income yield to 4.97% for 2007 from 4.69% for 2006 contributed to the growth in net investment income. These yields were calculated based on amortized cost. The increase in the pre-tax investment yield primarily resulted from higher interest rates embedded in the investment portfolio.

**Net Realized Gains or Losses**

Following is a summary of net realized gains (losses):

(U.S. dollars in thousands)	Years Ended December 31,	
	2007	2006
Fixed maturities	\$ 38,611	\$(27,379)
Other investments	847	4,186
Other(1)	(11,317)	3,756
Total	\$ 28,141	\$(19,437)

(1)

Includes net realized gains or losses from derivatives, futures contracts and other items.

Total return on our portfolio under management for 2007 was 6.52%, compared to 5.24% for 2006. Total return is calculated on a pre-tax basis and before investment expenses. The higher total return in 2007 compared to 2006 was primarily due to movements in interest rates and foreign exchange rates during the periods. For 2007, net realized gains on our fixed maturities of \$38.6 million included a provision of \$28.1 million for declines in the market value of investments held in our available for sale portfolio which were considered to be other-than-temporary, based on reviews performed during 2007. For 2006, net realized losses on our fixed maturities of \$27.4 million included a provision of \$31.6 million for declines in the market value of investments held in our available for sale portfolio which were considered to be other-than-temporary, based on reviews performed during 2006. The declines in market value on such securities were primarily due to the prevailing interest rate, credit and foreign exchange environments. The balance of net realized gains on our fixed maturities in 2007 and 2006 resulted from the sale of securities. For the 2007 and 2006 periods, net realized gains or losses from the sale of fixed maturities primarily resulted from our decisions to reduce credit exposure, changes in duration targets, relative value determinations and sales related to rebalancing the portfolio.

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***Other Expenses***

Other expenses, which are included in our other operating expenses and part of our corporate and other segment (non-underwriting), were \$30.7 million for 2007, compared to \$29.1 million for 2006. Such amounts primarily represent certain holding company costs necessary to support our worldwide insurance and reinsurance operations, share based compensation expense and costs associated with operating as a publicly traded company.

***Net Foreign Exchange Gains or Losses***

Net foreign exchange losses for 2007 of \$44.0 million consisted of net unrealized losses of \$48.8 million and net realized gains of \$4.8 million, compared to net foreign exchange losses of \$23.9 million for 2006, which consisted of net unrealized losses of \$27.3 million and net realized gains of \$3.4 million. For the 2007 and 2006 periods, the net unrealized foreign exchange gains or losses recorded were largely offset by changes in the value of our investments held in foreign currencies. The net foreign exchange losses in 2007 and 2006 primarily resulted from a weakening of the U.S. Dollar. For the 2007 and 2006 periods, the net unrealized foreign exchange gains or losses recorded by us were largely offset by changes in the value of our investments held in foreign currencies.

***Income Taxes***

The income tax provision on income before income taxes resulted in an effective tax rate of 1.8% for 2007, compared to 3.6% for 2006. Our effective tax rate fluctuates from year to year consistent with the relative mix of income reported by jurisdiction due primarily to the varying tax rates in each jurisdiction.

**FINANCIAL CONDITION, LIQUIDITY AND CAPITAL RESOURCES**

**Financial Condition**

***Investable Assets***

The finance and investment committee of our board of directors establishes our investment policies and sets the parameters for creating guidelines for our investment managers. The finance and investment committee reviews the implementation of the investment strategy on a regular basis. Our current approach stresses preservation of capital, market liquidity and diversification of risk. While maintaining our emphasis on preservation of capital and liquidity, we expect our portfolio to become more diversified and, as a result, we may expand into areas which are not currently part of our investment strategy. Our Chief Investment Officer administers the investment portfolio, oversees our investment managers, formulates investment strategy in conjunction with our finance and investment committee and directly manages certain portions of our fixed income portfolio.

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On a consolidated basis, our aggregate investable assets totaled \$9.97 billion at December 31, 2008, compared to \$10.12 billion at December 31, 2007, as detailed in the table below:

	December 31,	
	2008	2007
Fixed maturities available for sale, at market value	\$8,122,221	\$ 7,137,998
Fixed maturities pledged under securities lending agreements, at market value(1)	626,501	1,462,826
<b>Total fixed maturities</b>	<b>8,748,722</b>	<b>8,600,824</b>
Short-term investments available for sale, at market value	479,586	699,036
Short-term investments pledged under securities lending agreements, at market value(1)	101,564	219
Cash	251,739	239,915
<b>Other investments:</b>		
Fixed income mutual funds	39,858	194,090
International equity index funds		92,056
Privately held securities and other	69,743	67,548
Investment funds accounted for using the equity method	301,027	235,975
<b>Total cash and investments(1)</b>	<b>9,992,239</b>	<b>10,129,663</b>
Securities transactions entered into but not settled at the balance sheet date	(18,236)	(5,796)
<b>Total investable assets</b>	<b>\$9,974,003</b>	<b>\$10,123,867</b>

(1)

In our securities lending transactions, we receive 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, we have excluded the investment of collateral received at December 31, 2008 and December 31, 2007 of \$730.2 million and \$1.5 billion, respectively, which is reflected as "investment of funds received under securities lending agreements, at market value" and included the \$728.1 million and \$1.46 billion, respectively, of "fixed maturities and short-term investments pledged under securities lending agreements, at market value."

At December 31, 2008, our fixed income portfolio, which includes fixed maturity securities and short-term investments, had a "AA+" average credit quality rating, an average effective duration of 3.62 years, and an average yield to maturity (imbedded book yield), before investment expenses, of 4.55%. At December 31, 2007, our fixed income portfolio had a "AA+" average credit quality rating, an average effective duration of 3.29 years, and an average yield to maturity (imbedded book yield), before investment expenses, of 5.03%. At December 31, 2008, approximately \$5.3 billion, or 52.2%, of total investable assets was internally managed, compared to \$4.61 billion, or 45.5%, at December 31, 2007. Our fixed maturities at December 31, 2008 included exposures to certain corporate sectors, such as the financial sector (11% of total investable assets) and the industrial sector (6% of total investable assets).

At December 31, 2008 and 2007, the weighted average contractual maturities of our total fixed maturity and short-term investments, based on market value, were 12.0 years and 12.0 years, respectively, while the weighted average expected maturities of our total fixed maturity and short-term investments, based on market value, were 4.2 years and 4.6 years, respectively. There were no investments in any entity in excess of 10% of our shareholders' equity at December 31, 2008 or 2007 other than investments issued or guaranteed by the United States government or its agencies.

As a result of recent financial market disruption, which has included a lack of liquidity in the credit markets and a widening of credit spreads on fixed maturities, the market value of our investment portfolio at December 31, 2008 was lower than in prior periods.

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The distribution of our fixed maturities and fixed maturities pledged under securities lending agreements by type is shown below:

	December 31, 2008		December 31, 2007	
	Estimated Market Value	Net Unrealized Gains (Losses)	Estimated Market Value	Net Unrealized Gains (Losses)
Corporate bonds	\$2,019,373	\$ (47,848)	\$2,452,527	\$ 29,302
Mortgage backed securities	1,581,736	(102,453)	1,234,596	10,124
Commercial mortgage backed securities	1,219,737	(52,084)	1,315,680	16,781
U.S. government and government agencies	1,463,897	63,603	1,165,423	21,151
Municipal bonds	965,966	25,085	990,325	13,018
Asset backed securities	970,041	(69,641)	1,008,030	5,478
Non-U.S. government securities	527,972	1,806	434,243	24,976
Total	\$8,748,722	\$ (181,532)	\$8,600,824	\$ 120,830

At December 31, 2008, we had the ability and intent to hold fixed maturities which were in an unrealized loss position until recovery. During 2008, pre-tax net realized losses on our investment portfolio were \$185.1 million, which reflected \$181.2 million of other-than-temporary impairment charges, including \$22.8 million of write downs on our holdings in fixed income securities issued by Lehman Brothers Holdings Inc. During the second half of 2008, credit spreads significantly widened, which led to significant unrealized losses on our investment portfolio. See "Risk Factors Risks Relating to Our Company Our investment performance may affect our financial results and ability to conduct business."

The credit quality distribution of our fixed maturities and fixed maturities pledged under securities lending agreements is shown below. Approximately 97% of the fixed maturities and fixed maturities pledged under securities lending agreements held by us were rated investment grade by the major rating agencies at December 31, 2008, compared to 98% at December 31, 2007.

Rating(1)	December 31, 2008		December 31, 2007	
	Estimated Market Value	% of Total	Estimated Market Value	% of Total
AAA	\$6,756,503	77.2	\$6,600,258	76.7
AA	815,512	9.3	882,262	10.3
A	750,947	8.6	677,047	7.9
BBB	195,319	2.2	243,610	2.8
BB	52,349	0.6	25,390	0.3
B	126,688	1.5	128,459	1.5
Lower than B	9,549	0.1	11,321	0.1
Not rated	41,855	0.5	32,477	0.4
Total	\$8,748,722	100.0	\$8,600,824	100.0

(1) Ratings as assigned by the major rating agencies.

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The following table summarizes our top ten exposures to fixed income corporate issuers at December 31, 2008, including amounts guaranteed by the U.S. government:

(U.S. dollars in thousands)	Estimated Market Value		
	U.S. Government Guaranteed(1)	Not Guaranteed	Total
<b>December 31, 2008:</b>			
General Electric Capital Corp.	\$ 31,163	\$ 103,887	\$ 135,050
JPMorgan Chase & Co.	35,875	63,819	99,694
Wells Fargo & Company		99,031	99,031
Citigroup Inc.	41,502	56,943	98,445
Bank of America Corp.	31,895	61,793	93,688
HSBC Holdings PLC	26,104	23,139	49,243
Verizon Communications Inc.		43,305	43,305
Goldman Sachs Group Inc.	27,113	8,826	35,939
Barclays Bank PLC		27,323	27,323
Morgan Stanley Corp.	15,134	11,448	26,582

(1)

Securities issued which are guaranteed by the Federal Deposit Insurance Corporation ("FDIC"), a U.S. government agency, under the Temporary Liquidity Guarantee Program.

At December 31, 2008, we held insurance enhanced municipal bonds, net of prerefunded bonds that are escrowed in U.S. government obligations, in the amount of approximately \$362.5 million, which represented approximately 4% of our total invested assets. These securities had an average rating of "Aa3" by Moody's and "AA" by Standard & Poor's. Giving no effect to the insurance enhancement, the overall credit quality of our insured municipal bond portfolio had an average underlying rating of "Aa3" by Moody's and "AA" by Standard & Poor's. Guarantors of our insurance enhanced municipal bonds, net of prerefunded bonds that are escrowed in U.S. government obligations, included MBIA Insurance Corporation (\$147.8 million), Financial Security Assurance Inc. (\$75.9 million), Ambac Financial Group, Inc. (\$77.6 million), Financial Guaranty Insurance Company (\$32.7 million) and the Texas Permanent School Fund (\$28.5 million). We do not have a significant exposure to insurance enhanced asset-backed or mortgage-backed securities. We do not have any significant investments in companies which guarantee securities at December 31, 2008.

Our portfolio includes investments, such as mortgage-backed securities, which are subject to prepayment risk. At December 31, 2008, our investments in mortgage-backed securities ("MBS"), excluding commercial mortgage-backed securities, amounted to approximately \$1.58 billion, or 15.9% of total investable assets, compared to \$1.23 billion, or 12.2%, at December 31, 2007. Such amounts are classified as "available for sale" and are not held for trading purposes. As with other fixed income investments, the market value of these securities fluctuates depending on market and other general economic conditions and the interest rate environment. Changes in interest rates can expose us to changes in the prepayment rate on these investments. In periods of declining interest rates, mortgage prepayments generally increase and MBS are prepaid more quickly, requiring us to reinvest the proceeds at the then current market rates. Conversely, in periods of rising rates, mortgage prepayments generally fall, preventing us from taking full advantage of the higher level of rates. However, current economic conditions may curtail prepayment activity as refinancing becomes more difficult, thus limiting prepayments on MBS.

In recent months, delinquencies and losses with respect to residential mortgage loans generally have increased and may continue to increase, particularly in the subprime sector. In addition, in recent months residential property values in many states have declined or remained stable, after extended periods during which those values appreciated. A continued decline or an extended flattening in those

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values may result in additional increases in delinquencies and losses on residential mortgage loans generally, especially with respect to second homes and investment properties, and with respect to any residential mortgage loans where the aggregate loan amounts (including any subordinate loans) are close to or greater than the related property values. These developments may have a significant adverse effect on the prices of loans and securities, including those in our investment portfolio. The situation continues to have wide ranging consequences, including downward pressure on economic growth and the potential for increased insurance and reinsurance exposures, which could have an adverse impact on our results of operations, financial condition, business and operations.

The following table provides information on our mortgage backed securities ("MBS") and commercial mortgage backed securities ("CMBS") at December 31, 2008, excluding amounts guaranteed by the U.S. government:

(U.S. dollars in thousands)	Issuance Year	Par Value	Average Credit Quality	Estimated Market Value		
				Total	% of Asset Class	% of Investable Assets
<b>MBS:</b>						
Non-agency MBS	2002	\$ 5,666	AAA	\$ 5,099	0.3	0.1
	2003	9,360	AAA	8,350	0.5	0.1
	2004	53,977	AAA	41,319	2.6	0.4
	2005	115,506	AAA	67,423	4.3	0.7
	2006	97,713	AAA	58,354	3.7	0.6
	2007	135,125	AA-	82,989	5.2	0.8
	2008	31,165	AAA	24,563	1.6	0.2
Total non-agency MBS		\$448,512	AA+	\$288,097	18.2	2.9
<b>CMBS:</b>						
Non-agency CMBS	1998	\$ 3,400	AAA	\$ 3,236	0.3	0.0
	1999	100,996	AAA	102,243	8.4	1.0
	2000	132,168	AAA	128,633	10.5	1.3
	2001	87,124	AAA	83,341	6.8	0.8
	2002	71,486	AAA	65,252	5.3	0.7
	2003	99,068	AAA	87,277	7.2	0.9
	2004	77,414	AAA	67,754	5.6	0.7
	2005	77,952	AAA	62,419	5.1	0.6
	2006	82,252	AAA	65,064	5.3	0.7
	2007	32,900	AAA	26,435	2.2	0.3
Total non-agency CMBS		\$764,760	AAA	\$691,654	56.7	7.0

	Non-Agency MBS	Non-Agency CMBS(1)
<b>Additional Statistics:</b>		
Weighted average loan age (months)	36	79
Weighted average life (months)(2)	78	37
Weighted average loan-to-value %(3)	68%	57%
Total delinquencies(4)	7.8%	1.2%
Current credit support %(5)	14.8%	29.7%

(1) Loans defeased with government/agency obligations represented approximately 23% of the collateral underlying our CMBS holdings.





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- (2) The weighted average life for MBS is based on the interest rates in effect at December 31, 2008. The weighted average life for CMBS reflects the average life of the collateral underlying our CMBS holdings.
- (3) The range of loan-to-values on MBS is 35% to 91% while the range of loan-to-values on CMBS is 43% to 73%.
- (4) Total delinquencies includes 60 days and over.
- (5) Current credit support % represents the percentage for a collateralized mortgage obligation ("CMO") or CMBS class/tranche from other subordinate classes in the same CMO or CMBS deal.

The following table provides information on our asset backed securities ("ABS") at December 31, 2008:

(U.S. dollars in thousands)	Par Value	Average Credit Quality	Effective Duration	Estimated Market Value		
				Total	% of Class	% of Investable Assets
<b>Sector:</b>						
Autos(1)	\$ 281,200	AAA	1.29	\$265,428	27.4	2.7
Credit cards(2)	502,280	AAA	1.68	462,172	47.6	4.6
Rate reduction bonds(3)	139,361	AAA	1.95	139,632	14.4	1.4
Other	85,124	AAA	0.66	78,414	8.1	0.8
	\$1,007,965	AAA	1.52	\$945,646	97.5	9.5
Home equity(4)	\$ 26,422	AAA	0.01	\$ 18,055	1.9	0.2
	9,670	AA	0.01	4,377	0.4	0.0
	1,852	A	0.01	936	0.1	0.0
	343	BBB	0.01	189	0.0	0.0
	5,993	B	0.01	208	0.0	0.0
	10,900	CCC	0.01	544	0.1	0.0
	700	D	0.07	86	0.0	0.0
	\$ 55,880	A	0.01	\$ 24,395	2.5	0.2
<b>Total ABS</b>	<b>\$1,063,845</b>	<b>AAA</b>	<b>1.44</b>	<b>\$970,041</b>	<b>100.0</b>	<b>9.7</b>

- (1) The weighted average credit support % on Auto ABS holdings is 17.6%.
- (2) The average excess spread % on credit card ABS holdings is 6.3%.
- (3) The weighted average credit support % on rate reduction bonds is 1.4%.
- (4) The weighted average credit support % on home equity ABS holdings is 26.6%.

At December 31, 2008, our fixed income portfolio included \$65.1 million par value in sub-prime securities with an estimated market value of \$30.4 million and an average credit quality of "A." Such amounts were primarily in the home equity sector with the balance in other ABS, MBS and CMBS sectors. We define sub-prime mortgage-backed securities as investments in which the underlying loans primarily exhibit one or more of the following characteristics: low FICO scores, above-prime interest rates, high loan-to-value ratios or high debt-to-income ratios. In

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addition, the portfolio of collateral backing our securities lending program contains approximately \$56.1 million estimated market value of sub-prime securities with an average credit quality of "AA+."

Certain of our investments, primarily those included in "other investments" and "investment funds accounted for using the equity method" on our balance sheet, may use leverage to achieve a higher

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rate of return. While leverage presents opportunities for increasing the total return of such investments, it may increase losses as well. Accordingly, any event that adversely affects the value of the underlying securities held by such investments would be magnified to the extent leverage is used and our potential losses from such investments would be magnified. In addition, the structures used to generate leverage may lead to such investment funds being required to meet covenants based on market valuations and asset coverage. Market valuation declines in the funds could force the sale of investments into a depressed market, which may result in significant additional losses. Alternatively, the funds may attempt to deleverage by raising additional equity or potentially changing the terms of the established financing arrangements. We may choose to participate in the additional funding of such investments. Our investment commitments related to investment funds accounted for using the equity method totaled approximately \$8.3 million at December 31, 2008.

Our investment strategy allows for the use of derivative instruments. We utilize various derivative instruments such as futures contracts to enhance investment performance, replicate investment positions or manage market exposures and duration risk. See Note 7, "Investment Information Investment-Related Derivatives," of the notes accompanying our consolidated financial Statements for additional disclosures concerning derivatives.

Other investments totaled \$109.6 million at December 31, 2008, compared to \$353.7 million at December 31, 2007. During 2008, we sold our positions in international equity index funds and reduced our ownership of one fixed income mutual fund. Investment funds accounted for using the equity method totaled \$301.0 million at December 31, 2008, compared to \$236.0 million at December 31, 2007. See Note 7, "Investment Information Other Investments" and "Investment Information Investment Funds Accounted for Using the Equity Method" of the notes accompanying our consolidated financial statements for further details.

Effective January 1, 2008, we adopted and implemented SFAS No. 157, "Fair Value Measurements" ("SFAS No. 157"), which 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. SFAS No. 157 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.

SFAS No. 157 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

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.

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We use quoted values and other data 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, our 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; and (v) back-testing, which includes randomly selecting purchased or sold securities and comparing the executed prices to the fair value estimates from the pricing service. Based on the above review, we will challenge any prices for a security or portfolio which are considered not to be representative of fair value.

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.

We review our securities measured at fair value and discusses the proper classification of such investments with investment advisors and others. Upon adoption of SFAS No. 157 and at December 31, 2008, we 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.

Where we believe 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. We determined that Level 2 securities included corporate bonds, mortgage backed securities, municipal bonds, asset backed securities, certain U.S. government and government agencies, non-U.S. government securities, certain short-term securities and certain other investments.

Following further review of the inputs used in the pricing process, we 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, we 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. As such, we transferred \$136.8 million of corporate bonds and \$31.6 million of other investments in to Level 3 during the 2008 fourth quarter. In addition, Level 3 securities include a small number of premium-tax bonds.

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See Note 7, "Investment Information Fair Value" of the notes accompanying our consolidated financial statements for a summary of our financial assets and liabilities measured at fair value at December 31, 2008 by SFAS No. 157 hierarchy.

**Premiums Receivable and Reinsurance Recoverables**

At December 31, 2008, approximately 62.0% of premiums receivable of \$629.0 million represented amounts not yet due, while amounts in excess of 90 days overdue were 4.1% of the total. At December 31, 2007, approximately 78.8% of premiums receivable of \$729.6 million represented amounts not yet due, while amounts in excess of 90 days overdue were 2.9% of the total. Approximately 2.2% of the \$63.3 million of paid losses and loss adjustment expenses recoverable were in excess of 90 days overdue at December 31, 2008, compared to 37.4% of the \$132.3 million of paid losses and loss adjustment expenses recoverable at December 31, 2007 (a significant portion of such overdue amounts were collected in February 2008). At December 31, 2008 and 2007, our reserves for doubtful accounts were approximately \$5.8 million and \$10.5 million, respectively.

At December 31, 2008, approximately 88.5% of reinsurance recoverables on paid and unpaid losses (not including prepaid reinsurance premiums) of \$1.79 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 7.3% of our total shareholders' equity. At December 31, 2007, approximately 88.5% of our reinsurance recoverables on paid and unpaid losses (not including prepaid reinsurance premiums) of \$1.74 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 5.2%, respectively, of our total shareholders' equity.

The following table details our reinsurance recoverables at December 31, 2008:

	<b>% of Total</b>	<b>A.M. Best Rating(1)</b>
Everest Reinsurance Company	13.8%	A+
Flatiron Re Ltd.(2)	8.3%	NR
Munich Reinsurance America, Inc.	7.0%	A+
Allied World Assurance Company Ltd.	6.3%	A
Odyssey America Reinsurance Corporation(3)	5.6%	A
Munich Reinsurance Company	4.7%	A+
Swiss Reinsurance America Corporation	4.6%	A+
Lloyd's of London syndicates(4)	4.5%	A
Transatlantic Reinsurance Company	4.4%	A
ACE Property & Casualty Insurance Company	3.5%	A+
Federal Insurance Company (part of the Chubb Group)	2.8%	A++
Platinum Underwriters Reinsurance Inc.	2.6%	A
Berkley Insurance Company	2.4%	A+
Sentry Insurance a Mutual Company(5)	2.2%	A+
All other(6)	27.3%	
 Total	 100.0%	

(1)

The financial strength ratings are as of February 9, 2009 and were assigned by A.M. Best based on its opinion of the insurer's financial strength as of such date. An explanation of the ratings listed in the table follows: the ratings of "A++" and "A+" are designated "Superior"; and the "A" and "A-" ratings are designated "Excellent." Additionally, A.M. Best has five classifications within the "Not Rated" or "NR" category. Reasons for an "NR" rating being assigned by A.M. Best include insufficient data, size or operating experience, companies which are in run-off with no active business writings or are dormant, companies which disagree with their rating and request that a rating not be published or insurers that request not to be formally evaluated for the purposes of assigning a rating opinion.

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- (2) Flatiron is required to contribute funds into a trust for the benefit of Arch Re Bermuda. The recoverable from Flatiron was fully collateralized through such trust at December 31, 2008. See note 4, "Reinsurance," of the notes accompanying our consolidated financial statements for further details on the Flatiron Treaty.
- (3) A significant portion of amounts due from Odyssey America Reinsurance Corporation is collateralized through reinsurance trusts.
- (4) The A.M. Best group rating of "A" (Excellent) has been applied to all Lloyd's of London syndicates.
- (5) In connection with our acquisition of Arch Specialty in February 2002, the seller, Sentry, agreed to reinsure and guarantee all liabilities arising out of Arch Specialty's business prior to the closing of the acquisition. In addition to the guarantee provided by Sentry, substantially all of the recoverable from Sentry is still subject to the original reinsurance agreements inuring to Arch Specialty and, to the extent Sentry fails to comply with its payment obligations to us, we may seek reimbursement from the third party reinsurers under such agreements.

- (6) The following table provides a breakdown of the "All other" category by A.M. Best rating:

Companies rated "A-" or better	24.0%
Companies not rated(7)	3.3%
<b>Total</b>	<b>27.3%</b>

- (7) A substantial portion of such amount is collateralized through reinsurance trusts or letters of credit.

See " Critical Accounting Policies, Estimates and Recent Accounting Pronouncements Collection of Insurance-Related Balances and Provision for Doubtful Accounts" for further details.

### ***Reserves for Losses and Loss Adjustment Expenses***

We establish reserves for losses and loss adjustment expenses ("Loss Reserves") which represent estimates involving actuarial and statistical projections, at a given point in time, of our expectations of the ultimate settlement and administration costs of losses incurred. Estimating Loss Reserves is inherently difficult, which is exacerbated by the fact that we are a relatively new company with relatively limited historical experience upon which to base such estimates. We utilize actuarial models as well as available historical insurance industry loss ratio experience and loss development patterns to assist in the establishment of Loss Reserves. Actual losses and loss adjustment expenses paid will deviate, perhaps substantially, from the reserve estimates reflected in our financial statements.

The following table provides a reconciliation of the net Loss Reserves for the years ended December 31, 2008, 2007 and 2006:

	<b>December 31,</b>		
	<b>2008</b>	<b>2007</b>	<b>2006</b>
Net reserve for losses and loss adjustment expenses at beginning of year	\$5,482,833	\$4,910,884	\$4,063,058
Net incurred losses and loss adjustment expenses related to:			
Current year	2,158,914	1,829,534	1,867,344
Prior years	(310,170)	(185,364)	(76,795)
<b>Total net incurred losses and loss adjustment expenses</b>	<b>1,848,744</b>	<b>1,644,170</b>	<b>1,790,549</b>
Foreign exchange (gains) losses	(133,881)	45,192	47,711
<b>Total net paid losses and loss adjustment expenses</b>	<b>1,259,874</b>	<b>1,117,413</b>	<b>990,434</b>
	<b>\$5,937,822</b>	<b>\$5,482,833</b>	<b>\$4,910,884</b>

Net reserve for losses and loss adjustment expenses at end of  
year

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See "Management's Discussion and Analysis of Financial Condition and Results of Operations Critical Accounting Policies, Estimates and Recent Accounting Pronouncements Reserves for Losses and Loss Adjustment Expenses" and "Business Reserves" for further details.

**Shareholders' Equity**

Our shareholders' equity was \$3.43 billion at December 31, 2008, compared to \$4.04 billion at December 31, 2007. The decrease of \$602.8 million in 2008 was attributable to share repurchase activity and an after-tax decrease in the market value of our investment portfolio, partially offset by net income in the period.

**Book Value per Share**

The following table presents the calculation of book value per common share at December 31, 2008 and 2007:

(U.S. dollars in thousands, except share data)	December 31,	
	2008	2007
Calculation of book value per common share:		
Total shareholders' equity	\$ 3,432,965	\$ 4,035,811
Less preferred shareholders' equity	(325,000)	(325,000)
Common shareholders' equity	3,107,965	3,710,811
Common shares outstanding(1)	60,511,974	67,318,466
Book value per common share	\$ 51.36	\$ 55.12

- (1) Excludes the effects of 5,131,135 and 5,486,033 stock options and 412,622 and 116,453 restricted stock units outstanding at December 31, 2008 and 2007, respectively.

**Liquidity and Capital Resources**

ACGL is a holding company whose assets primarily consist of the shares in its subsidiaries. Generally, ACGL depends on its available cash resources, liquid investments and dividends or other distributions from its subsidiaries to make payments, including the payment of debt service obligations and operating expenses it may incur and any dividends or liquidation amounts with respect to the series A non-cumulative and series B non-cumulative preferred shares and common shares. ACGL's readily available cash, short-term investments and marketable securities, excluding amounts held by our regulated insurance and reinsurance subsidiaries, totaled \$16.8 million at December 31, 2008, compared to \$36.3 million at December 31, 2007. During 2008, ACGL received dividends of \$527.1 million from Arch Re Bermuda which were used to fund the share repurchase program described below along with the payment of preferred dividends, interest expense and other corporate expenses.

The ability of our regulated insurance and reinsurance subsidiaries to pay dividends or make distributions or other payments to us is dependent on their ability to meet applicable regulatory standards. Under Bermuda law, Arch Re Bermuda is required to maintain an enhanced capital requirement which must equal or exceed its minimum solvency margin (i.e., the amount by which the value of its general business assets must exceed its general business liabilities) equal to the greatest of (1) \$100.0 million, (2) 50% of net premiums written (being gross premiums written by us less any premiums ceded by us, but we may not deduct more than 25% of gross premiums when computing net premiums written) and (3) 15% of loss and other insurance reserves. Arch Re Bermuda is prohibited from declaring or paying any dividends during any financial year if it is not in compliance with its enhanced capital requirement, minimum solvency margin or minimum liquidity ratio. In addition, Arch Re Bermuda is prohibited from declaring or paying in any financial year dividends of more than 25%



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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 Bermuda Monetary Authority an affidavit stating that it will continue to meet the required margins. In addition, Arch Re Bermuda is prohibited, without prior approval of the Bermuda Monetary Authority, from reducing by 15% or more its total statutory capital, as set out in its previous year's statutory financial statements. At December 31, 2008, as determined under Bermuda law, Arch Re Bermuda had statutory capital of \$2.21 billion and statutory capital and surplus of \$3.36 billion. Such amounts include ownership interests in U.S. insurance and reinsurance subsidiaries. Accordingly, Arch Re Bermuda can pay approximately \$834 million to ACGL during 2009 without providing an affidavit to the Bermuda Monetary Authority, as discussed above. In addition to meeting applicable regulatory standards, the ability of our insurance and reinsurance subsidiaries to pay dividends to intermediate parent companies owned by Arch Re Bermuda is also constrained by our dependence on the financial strength ratings of our insurance and reinsurance subsidiaries from independent rating agencies. The ratings from these agencies depend to a large extent on the capitalization levels of our insurance and reinsurance subsidiaries. We believe that ACGL has sufficient cash resources and available dividend capacity to service its indebtedness and other current outstanding obligations.

Our insurance and reinsurance subsidiaries are required to maintain assets on deposit, which primarily consist of fixed maturities, with various regulatory authorities to support their operations. The assets on deposit are available to settle insurance and reinsurance liabilities to third parties. Our insurance and reinsurance subsidiaries also have investments in segregated portfolios primarily to provide collateral or guarantees for letters of credit to third parties. At December 31, 2008 and 2007, such amounts approximated \$1.28 billion and \$1.17 billion, respectively. In addition, certain of our operating subsidiaries maintain assets in trust accounts as collateral for insurance and reinsurance transactions with affiliated companies. At December 31, 2008 and 2007, such amounts approximated \$4.03 billion and \$3.8 billion, respectively.

ACGL, through its subsidiaries, provides financial support to certain of its insurance subsidiaries and affiliates, through certain reinsurance arrangements essential to the ratings of such subsidiaries. Except as described in the preceding sentence, or where express reinsurance, guarantee or other financial support contractual arrangements are in place, each of ACGL's subsidiaries or affiliates is solely responsible for its own liabilities and commitments (and no other ACGL subsidiary or affiliate is so responsible). Any reinsurance arrangements, guarantees or other financial support contractual arrangements that are in place are solely for the benefit of the ACGL subsidiary or affiliate involved and third parties (creditors or insureds of such entity) are not express beneficiaries of such arrangements.

Our insurance and reinsurance operations provide liquidity in that premiums are received in advance, sometimes substantially in advance, of the time losses are paid. The period of time from the occurrence of a claim through the settlement of the liability may extend many years into the future. Sources of liquidity include cash flows from operations, financing arrangements or routine sales of investments.

As part of our investment strategy, we seek to establish a level of cash and highly liquid short-term and intermediate-term securities which, combined with expected cash flow, is believed by us to be adequate to meet our foreseeable payment obligations. However, due to the nature of our operations, cash flows are affected by claim payments that may comprise large payments on a limited number of claims and which can fluctuate from year to year. We believe that our liquid investments and cash flow will provide us with sufficient liquidity in order to meet our claim payment obligations. However, the timing and amounts of actual claim payments related to recorded Loss Reserves vary based on many factors, including large individual losses, changes in the legal environment, as well as general market conditions. The ultimate amount of the claim payments could differ materially from our estimated amounts. Certain lines of business written by us, such as excess casualty, have loss experience characterized as low frequency and high severity. The foregoing may result in significant variability in

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loss payment patterns. The impact of this variability can be exacerbated by the fact that the timing of the receipt of reinsurance recoverables owed to us may be slower than anticipated by us. Therefore, the irregular timing of claim payments can create significant variations in cash flows from operations between periods and may require us to utilize other sources of liquidity to make these payments, which may include the sale of investments or utilization of existing or new credit facilities or capital market transactions. If the source of liquidity is the sale of investments, we may be forced to sell such investments at a loss, which may be material.

Consolidated net cash provided by operating activities was \$1.14 billion for 2008, compared to \$1.44 billion for 2007. The lower level of operating cash flows in 2008 primarily resulted from an increase in paid losses, as our insurance and reinsurance loss reserves have continued to mature, along with a lower level of premiums written and collected. Cash flow from operating activities are provided by premiums collected, fee income, investment income and collected reinsurance recoverables, offset by losses and loss adjustment expense payments, reinsurance premiums paid, operating costs and current taxes paid.

On a consolidated basis, our aggregate cash and invested assets totaled \$9.97 billion at December 31, 2008, compared to \$10.12 billion at December 31, 2007. The primary goals of our asset liability management process are to satisfy the insurance liabilities, manage the interest rate risk embedded in those insurance liabilities and maintain sufficient liquidity to cover fluctuations in projected liability cash flows. Generally, the expected principal and interest payments produced by our fixed income portfolio adequately fund the estimated runoff of our insurance reserves. Although this is not an exact cash flow match in each period, the substantial degree by which the market value of the fixed income portfolio exceeds the expected present value of the net insurance liabilities, as well as the positive cash flow from newly sold policies and the large amount of high quality liquid bonds, provide assurance of our ability to fund the payment of claims without having to sell securities at distressed prices in an illiquid market or access credit facilities.

We expect that our operational needs, including our anticipated insurance obligations and operating and capital expenditure needs, for the next twelve months, at a minimum, will be met by our balance of cash, short-term investments and our credit facilities, as well as by funds generated from underwriting activities and investment income and proceeds on the sale or maturity of our investments.

We monitor our capital adequacy on a regular basis and will seek to adjust our capital base (up or down) according to the needs of our business. The future capital requirements of our business will depend on many factors, including our ability to write new business successfully and to establish premium rates and reserves at levels sufficient to cover losses. Our ability to underwrite is largely dependent upon the quality of our claims paying and financial strength ratings as evaluated by independent rating agencies. In particular, we require (1) sufficient capital to maintain our financial strength ratings, as issued by several ratings agencies, at a level considered necessary by management to enable our key operating subsidiaries to compete; (2) sufficient capital to enable our underwriting subsidiaries to meet the capital adequacy tests performed by statutory agencies in the U.S. and other key markets; and (3) letters of credit and other forms of collateral that are necessary for our non-U.S. operating companies because they are "non-admitted" under U.S. state insurance regulations.

As part of our capital management program, we may seek to raise additional capital or may seek to return capital to our shareholders through share repurchases, cash dividends or other methods (or a combination of such methods). Any such determination will be at the discretion of our board of directors and will be dependent upon our profits, financial requirements and other factors, including legal restrictions, rating agency requirements and such other factors as our board of directors deems relevant.

The board of directors of ACGL has authorized the investment of up to \$1.5 billion in ACGL's common shares through a share repurchase program. Such amount consisted of a \$1.0 billion

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authorization in February 2007 and a \$500.0 million authorization in May 2008. Repurchases under the program may be effected from time to time in open market or privately negotiated transactions through February 2010. Since the inception of the share repurchase program through December 31, 2008, ACGL has repurchased approximately 15.3 million common shares for an aggregate purchase price of \$1.05 billion. During 2008, ACGL repurchased approximately 7.5 million common shares under the share repurchase program for an aggregate purchase price of \$513.1 million.

At December 31, 2008, approximately \$449.8 million of share repurchases were available under the program. The timing and amount of the repurchase transactions under this program will depend on a variety of factors, including market conditions and corporate and regulatory considerations. In light of current financial and insurance market conditions, we will likely not repurchase shares in the first half of 2009, although our plans may change depending on market conditions, our share price performance or other factors. In connection with the share repurchase program, the Warburg Pincus funds waived their rights relating to share repurchases under the shareholders agreement for all repurchases of common shares by ACGL under the share repurchase program in open market transactions and certain privately negotiated transactions.

To the extent that our existing capital is insufficient to fund our future operating requirements or maintain such ratings, we may need to raise additional funds through financings or limit our growth. Given the recent severe disruptions in the public debt and equity markets, including among other things, widening of credit spreads, lack of liquidity and bankruptcies, we can provide no assurance that, if needed, we would be able to obtain additional funds through financing on satisfactory terms or at all. Continued adverse developments in the financial markets, such as disruptions, uncertainty or volatility in the capital and credit markets, may result in realized and unrealized capital losses that could have a material adverse effect on our results of operations, financial position and our businesses, and may also limit our access to capital required to operate our business.

If we are not able to obtain adequate capital, our business, results of operations and financial condition could be adversely affected, which could include, among other things, the following possible outcomes: (1) potential downgrades in the financial strength ratings assigned by ratings agencies to our operating subsidiaries, which could place those operating subsidiaries at a competitive disadvantage compared to higher-rated competitors; (2) reductions in the amount of business that our operating subsidiaries are able to write in order to meet capital adequacy-based tests enforced by statutory agencies; and (3) any resultant ratings downgrades could, among other things, affect our ability to write business and increase the cost of bank credit and letters of credit. In addition, under certain of the reinsurance agreements assumed by our reinsurance operations, upon the occurrence of a ratings downgrade or other specified triggering event with respect to our reinsurance operations, such as a reduction in surplus by specified amounts during specified periods, our ceding company clients may be provided with certain rights, including, among other things, the right to terminate the subject reinsurance agreement and/or to require that our reinsurance operations post additional collateral.

In addition to common share capital, we depend on external sources of finance to support our underwriting activities, which can be in the form (or any combination) of debt securities, preference shares, common equity and bank credit facilities providing loans and/or letters of credit. As noted above, equity or debt financing, if available at all, may be on terms that are unfavorable to us. In the case of equity financings, dilution to our shareholders could result, and, in any case, such securities may have rights, preferences and privileges that are senior to those of our outstanding securities.

In June 2006, ACGL and Arch-U.S. filed a universal shelf registration statement with the SEC. This registration statement allows for the possible future offer and sale by us of various types of securities, including unsecured debt securities, preference shares, common shares, warrants, share purchase contracts and units and depositary shares. The shelf registration statement enables us to efficiently access the public debt and/or equity capital markets in order to meet our future capital needs. The shelf registration statement also allows selling shareholders to resell common shares that

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they own in one or more offerings from time to time. We will not receive any proceeds from any shares offered by the selling shareholders. This report is not an offer to sell or the solicitation of an offer to buy nor shall there be any sale of these securities in any state in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state.

In August 2006, we entered into a five-year agreement for a \$300.0 million unsecured revolving loan and letter of credit facility and a \$1.0 billion secured letter of credit facility. The \$300.0 million unsecured loan and letter of credit facility is also available for the issuance of unsecured letters of credit up to \$100.0 million for our U.S.-based reinsurance operation. See " Contractual Obligations and Commercial Commitments Letters of Credit and Revolving Credit Facilities" for a discussion of our available facilities, applicable covenants on such facilities and available capacity. It is anticipated that the available facilities will be renewed (or replaced) on expiry, but such renewal (or replacement) will be subject to the availability of credit from banks which we utilize. Given the recent disruptions in the capital markets, we can provide no assurance that we will be able to renew the facilities in August 2011 on satisfactory terms and, if renewed, the costs of the facilities may be significantly higher than the costs of our existing facilities.

During 2006, ACGL completed two public offerings of non-cumulative preferred shares. On February 1, 2006, \$200.0 million principal amount of 8.0% series A non-cumulative preferred shares ("series A preferred shares") were issued with net proceeds of \$193.5 million and, on May 24, 2006, \$125.0 million principal amount of 7.875% series B non-cumulative preferred shares ("series B preferred shares" and together with the series A preferred shares, the "preferred shares") were issued with net proceeds of \$120.9 million. The net proceeds of the offerings were used to support the underwriting activities of ACGL's insurance and reinsurance subsidiaries. ACGL has the right to redeem all or a portion of each series of preferred shares at a redemption price of \$25.00 per share on or after (1) February 1, 2011 for the series A preferred shares and (2) May 15, 2011 for the series B preferred shares. Dividends on the preferred shares are non-cumulative. Consequently, in the event dividends are not declared on the preferred shares for any dividend period, holders of preferred shares will not be entitled to receive a dividend for such period, and such undeclared dividend will not accrue and will not be payable. Holders of preferred shares will be entitled to receive dividend payments only when, as and if declared by ACGL's board of directors or a duly authorized committee of ACGL's board of directors. Any such dividends will be payable from the date of original issue on a non-cumulative basis, quarterly in arrears. To the extent declared, these dividends will accumulate, with respect to each dividend period, in an amount per share equal to 8.0% of the \$25.00 liquidation preference per annum for the series A preferred shares and 7.875% of the \$25.00 liquidation preference per annum for the series B preferred shares. During 2008 and 2007, we paid \$25.8 million to holders of the preferred shares and, at December 31, 2008, had declared an aggregate of \$3.3 million of dividends to be paid to holders of the preferred shares.

At December 31, 2008, ACGL's capital of \$3.83 billion consisted of \$300.0 million of senior notes, representing 7.8% of the total, \$100.0 million of revolving credit agreement borrowings due in August 2011, representing 2.6% of the total, \$325.0 million of preferred shares, representing 8.5% of the total, and common shareholders' equity of \$3.11 billion, representing the balance. At December 31, 2007, ACGL's capital of \$4.34 billion consisted of \$300.0 million of senior notes, representing 6.9% of the total, \$325.0 million of preferred shares, representing 7.5% of the total, and common shareholders' equity of \$3.71 billion, representing the balance. The decrease in capital during 2008 was primarily attributable to an after-tax decrease in the market value of our investment portfolio and share repurchase activity, partially offset by net income and borrowings during the period.

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**NATURAL AND MAN-MADE CATASTROPHIC EVENTS**

We have large aggregate exposures to natural and man-made catastrophic events. Catastrophes can be caused by various events, including, but not limited to, hurricanes, floods, windstorms, earthquakes, hailstorms, explosions, severe winter weather and fires. Catastrophes can also cause losses in non-property business such as workers' compensation or general liability. In addition to the nature of property business, we believe that economic and geographic trends affecting insured property, including inflation, property value appreciation and geographic concentration, tend to generally increase the size of losses from catastrophic events over time.

We have substantial exposure to unexpected, large losses resulting from future man-made catastrophic events, such as acts of war, acts of terrorism and political instability. These risks are inherently unpredictable. It is difficult to predict the timing of such events with statistical certainty or estimate the amount of loss any given occurrence will generate. It is not possible to completely eliminate our exposure to unforecasted or unpredictable events and, to the extent that losses from such risks occur, our financial condition and results of operations could be materially adversely affected. Therefore, claims for natural and man-made catastrophic events could expose us to large losses and cause substantial volatility in our results of operations, which could cause the value of our common shares to fluctuate widely. In certain instances, we specifically insure and reinsure risks resulting from terrorism. Even in cases where we attempt to exclude losses from terrorism and certain other similar risks from some coverages written by us, we may not be successful in doing so. Moreover, irrespective of the clarity and inclusiveness of policy language, there can be no assurance that a court or arbitration panel will limit enforceability of policy language or otherwise issue a ruling adverse to us.

We seek to limit our loss exposure by writing a number of our reinsurance contracts on an excess of loss basis, adhering to maximum limitations on reinsurance written in defined geographical zones, limiting program size for each client and prudent underwriting of each program written. In the case of proportional treaties, we may seek per occurrence limitations or loss ratio caps to limit the impact of losses from any one or series of events. In our insurance operations, we seek to limit our exposure through the purchase of reinsurance. We cannot be certain that any of these loss limitation methods will be effective. We also seek to limit our loss exposure by geographic diversification. Geographic zone limitations involve significant underwriting judgments, including the determination of the area of the zones and the inclusion of a particular policy within a particular zone's limits. There can be no assurance that various provisions of our policies, such as limitations or exclusions from coverage or choice of forum, will be enforceable in the manner we intend. Disputes relating to coverage and choice of legal forum may also arise. Underwriting is inherently a matter of judgment, involving important assumptions about matters that are inherently unpredictable and beyond our control, and for which historical experience and probability analysis may not provide sufficient guidance. One or more catastrophic or other events could result in claims that substantially exceed our expectations, which could have a material adverse effect on our financial condition or our results of operations, possibly to the extent of eliminating our shareholders' equity.

For our natural catastrophe exposed business, we seek to limit the amount of exposure we will assume from any one insured or reinsured and the amount of the exposure to catastrophe losses from a single event in any geographic zone. We monitor our exposure to catastrophic events, including earthquake and wind and periodically reevaluate the estimated probable maximum pre-tax loss for such exposures. Our estimated probable maximum pre-tax loss is determined through the use of modeling techniques, but such estimate does not represent our total potential loss for such exposures. We seek to limit the probable maximum pre-tax loss to a specific level for severe catastrophic events. Currently, we generally seek to limit the probable maximum pre-tax loss to approximately 25% of total shareholders' equity for a severe catastrophic event in any geographic zone that could be expected to occur once in every 250 years, although we reserve the right to change this threshold at any time. There can be no assurances that we will not suffer pre-tax losses greater than 25% of our total shareholders' equity from

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one or more catastrophic events due to several factors, including the inherent uncertainties in estimating the frequency and severity of such events and the margin of error in making such determinations resulting from potential inaccuracies and inadequacies in the data provided by clients and brokers, the modeling techniques and the application of such techniques or as a result of a decision to change the percentage of shareholders' equity exposed to a single catastrophic event. In addition, depending on business opportunities and the mix of business that may comprise our insurance and reinsurance portfolio, we may seek to adjust our self-imposed limitations on probable maximum pre-tax loss for catastrophe exposed business. See "Critical Accounting Policies, Estimates and Recent Accounting Pronouncements Ceded Reinsurance" for a discussion of our catastrophe reinsurance programs.

**CONTRACTUAL OBLIGATIONS AND COMMERCIAL COMMITMENTS**

**Letter of Credit and Revolving Credit Facilities**

At December 31, 2008, we had access to a \$300.0 million unsecured revolving loan and letter of credit facility and a \$1.0 billion secured letter of credit facility (the "Credit Agreement"). The \$300.0 million unsecured revolving loan is also available for the issuance of unsecured letters of credit up to \$100.0 million for Arch Re U.S. Borrowings of revolving loans may be made by ACG and Arch Re U.S. at a variable rate based on LIBOR or an alternative base rate at our option. Secured letters of credit are available for issuance on behalf of our insurance and reinsurance subsidiaries. Issuance of letters of credit and borrowings under the Credit Agreement are subject to our compliance with certain covenants and conditions, including absence of a material adverse change. These covenants require, among other things, that we 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 our principal insurance and reinsurance subsidiaries maintain at least a "B++" rating from A.M. Best. In addition, certain of our subsidiaries which are party to the Credit Agreement are required to maintain minimum shareholders' equity levels. We were in compliance with all covenants contained in the Credit Agreement at December 31, 2008. The Credit Agreement expires on August 30, 2011.

Including the secured letter of credit portion of the Credit Agreement and another letter of credit facility (together, the "LOC Facilities"), we have access to letter of credit facilities for up to a total of \$1.45 billion. 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 we have entered into reinsurance arrangements to ensure that such counterparties are permitted to take credit for reinsurance obtained from our 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 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 our business and the loss experience of such business. When issued, certain letters of credit are secured by a portion of our investment portfolio. In addition, the LOC Facilities also require the maintenance of certain covenants, which we were in compliance with at December 31, 2008. At such date, we had approximately \$599.9 million in outstanding letters of credit under the LOC Facilities, which were secured by investments totaling \$697.6 million. In May 2008, we borrowed \$100.0 million under the Credit Agreement at a 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 to Arch Re Bermuda and used to fund the investment in Gulf Re noted below.

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It is anticipated that the LOC Facilities will be renewed (or replaced) on expiry, but such renewal (or replacement) will be subject to the availability of credit from banks which we utilize. In addition to letters of credit, we have established and may establish additional insurance trust accounts in the U.S. and Canada to secure our reinsurance amounts payable as required. See note 7, "Investment Information," of the notes accompanying our consolidated financial statements.

**Senior Notes**

On May 4, 2004, ACGL completed a public offering of \$300.0 million principal amount of 7.35% senior notes ("Senior Notes") due May 1, 2034 and received net proceeds of \$296.4 million. ACGL used \$200.0 million of the net proceeds to repay all amounts outstanding under a revolving credit agreement. The Senior Notes are ACGL's senior unsecured obligations and rank equally with all of its existing and future senior unsecured indebtedness. Interest payments on the Senior Notes are due on May 1st and November 1st of each year. ACGL may redeem the Senior Notes at any time and from time to time, in whole or in part, at a "make-whole" redemption price. For 2008, 2007 and 2006, interest expense on the Senior Notes was approximately \$22.1 million. The market value of the Senior Notes at December 31 2008 and 2007 was \$246.1 million and \$325.4 million, respectively.

**Investment in Joint Venture**

In May 2008, Arch Re Bermuda 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 GIC. Under the agreement, each of Arch Re Bermuda and GIC owns 50% of Gulf Re. The initial total capital of the joint venture consists of \$200.0 million, plus an additional \$200.0 million to be funded equally by us and GIC depending on the joint venture's business needs.

**Contractual Obligations**

The following table provides an analysis of our contractual commitments at December 31, 2008:

(U.S. dollars in thousands)	Total	Payment due by period			
		Less than 1 year	1 - 3 years	4 - 5 years	More than 5 years
Long-term debt obligations	\$ 400,000		\$ 100,000		\$ 300,000
Interest expense on long-term debt obligations	562,275	22,050	44,100	44,100	452,025
Operating lease obligations	119,836	15,356	28,646	24,172	51,662
Purchase obligations	28,529	13,468	11,274	3,575	212
Reserves for losses and loss adjustment expenses, gross(1)	7,666,957	2,248,781	2,532,935	1,177,584	1,707,657
Deposit accounting liabilities(2)	39,845	1,943	6,926	7,255	23,721
Securities lending collateral(3)	753,528	753,528			
Investment in joint venture(4)	100,000				100,000
Unfunded investment commitments	8,255	8,255			
<b>Total</b>	<b>\$9,679,225</b>	<b>\$ 3,063,381</b>	<b>\$2,723,881</b>	<b>\$1,256,686</b>	<b>\$ 2,635,277</b>

(1)

The estimated expected contractual commitments related to the reserves for losses and loss adjustment expenses are presented on a gross basis. It should be noted that until a claim has been

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presented to us, determined to be valid, quantified and settled, there is no known obligation on an individual transaction basis, and while estimable in the aggregate, the timing and amount contain significant uncertainty. Approximately 70% of our net reserves were incurred but not reported at December 31, 2008.

- (2) The estimated expected contractual commitments related to deposit accounting liabilities have been estimated using projected cash flows from the underlying contracts. It should be noted that, due to the nature of such liabilities, the timing and amount contain significant uncertainty.
- (3) As part of our securities lending program, we loan certain fixed income securities to third parties and receive collateral, primarily in the form of cash. The collateral received is reinvested and is reflected as "short-term investment of funds received under securities lending agreements, at market value." Such collateral is due back to the third parties at the close of the securities lending transaction.
- (4) We have committed an additional \$100.0 million to our investment in Gulf Re depending on the joint venture's business needs. We do not anticipate that additional funding will be required in the next five years.

**OFF-BALANCE SHEET ARRANGEMENTS**

We are not party to any transaction, agreement or other contractual arrangement to which an entity unconsolidated with us is a party that management believes is reasonably likely to have a current or future effect on our financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources that is material to investors. We concluded that, under FASB Interpretation No. 46R, "Consolidation of Variable Interest Entities," which was issued and became effective for us during the 2004 first quarter, we are required to consolidate the assets, liabilities and results of operations (if any) of a certain managing general agency in which one of our subsidiaries has an investment. Such agency ceased producing business in 1999 and is currently running-off its operations. Based on current information, there are no assets or liabilities of such agency required to be reflected on the face of our consolidated financial statements that are not, or have not been previously, otherwise reflected therein.

On December 29, 2005, Arch Re Bermuda entered into a quota share reinsurance treaty with Flatiron pursuant to which Flatiron assumed a 45% quota share (the "Flatiron Treaty") of certain lines of property and marine business underwritten by Arch Re Bermuda for unaffiliated third parties for the 2006 and 2007 underwriting years (January 1, 2006 to December 31, 2007). Effective June 28, 2006, the parties amended the Flatiron Treaty to increase the percentage ceded to Flatiron from 45% to 70% of all covered business bound by Arch Re Bermuda from (and including) June 28, 2006 until (and including) August 15, 2006 provided such business did not incept beyond September 30, 2006. The ceding percentage for all business bound outside of this period continued to be 45%. On December 31, 2007, the Flatiron Treaty expired by its terms. As a result of the terms of the Flatiron Treaty, we determined that Flatiron is a variable interest entity. However, Arch Re Bermuda is not the primary beneficiary of Flatiron and, as such, we are not required to consolidate the assets, liabilities and results of operations of Flatiron per FIN 46R.

**MARKET SENSITIVE INSTRUMENTS AND RISK MANAGEMENT**

Our investment results are subject to a variety of risks, including risks related to changes in the business, financial condition or results of operations of the entities in which we invest, as well as changes in general economic conditions and overall market conditions. We are also exposed to potential loss from various market risks, including changes in equity prices, interest rates and foreign currency exchange rates.



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In accordance with the SEC's Financial Reporting Release No. 48, we performed a sensitivity analysis to determine the effects that market risk exposures could have on the future earnings, market values or cash flows of our financial instruments as of December 31, 2008. Market risk represents the risk of changes in the market value of a financial instrument and consists of several components, including liquidity, basis and price risks.

The sensitivity analysis performed as of December 31, 2008 presents hypothetical losses in cash flows, earnings and market values of market sensitive instruments which were held by us on December 31, 2008 and are sensitive to changes in interest rates and equity security prices. This risk management discussion and the estimated amounts generated from the following sensitivity analysis represent forward-looking statements of market risk assuming certain adverse market conditions occur. Actual results in the future may differ materially from these projected results due to actual developments in the global financial markets. The analysis methods used by us to assess and mitigate risk should not be considered projections of future events of losses.

The focus of the SEC's market risk rules is on price risk. For purposes of specific risk analysis, we employ sensitivity analysis to determine the effects that market risk exposures could have on the future earnings, market values or cash flows of our financial instruments. The financial instruments included in the following sensitivity analysis consist of all of our investments and cash.

**Investment Market Risk**

*Fixed Income Securities.* We invest in interest rate sensitive securities, primarily debt securities. We consider the effect of interest rate movements on the market value of our fixed maturities, fixed maturities pledged under securities lending agreements, short-term investments and certain of our other investments which invest in fixed income securities and the corresponding change in unrealized appreciation. As interest rates rise, the market value of our interest rate sensitive securities falls, and the converse is also true. The following table summarizes the effect that an immediate, parallel shift in the interest rate yield curve would have had on the portfolio at December 31, 2008 and 2007. Based on historical observations, there is a low probability that all interest rate yield curves would shift in the same direction at the same time. Furthermore, in recent months interest rate movements in many credit sectors have exhibited a much lower correlation to changes in U.S. Treasury yields. Accordingly, the actual effect of interest rate movements may differ materially from the amounts set forth below. For further discussion on investment activity, please refer to " Financial Condition, Liquidity and Capital Resources Financial Condition Investable Assets"

(U.S. dollars in millions)	Interest Rate Shift in Basis Points				
	-100	-50	0	50	100
<b>December 31, 2008:</b>					
Total market value	\$ 10,018.4	\$ 9,850.9	\$ 9,659.9	\$ 9,499.7	\$ 9,330.2
Market value change from base	3.71%	1.98%		(1.66)%	(3.41)%
Change in unrealized value	\$ 358.5	\$ 191.0		\$ (160.2)	\$ (329.7)
<b>December 31, 2007:</b>					
Total market value	\$ 10,048.9	\$ 9,885.3	\$ 9,725.0	\$ 9,565.4	\$ 9,409.6
Market value change from base	3.33%	1.65%		(1.64)%	(3.24)%
Change in unrealized value	\$ 323.9	\$ 160.3		\$ (159.6)	\$ (315.4)

In addition, we consider the effect of credit spread movements on the market value of our fixed maturities, fixed maturities pledged under securities lending agreements, short-term investments and certain of our other investments and investment funds accounted for using the equity method which invest in fixed income securities and the corresponding change in unrealized appreciation. As credit spreads widen, the market value of our fixed income securities falls, and the converse is also true. The

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following table summarizes the effect that an immediate, parallel shift in credit spreads in a static interest rate environment would have had on the portfolio at December 31, 2008:

(U.S. dollars in millions)	Credit Spread Shift in Basis Points				
	-100	-50	0	50	100
<b>December 31, 2008:</b>					
Total market value	\$9,868.6	\$9,764.2	\$9,659.9	\$9,555.6	\$9,451.2
Market value change from base	2.16%	1.08%		(1.08)%	(2.16)%
Change in unrealized value	\$ 208.7	\$ 104.3		\$ (104.3)	\$ (208.7)

Another method that attempts to measure portfolio risk is Value-at-Risk ("VaR"). VaR attempts to take into account a broad cross-section of risks facing a portfolio by utilizing relevant securities volatility data skewed towards the most recent months and quarters. VaR measures the amount of a portfolio at risk for outcomes 1.65 standard deviations from the mean based on normal market conditions over a one year time horizon and is expressed as a percentage of the portfolio's initial value. In other words, 95% of the time, should the risks taken into account in the VaR model perform per their historical tendencies, the portfolio's loss in any one year period is expected to be less than or equal to the calculated VaR, stated as a percentage of the measured portfolio's initial value. As of December 31, 2008, our portfolio's VaR was estimated to be 8.49%, compared to an estimated 3.73% at December 31, 2007, and reflected the significant increase in volatility in 2008.

*Privately Held Securities and Equity Securities.* Our investment portfolio includes an allocation to privately held securities and equity securities. At December 31, 2008 and 2007, the market value of our investments privately held securities and equity securities (excluding our investment in Aeolus LP which is accounted for using the equity method) totaled \$8.8 million and \$105.3 million, respectively. These securities are exposed to price risk, which is the potential loss arising from decreases in market value. An immediate hypothetical 10% depreciation in the value of each position would reduce the market value of such investments by approximately \$0.9 million and \$10.5 million at December 31 2008 and 2007, respectively, and would have decreased book value per common share by approximately \$0.01 and \$0.16, respectively.

*Investment-Related Derivatives.* We began to invest in certain derivative instruments in 2006 to replicate investment positions and to manage market exposures and duration risk. At December 31, 2008 and 2007, the notional value of the net long position for equity futures was nil and \$91.2 million, respectively. At December 31, 2008, the notional value of the net long position for Treasury note futures was \$556.3 million, compared to \$61.7 million at December 31, 2007. At December 31, 2008, the notional value of the net long position for U.K. and German government futures was approximately \$363.3 million (at December 31, 2008 foreign currency rates). A 10% depreciation of the underlying exposure to these derivative instruments at December 31, 2008 and 2007 would have resulted in a reduction in net income of approximately \$92.0 million and \$15.3 million, respectively, and would have decreased book value per common share by \$1.52 and \$0.23, respectively.

### Foreign Currency Exchange Risk

Foreign currency rate risk is the potential change in value, income and cash flow arising from adverse changes in foreign currency exchange rates. A 10% depreciation of the U.S. Dollar against other currencies under our outstanding contracts at December 31, 2008 and 2007, net of unrealized appreciation on our securities denominated in currencies other than the U.S. Dollar, would have resulted in unrealized gains of approximately \$4.9 million and \$12.9 million, respectively, and would have increased book value per common share by approximately \$0.08 and \$0.19, respectively. A 10% appreciation of the U.S. Dollar against other currencies under our outstanding contracts at December 31, 2008 and 2007, net of unrealized depreciation on our securities denominated in

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currencies other than the U.S. Dollar, would have resulted in unrealized losses of approximately \$4.9 million and \$12.9 million, respectively, and would have decreased book value per common share by approximately \$0.08 and \$0.19, respectively. Historical observations indicate a low probability that all foreign currency exchange rates would shift against the U.S. Dollar in the same direction and at the same time and, accordingly, the actual effect of foreign currency rate movements may differ materially from the amounts set forth above. For further discussion on foreign exchange activity, please refer to " Results of Operations."

**Effects of Inflation**

We do not believe that inflation has had a material effect on our consolidated results of operations, except insofar as inflation may affect our reserves for losses and loss adjustment expenses and interest rates. The potential exists, after a catastrophe loss, for the development of inflationary pressures in a local economy. The anticipated effects of inflation on us are considered in our catastrophe loss models. The actual effects of inflation on our results cannot be accurately known until claims are ultimately settled.

**ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

Reference is made to the information appearing above under the subheading "Market Sensitive Instruments and Risk Management" under the caption "Management's Discussion and Analysis of Financial Condition and Results of Operation," which information is hereby incorporated by reference.

**ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA**

See our consolidated financial statements and notes thereto and required financial statement schedules commencing on page F-1.

**ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE**

None.

**ITEM 9A. CONTROLS AND PROCEDURES**

**Evaluation of Disclosure Controls and Procedures**

In connection with the filing of this Form 10-K, our management, including the Chief Executive Officer and Chief Financial Officer, conducted an evaluation, as of December 31, 2008, for the purposes set forth in the applicable rules under the Securities and Exchange Act of 1934, as amended (the "Exchange Act"). Based on that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that the disclosure controls and procedures are effective.

We continue to enhance our operating procedures and internal controls (including the timely and successful implementation of our information technology initiatives, which include the implementation of improved computerized systems and programs to replace and support manual systems, and including controls over financial reporting) to effectively support our business and our regulatory and reporting requirements. Our management does not expect that our disclosure controls or our internal controls will prevent all errors and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. As a result of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within the company have been detected. These inherent limitations include

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the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons or by collusion of two or more people. The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions; over time, controls may become inadequate because of changes in conditions, or the degree of compliance with the policies or procedures may deteriorate. As a result of the inherent limitations in a cost-effective control system, misstatement due to error or fraud may occur and not be detected. Accordingly, our disclosure controls and procedures are designed to provide reasonable, not absolute, assurance that the disclosure controls and procedures are met.

**Management's Annual Report on Internal Control Over Financial Reporting**

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. Our management assessed the effectiveness of our internal control over financial reporting as of December 31, 2008. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations (COSO) of the Treadway Commission in *Internal Control-Integrated Framework*.

Based on our assessment, management determined that, as of December 31, 2008, our internal control over financial reporting was effective. The effectiveness of our internal control over financial reporting as of December 31, 2008 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which appears on page F-2.

**Changes in Internal Controls Over Financial Reporting**

There have been no changes in internal control over financial reporting that occurred in connection with our evaluation required pursuant to Rules 13a-15 and 15d-15 under the Exchange Act during the fiscal quarter ended December 31, 2008 that have materially affected, or are reasonably likely to materially affect, internal control over financial reporting.

**ITEM 9B. OTHER INFORMATION**

None.

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**PART III**

**ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE**

The information required by this item is incorporated by reference from the information to be included in our definitive proxy statement ("Proxy Statement") for our annual meeting of shareholders to be held in 2008, which we intend to file with the SEC pursuant to Regulation 14A. Copies of our code of ethics applicable to our chief executive officer, chief financial officer and principal accounting officer or controller are available free of charge to investors upon written request addressed to the attention of ACGL's corporate secretary, Wessex House, 45 Reid Street, Hamilton HM 12, Bermuda. In addition, our code of ethics and certain other basic corporate documents, including the charters of our audit committee, compensation committee and nominating committee are posted on our website. If any substantive amendments are made to the code of ethics or if there is a grant of a waiver, including any implicit waiver, we will disclose the nature of such amendment or waiver on our website or in a report on Form 8-K, to the extent required by applicable law or the rules and regulations of any exchange applicable to us. Our website address is intended to be an inactive, textual reference only and none of the material on our website is incorporated by reference into this report.

**ITEM 11. EXECUTIVE COMPENSATION**

The information required by this item is incorporated by reference from the information to be included in the Proxy Statement to be filed pursuant to Regulation 14A with the SEC before April 30, 2009, which Proxy Statement is incorporated by reference.

**ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS**

Other than the information set forth below, the information required by this item is incorporated by reference from the information to be included in the Proxy Statement to be filed pursuant to Regulation 14A with the SEC before April 30, 2009, which Proxy Statement is incorporated by reference.

**SECURITIES AUTHORIZED FOR ISSUANCE UNDER EQUITY COMPENSATION PLANS**

In October 2001, we adopted the Long Term Incentive Plan for New Employees ("New Employee Plan") to provide incentives to attract and motivate new hires in connection with the launch of our underwriting initiative. A total of 3,634,170 of such share awards were granted under the New Employee Plan. The New Employee Plan was not approved by our shareholders and was subsequently terminated in 2002, although a total of 1,360,380 share awards remain outstanding under the New Employee Plan as of December 31, 2008. For information about our equity compensation plans, see note 13, "Share Capital," of the notes accompanying our consolidated financial statements.

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The following information is as of December 31, 2008:

<b>Plan category</b>	<b>Number of securities to be issued upon exercise of outstanding options(1), warrants and rights (a)</b>	<b>Weighted-average exercise price of outstanding options(1), warrants and rights (b)</b>	<b>Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column(a)) (c)</b>
Equity compensation plans approved by security holders	4,183,377	\$ 36.44	2,803,663
Equity compensation plans not approved by security holders	1,360,380	\$ 22.15	
<b>Total</b>	<b>5,543,757</b>	<b>\$ 32.93</b>	<b>2,803,663</b>

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(1) Includes all vested and unvested options outstanding of 5,131,135 and restricted stock units outstanding of 412,622.

**ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE**

The information required by this item is incorporated by reference from the information to be included in the Proxy Statement to be filed pursuant to Regulation 14A with the SEC before April 30, 2009, which Proxy Statement is incorporated by reference.

**ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES**

The information required by this item is incorporated by reference from the information to be included in our Proxy Statement to be filed pursuant to Regulation 14A with the SEC before April 30, 2009, which Proxy Statement is incorporated by reference.

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**PART IV**

**ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES**

**FINANCIAL STATEMENT SCHEDULES**

Financial statement schedules listed in the accompanying index to our financial statements schedules on page F-1 are filed as part of this report, and are included in Item 8.

**EXHIBITS**

The exhibits listed in the accompanying exhibit index on page E-1 are filed as part of this report.

Table of Contents**SIGNATURES**

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

**ARCH CAPITAL GROUP LTD.**

(Registrant)

By: /s/ CONSTANTINE IORDANOU

Name: Constantine Iordanou

Title: *President & Chief Executive Officer*

March 2, 2009

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

Name	Title	Date
<u>/s/ CONSTANTINE IORDANOU</u> Constantine Iordanou	President and Chief Executive Officer (Principal Executive Officer) and Director	March 2, 2009
<u>/s/ JOHN D. VOLLARO</u> John D. Vollaro	Executive Vice President, Chief Financial Officer and Treasurer (Principal Financial and Principal Accounting Officer)	March 2, 2009
<u>*</u> Paul B. Ingrey	Chairman and Director	March 2, 2009
<u>*</u> Wolfe "Bill" H. Bragin	Director	March 2, 2009
<u>*</u> John L. Bunce, Jr.	Director	March 2, 2009
<u>*</u> Sean D. Carney	Director	March 2, 2009
<u>*</u> Kewsong Lee	Director	March 2, 2009



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<b>Name</b>	<b>Title</b>	<b>Date</b>
* _____ James J. Meenaghan	Director	March 2, 2009
* _____ John M. Pasquesi	Director	March 2, 2009
* _____ Robert F. Works _____	Director	March 2, 2009

\*

By John D. Vollaro, as attorney-in-fact and agent, pursuant to a power of attorney, a copy of which has been filed with the Securities and Exchange Commission as Exhibit 24 to this report.

/s/ JOHN D. VOLLARO

\_\_\_\_\_

Name: John D. Vollaro

*Attorney-in-Fact*

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**INDEX TO FINANCIAL STATEMENTS AND SCHEDULES**

	<b>Pages</b>
<b>Arch Capital Group Ltd. and Subsidiaries</b>	
Report of Independent Registered Public Accounting Firm	F-2
Consolidated Balance Sheets at December 31, 2008 and 2007	F-4
Consolidated Statements of Income for the years ended December 31, 2008, 2007 and 2006	F-5
Consolidated Statements of Changes in Shareholders' Equity for the years ended December 31, 2008, 2007 and 2006	F-6
Consolidated Statements of Comprehensive Income for the years ended December 31, 2008, 2007 and 2006	F-7
Consolidated Statements of Cash Flows for the years ended December 31, 2008, 2007 and 2006	F-8
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<b>Schedules</b>	
I. Summary of Investments Other Than Investments in Related Parties at December 31, 2008	S-1
II. Condensed Financial Information of Registrant	S-2
III. Supplementary Insurance Information for the years ended December 31, 2008, 2007 and 2006	S-5
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VI. Supplementary Information for Property and Casualty Underwriters	S-7

Schedules other than those listed above are omitted for the reason that they are not applicable.

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**Report of Independent Registered Public Accounting Firm**

To the Board of Directors and Shareholders of  
Arch Capital Group Ltd.:

In our opinion, the consolidated financial statements listed in the accompanying index, present fairly, in all material respects, the financial position of Arch Capital Group Ltd. and its subsidiaries (the "Company") at December 31, 2008 and December 31, 2007, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2008 in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedules listed in the accompanying index present fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2008, based on criteria established in *Internal Control Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these financial statements and financial statement schedules, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Annual Report on Internal Control over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on these financial statements, on the financial statement schedules, and on the Company's internal control over financial reporting based on our integrated audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included 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. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

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Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ PricewaterhouseCoopers LLP  
New York, New York  
March 2, 2009

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**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**CONSOLIDATED BALANCE SHEETS**

(U.S. dollars in thousands, except share data)

	December 31,	
	2008	2007
<b>Assets</b>		
Investments:		
Fixed maturities available for sale, at market value (amortized cost: 2008, \$8,314,615; 2007, \$7,037,272)	\$ 8,122,221	\$ 7,137,998
Short-term investments available for sale, at market value (amortized cost: 2008, \$478,088; 2007, \$700,262)	479,586	699,036
Investment of funds received under securities lending agreements, at market value (amortized cost: 2008, \$750,330; 2007, \$1,503,723)	730,194	1,503,723
Other investments (cost: 2008, \$125,858; 2007, \$323,950)	109,601	353,694
Investment funds accounted for using the equity method	301,027	235,975
<b>Total investments</b>	<b>9,742,629</b>	<b>9,930,426</b>
Cash	251,739	239,915
Accrued investment income	78,052	73,862
Investment in joint venture (cost: 2008, \$100,000)	98,341	
Fixed maturities and short-term investments pledged under securities lending agreements, at market value	728,065	1,463,045
Premiums receivable	628,951	729,628
Unpaid losses and loss adjustment expenses recoverable	1,729,135	1,609,619
Paid losses and loss adjustment expenses recoverable	63,294	132,289
Prepaid reinsurance premiums	303,707	480,462
Deferred income tax assets, net	60,192	57,051
Deferred acquisition costs, net	295,192	290,059
Receivable for securities sold	105,073	17,359
Other assets	532,175	600,552
<b>Total Assets</b>	<b>\$ 14,616,545</b>	<b>\$ 15,624,267</b>
<b>Liabilities</b>		
Reserve for losses and loss adjustment expenses	\$ 7,666,957	\$ 7,092,452
Unearned premiums	1,526,682	1,765,881
Reinsurance balances payable	138,509	301,309
Senior notes	300,000	300,000
Revolving credit agreement borrowings	100,000	
Securities lending payable	753,528	1,503,723
Payable for securities purchased	123,309	23,155
Other liabilities	574,595	601,936
<b>Total Liabilities</b>	<b>11,183,580</b>	<b>11,588,456</b>
<b>Commitments and Contingencies</b>		
<b>Shareholders' Equity</b>		
Non-cumulative preferred shares (\$0.01 par value, 50,000,000 shares authorized, issued: 13,000,000)	130	130
Common shares (\$0.01 par value, 200,000,000 shares authorized, issued: 2008, 60,511,974; 2007, 67,318,466)	605	673
Additional paid-in capital	994,585	1,451,667
Retained earnings	2,693,239	2,428,117
Accumulated other comprehensive income (loss), net of deferred income tax	(255,594)	155,224

<b>Total Shareholders' Equity</b>	3,432,965	4,035,811
<b>Total Liabilities and Shareholders' Equity</b>	\$ 14,616,545	\$ 15,624,267

See Notes to Consolidated Financial Statements

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**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF INCOME**

(U.S. dollars in thousands, except share data)

	Years Ended December 31,		
	2008	2007	2006
<b>Revenues</b>			
Net premiums written	\$ 2,805,726	\$ 2,901,936	\$ 3,017,418
Decrease in unearned premiums	39,728	42,714	64,247
Net premiums earned	2,845,454	2,944,650	3,081,665
Net investment income	468,080	463,241	377,534
Net realized gains (losses)	(185,101)	28,141	(19,437)
Fee income	4,706	7,536	9,814
Equity in net income (loss) of investment funds accounted for using the equity method	(178,608)	(171)	2,671
Other income	12,282	9,048	431
<b>Total revenues</b>	<b>2,966,813</b>	<b>3,452,445</b>	<b>3,452,678</b>
<b>Expenses</b>			
Losses and loss adjustment expenses	1,848,744	1,644,170	1,790,549
Acquisition expenses	490,509	480,531	543,911
Other operating expenses	395,802	388,138	332,302
Interest expense	23,838	22,093	22,090
Net foreign exchange (gains) losses	(96,585)	43,969	23,933
<b>Total expenses</b>	<b>2,662,308</b>	<b>2,578,901</b>	<b>2,712,785</b>
<b>Income before income taxes</b>	<b>304,505</b>	<b>873,544</b>	<b>739,893</b>
Income taxes:			
Current tax expense	23,160	21,002	18,405
Deferred tax expense (benefit)	(9,621)	(5,401)	8,274
Income tax expense	13,539	15,601	26,679
<b>Net income</b>	<b>290,966</b>	<b>857,943</b>	<b>713,214</b>
Preferred dividends	25,844	25,844	20,655
<b>Net income available to common shareholders</b>	<b>\$ 265,122</b>	<b>\$ 832,099</b>	<b>\$ 692,559</b>
<b>Net income per common share data</b>			
Basic	\$ 4.27	\$ 11.72	\$ 9.46
Diluted	\$ 4.09	\$ 11.28	\$ 9.08
<b>Weighted average common shares and common share equivalents outstanding</b>			
Basic	62,101,203	70,995,672	73,212,432
Diluted	64,789,052	73,762,419	76,246,725

See Notes to Consolidated Financial Statements

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**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY**

(U.S. dollars in thousands)

	Years Ended December 31,		
	2008	2007	2006
<b>Non-Cumulative Preferred Shares</b>			
Balance at beginning of year	130	130	
Series A preferred shares issued			80
Series B preferred shares issued			50
<b>Balance at end of year</b>	<b>130</b>	<b>130</b>	<b>130</b>
<b>Common Shares</b>			
Balance at beginning of year	673	743	733
Common shares issued, net	6	8	10
Purchases of common shares under share repurchase program	(74)	(78)	
<b>Balance at end of year</b>	<b>605</b>	<b>673</b>	<b>743</b>
<b>Additional Paid-in Capital</b>			
Balance at beginning of year	1,451,667	1,944,304	1,595,440
Cumulative effect of change in accounting for unearned stock grant compensation			(9,646)
Series A non-cumulative preferred shares issued			193,377
Series B non-cumulative preferred shares issued			120,881
Common shares issued	4,507	2,577	379
Exercise of stock options	23,812	18,599	27,578
Common shares retired	(515,325)	(539,384)	(1,657)
Amortization of share-based compensation	30,277	24,605	17,259
Other	(353)	966	693
<b>Balance at end of year</b>	<b>994,585</b>	<b>1,451,667</b>	<b>1,944,304</b>
<b>Deferred Compensation Under Share Award Plan</b>			
Balance at beginning of year			(9,646)
Cumulative effect of change in accounting for unearned stock grant compensation			9,646
<b>Balance at end of year</b>			
<b>Retained Earnings</b>			
Balance at beginning of year	2,428,117	1,593,907	901,348
Adjustment to adopt SFAS No. 155, "Accounting for Certain Hybrid Financial Instruments" an amendment of FASB Statements No. 133 and 140"		2,111	
Balance at beginning of year, as adjusted	2,428,117	1,596,018	901,348
Dividends declared on preferred shares	(25,844)	(25,844)	(20,655)
Net income	290,966	857,943	713,214
<b>Balance at end of year</b>	<b>2,693,239</b>	<b>2,428,117</b>	<b>1,593,907</b>
<b>Accumulated Other Comprehensive Income (Loss)</b>			



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Balance at beginning of year	155,224	51,535	(7,348)
Adjustment to adopt SFAS No. 155, "Accounting for Certain Hybrid Financial Instruments an amendment of FASB Statements No. 133 and 140"		(2,111)	
Balance at beginning of year, as adjusted	155,224	49,424	(7,348)
Change in unrealized appreciation (decline) in value of investments, net of deferred income tax	(375,278)	92,657	61,205
Foreign currency translation adjustments, net of deferred income tax	(35,540)	13,143	(2,322)
Balance at end of year	(255,594)	155,224	51,535
<b>Total Shareholders' Equity</b>	<b>\$3,432,965</b>	<b>\$4,035,811</b>	<b>\$3,590,619</b>

See Notes to Consolidated Financial Statements

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**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME**

(U.S. dollars in thousands)

	Years Ended December 31,		
	2008	2007	2006
<b>Comprehensive Income (Loss)</b>			
Net income	\$ 290,966	\$ 857,943	\$ 713,214
Other comprehensive income (loss), net of deferred income tax			
Unrealized appreciation (decline) in value of investments:			
Unrealized holding gains (losses) arising during year	(582,243)	134,783	39,690
Reclassification of net realized (gains) losses, net of income taxes, included in net income	206,965	(42,126)	21,515
Foreign currency translation adjustments	(35,540)	13,143	(2,322)
Other comprehensive income (loss)	(410,818)	105,800	58,883
<b>Comprehensive Income (Loss)</b>	<b>\$(119,852)</b>	<b>\$963,743</b>	<b>\$772,097</b>

See Notes to Consolidated Financial Statements

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**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**

(U.S. dollars in thousands)

	Years Ended December 31,		
	2008	2007	2006
<b>Operating Activities</b>			
Net income	\$ 290,966	\$ 857,943	\$ 713,214
Adjustments to reconcile net income to net cash provided by operating activities:			
Net realized (gains) losses	189,914	(27,912)	21,056
Equity in net (income) loss of investment funds accounted for using the equity method and other income	166,610	(8,877)	(3,102)
Share-based compensation	30,277	24,605	17,259
Changes in:			
Reserve for losses and loss adjustment expenses, net of unpaid losses and loss adjustment expenses recoverable	658,501	569,490	847,826
Unearned premiums, net of prepaid reinsurance premiums	(42,029)	(36,775)	(55,472)
Premiums receivable	8,031	24,414	(77,059)
Deferred acquisition costs, net	(9,626)	997	26,358
Reinsurance balances payable	(153,882)	(3,933)	151,228
Other liabilities	(81,353)	25,961	27,250
Other items, net	81,689	10,543	(59,602)
<b>Net Cash Provided By Operating Activities</b>	<b>1,139,098</b>	<b>1,436,456</b>	<b>1,608,956</b>
<b>Investing Activities</b>			
Purchases of fixed maturity investments	(17,707,833)	(20,454,932)	(15,728,141)
Proceeds from sales of fixed maturity investments	16,471,366	18,919,430	13,860,575
Proceeds from redemptions and maturities of fixed maturity investments	582,346	644,047	513,982
Purchases of other investments	(480,417)	(542,615)	(241,703)
Proceeds from sale of other investments	460,178	204,026	15,192
Investment in joint venture	(100,000)		
Net sales (purchases) of short-term investments	92,053	285,310	(245,005)
Change in investment of securities lending collateral	750,195	(612,347)	2,003
Purchases of furniture, equipment and other assets	(9,501)	(27,996)	(13,240)
<b>Net Cash Provided By (Used For) Investing Activities</b>	<b>58,387</b>	<b>(1,585,077)</b>	<b>(1,836,337)</b>
<b>Financing Activities</b>			
Purchases of common shares under share repurchase program	(513,130)	(537,066)	
Proceeds from common shares issued, net	21,881	13,498	19,683
Revolving credit agreement borrowings	100,000		
Proceeds from preferred shares issued, net of issuance costs			314,388
Change in securities lending collateral	(750,195)	612,347	(2,003)
Excess tax benefits from share-based compensation	2,476	4,923	5,448
Preferred dividends paid	(25,844)	(25,844)	(17,353)
<b>Net Cash Provided By (Used For) Financing Activities</b>	<b>(1,164,812)</b>	<b>67,858</b>	<b>320,163</b>

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Effects of exchange rate changes on foreign currency cash	(20,849)	3,661	1,758
Increase (decrease) in cash	11,824	(77,102)	94,540
Cash beginning of year	239,915	317,017	222,477
<b>Cash end of year</b>	<b>\$ 251,739</b>	<b>\$ 239,915</b>	<b>\$ 317,017</b>
Income taxes paid, net	\$ 11,363	\$ 3,863	\$ 43,967
Interest paid	\$ 23,785	\$ 22,050	\$ 22,050

See Notes to Consolidated Financial Statements

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**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**1. Organization**

Arch Capital Group Ltd. ("ACGL") is a Bermuda public limited liability company which provides insurance and reinsurance on a worldwide basis through its wholly owned subsidiaries.

ACGL was formed in September 2000 and became the sole shareholder of Arch Capital Group (U.S.) Inc. ("Arch-U.S.") pursuant to an internal reorganization transaction completed in November 2000, as described below. Arch-U.S. is a Delaware company formed in March 1995 under the original name of "Risk Capital Holdings, Inc." Prior to May 5, 2000, Arch-U.S. provided reinsurance and other forms of capital for insurance companies through its wholly owned subsidiary, Arch Reinsurance Company ("Arch Re U.S."), a Nebraska corporation formed in 1995 under the original name of "Risk Capital Reinsurance Company."

On May 5, 2000, Arch-U.S. sold the prior reinsurance operations of Arch Re U.S. to White Mountains Reinsurance Company of America ("WTM Re"), formerly known as Folksamerica Reinsurance Company, in an asset sale, but retained its surplus and U.S.-licensed reinsurance platform. 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) related to the transferred business are not included in the Company's balance sheet. However, in the event that WTM Re refuses or is unable to make payment of claims on the reinsurance business assumed by it in the May 2000 sale and the notice given to reinsureds is found not to be an effective release by such reinsureds, Arch Re U.S. would be liable for such claims (see Note 11). On November 8, 2000, following the approval of Arch-U.S.'s shareholders, Arch-U.S. completed an internal reorganization that resulted in Arch-U.S. becoming a wholly owned subsidiary of ACGL.

In October 2001, the Company 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 \$763.2 million.

As used herein, the "Company" means ACGL and its subsidiaries, except when referring to periods prior to November 8, 2000, when it means Arch-U.S. and its subsidiaries. Similarly, "Common Shares" means the common shares, par value \$0.01, of ACGL, except when referring to periods prior to November 8, 2000, when it means the common stock of Arch-U.S.

**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") and include the accounts of ACGL, Arch Reinsurance Ltd. ("Arch Re Bermuda"), Arch Re U.S., Arch-U.S., Arch Insurance Company, Arch Specialty Insurance Company, Arch Excess & Surplus Insurance Company, Arch Indemnity Insurance Company (formerly known as Western Diversified Casualty Insurance Company), Arch Risk Transfer Services Ltd., Arch Insurance Company (Europe) Limited ("Arch Insurance Europe") and Arch Reinsurance Europe Underwriting Limited ("Arch Re Europe"). 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.

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**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**2. Significant Accounting Policies (Continued)**

*(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, construction and surety and 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 or in cases where the amounts reported by brokers and ceding companies are adjusted to reflect management's best judgments and expectations. Premium estimates are derived from multiple sources which include the Company's underwriters, the historical experience of the underlying business, similar business and available industry information. 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, the minimum premium, as defined in the contract, is generally recorded as an estimate of premiums written as of the inception date of the treaty. 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 assumed, 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

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**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**2. Significant Accounting Policies (Continued)**

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.

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 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 unaffiliated reinsurers, consist principally of commissions, brokerage and 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 2008, 2007 or 2006.

***(c) Deposit Accounting***

Certain assumed reinsurance contracts, which pursuant to Statement of Financial Accounting Standards No. 113 ("SFAS No. 113"), "Accounting and Reporting for Reinsurance of Short-Duration and Long-Duration Contracts," issued by the Financial Accounting Standards Board ("FASB"), are deemed not to transfer insurance risk, are accounted for using the deposit method of accounting as prescribed in Statement of Position 98-7 ("SOP 98-7"), "Deposit Accounting: 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 under SFAS No. 113 or deposit insurance contracts under SOP 98-7. Under SOP 98-7, 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

Table of Contents**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****2. Significant Accounting Policies (Continued)**

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 set forth in SOP 98-7 with respect to the revenue recognition criteria for contracts deemed not to transfer insurance risk. Deposit accounting liabilities, which totaled \$39.8 million and \$43.5 million, respectively, at December 31, 2008 and 2007, are included in "Other liabilities" on the Company's balance sheet.

***(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 4). 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. To the extent that any reinsurer does not meet its obligations under reinsurance agreements, the Company must discharge the liability.

***(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.



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**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**2. Significant Accounting Policies (Continued)**

*(g) Investments*

The Company currently classifies all of its fixed maturity investments and short-term investments as "available for sale" and, accordingly, they are carried at estimated market value. The market value of fixed maturity 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 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 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."

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. 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) mutual funds which invest in fixed maturity securities and (ii) privately held securities and other which include the Company's investment in Aeolus LP (see Note 10). Investments in equity securities are carried at estimated market value in accordance with SFAS No. 115, "Accounting for Certain Investments in Debt and Equity Securities" ("SFAS No. 115"). 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.

In accordance with SFAS No. 115, FASB Staff Position Nos. FAS 115-1 and FAS 124-1, "The Meaning of Other-Than-Temporary Impairment and Its Application to Certain Investments" and Securities and Exchange Commission Staff Accounting Bulletin No. 59, "Other-Than-Temporary Impairment of Certain Investments in Debt and Equity Securities," the Company reviews its

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**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**2. Significant Accounting Policies (Continued)**

investments each quarter to determine whether a decline in market value below the amortized cost basis is other-than-temporary. The Company's process for identifying declines in the market value of investments that are other-than-temporary involves consideration of several factors. These factors include (i) the length of the time and the extent to which the market value has been below amortized cost, (ii) an analysis of the liquidity, business prospects and overall financial condition of the issuer and (iii) the Company's intent and ability to hold the investment for a sufficient period of time to allow for any anticipated recovery in market value. Where the Company's analysis of the above factors results in the conclusion that declines in market values are other-than-temporary, the cost basis of the securities is written down to market value and the write-down is reflected as a realized loss. In periods subsequent to the recognition of an other-than-temporary impairment on fixed maturities (other than credit-related impairments), the Company accounts for such securities as if they had been purchased on the measurement date of the other-than-temporary impairment. The discount or reduced premium recorded for the fixed maturities, based on the new cost basis, is accreted or amortized over the remaining life of the fixed maturities into net investment income, as discussed below.

Under SFAS No. 133, "Accounting for Derivative Instruments and Hedging Activities" ("SFAS No. 133"), as amended on January 1, 2001, 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 SFAS No. 133, these instruments, which have no hedging designation, are recognized as assets and liabilities in the Company's balance sheet at market value and changes in market value 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 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.

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## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

**2. Significant Accounting Policies (Continued)***(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. Since the Company has limited historical experience upon which to base such estimates, the estimates are primarily determined based upon industry experience, information used in pricing contracts and policies and management's judgment. The Company's reserving method, to a large extent, has been the expected loss method, which is commonly applied when limited loss experience exists. 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 will be given more 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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**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**2. Significant Accounting Policies (Continued)**

*(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) Earnings Per Common Share Data*

The calculation of basic earnings per common share excludes dilutive securities and is computed by dividing income available to common shareholders by the weighted average number of Common

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## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 2. Significant Accounting Policies (Continued)

Shares, including vested restricted shares, outstanding for the periods. The following table sets forth the computation of basic and diluted earnings per common share:

(U.S. dollars in thousands, except share data)	Years Ended December 31,		
	2008	2007	2006
<b>Basic Earnings Per Common Share:</b>			
Net income	\$ 290,966	\$ 857,943	\$ 713,214
Preferred dividends	(25,844)	(25,844)	(20,655)
Net income available to common shareholders	\$ 265,122	\$ 832,099	\$ 692,559
Divided by:			
Weighted average common shares outstanding	62,101,203	70,995,672	73,212,432
Basic earnings per common share	\$ 4.27	\$ 11.72	\$ 9.46
<b>Diluted Earnings Per Common Share:</b>			
Net income	\$ 290,966	\$ 857,943	\$ 713,214
Preferred dividends	(25,844)	(25,844)	(20,655)
Net income available to common shareholders	\$ 265,122	\$ 832,099	\$ 692,559
Divided by:			
Weighted average common shares outstanding	62,101,203	70,995,672	73,212,432
Effect of dilutive securities:			
Nonvested restricted shares	263,806	180,143	483,703
Stock options(1)	2,424,043	2,586,604	2,550,590
Total shares	64,789,052	73,762,419	76,246,725
Diluted earnings per share	\$ 4.09	\$ 11.28	\$ 9.08

(1)

Certain stock options were not included in the computation of diluted earnings per share where the exercise price of the stock options exceeded the average market price and would have been anti-dilutive or where, when applying the treasury stock method to in-the-money options, the sum of the proceeds, including unrecognized compensation, exceeded the average market price and would have been anti-dilutive. For 2008, 2007 and 2006, the number of stock options excluded were 553,137, 258,946 and 888,172 respectively.

**(l) Share-Based Compensation***Stock Options*

Effective January 1, 2006, the Company adopted the fair value method of accounting for share-based compensation arrangements in accordance with FASB Statement No. 123 (revised 2004), "Share-Based Payment" ("SFAS No. 123(R)"), using the modified prospective method of transition. Under the fair value method of accounting, 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. Such compensation cost is reduced by assumed forfeitures and adjusted based on actual forfeitures until vesting. For awards granted to retirement-eligible employees where no service is required for the



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**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**2. Significant Accounting Policies (Continued)**

employee to retain the award, the grant date fair value is immediately recognized as compensation cost 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.

Under the modified prospective approach, the fair value based method described in SFAS No. 123(R) is applied to new awards granted after January 1, 2006. Additionally, compensation expense for unvested stock options that are outstanding as of January 1, 2006 will be recognized in net income as the requisite service is rendered based on the grant date fair value of those options as previously calculated under pro forma disclosures under SFAS No. 123, "Accounting for Stock-Based Compensation" ("SFAS No. 123"), as amended by SFAS No. 148, "Accounting for Stock-Based Compensation-Transition and Disclosure." Therefore, under the modified prospective method, compensation expense is recognized beginning with the effective date of adoption of SFAS No.123(R) for all stock option awards (i) granted after the effective date of adoption and (ii) granted prior to the effective date of adoption and that remain unvested on the date of adoption.

The share-based compensation expense associated with stock options that have graded vesting features and vest based on service conditions only (i) granted after the effective date of adoption is calculated on a straight-line basis over the requisite service periods of the related options and (ii) granted prior to the effective date of adoption and that remain unvested as of the date of adoption is calculated on a graded-vesting basis as prescribed under FASB Interpretation No. 28, "Accounting for Stock Appreciation Rights and Other Variable Stock Option or Award Plans" an interpretation of APB Opinions No. 15 and 25," over the remaining requisite service periods of the related options. These charges had no impact on the Company's cash flows or total shareholders' equity.

*Restricted Common Shares and Restricted Units*

As discussed above, effective January 1, 2006, the Company adopted the fair value method of accounting for share-based compensation arrangements in accordance with SFAS No. 123(R), which governs the accounting for share-based compensation. Under the fair value method of accounting pursuant to SFAS No. 123(R), the fair value for restricted shares and units is measured by the grant-date price of the Company's shares. 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. Such expense is amortized over the requisite service period of the related awards, which is generally the vesting period unless the employee is retirement-eligible.

The share-based compensation expense associated with restricted share and unit awards that have graded vesting features and vest based on service conditions only (i) granted after the effective date of adoption is calculated on a straight-line basis over the requisite service periods of the related awards and (ii) granted prior to the effective date of adoption and that remain unvested as of the date of adoption is calculated on a graded-vesting basis over the remaining requisite service periods of the related awards. These charges had no impact on the Company's cash flows or total shareholders' equity. See Note 13 for information relating to the Company's restricted share and unit awards.

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**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**2. Significant Accounting Policies (Continued)**

*(m) Goodwill and Intangible Assets*

The goodwill and intangible assets of acquired businesses, which totaled \$27.4 million and \$28.5 million, respectively, at December 31, 2008 and 2007, 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 net tangible assets of the acquired businesses. The Company assesses whether goodwill and intangible assets are impaired by comparing the fair value of each reporting unit to its carrying value, including goodwill and intangible assets. The Company estimates the fair value of each reporting unit by using various methods, including a review of the estimated discounted cash flows expected to be generated by the reporting unit in the future. Such methods include a number of assumptions, including the uncertainty regarding future results and the discount rates used. If the reporting unit's fair value is greater than its carrying value, goodwill and intangible assets are not impaired. Impairment occurs when the implied fair value of a reporting unit's goodwill and intangible assets is less than its carrying value. The implied fair value of goodwill and intangible assets is determined by deducting the fair value of a reporting unit's identifiable assets and liabilities from the fair value of the reporting unit as a whole. The Company conducts its impairment test annually. Additional impairment assessments may be performed on an interim basis if the Company encounters events or changes in circumstances indicating that more likely than not the carrying value of goodwill and intangible assets has been impaired.

*(n) 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.

*(o) Reclassifications*

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, shareholders' equity or cash flows.

*(p) Recent Accounting Pronouncements*

In December 2007, the FASB issued Statement No. 141(R), "Business Combinations" ("SFAS No. 141R"). SFAS No. 141R replaces SFAS No. 141 and provides greater consistency in the accounting and financial reporting of business combinations. SFAS No. 141R requires the acquiring entity in a business combination to recognize all assets acquired and liabilities assumed in the transaction, establishes the acquisition date fair value as the measurement objective for all assets acquired and liabilities assumed, establishes principles and requirements for how an acquirer recognizes and measures any non-controlling interest in the acquiree and the goodwill acquired, and requires the acquirer to disclose the nature and financial effect of the business combination. Among other changes, SFAS No. 141R also requires that "negative goodwill" be recognized in earnings as a gain attributable to the acquisition, that acquisition-related costs are to be recognized separately from the acquisition and expensed as incurred and that any deferred tax benefits resulted in a business combination are recognized in income from continuing operations in the period of the combination. SFAS No. 141R is effective for business combinations for which the acquisition date is on or after the beginning of the



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**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**2. Significant Accounting Policies (Continued)**

first annual reporting period beginning on or after December 15, 2008. The Company does not expect that the adoption of SFAS No. 141R will have a material impact on its consolidated financial position and results of operations.

In December 2007, the FASB issued Statement No. 160, "Noncontrolling Interests in Consolidated Financial Statements - An amendment of ARB No. 51" ("SFAS No. 160"). SFAS No. 160 amends ARB No. 51 to establish accounting and reporting standards for the noncontrolling interest in a subsidiary and for the deconsolidation of a subsidiary. It clarifies that a noncontrolling interest in a subsidiary, which is sometimes referred to as minority interest, is an ownership interest in the consolidated entity that should be reported as equity in the consolidated financial statements. Among other requirements, this statement requires consolidated net income to be reported at amounts that include the amounts attributable to both the parent and the noncontrolling interest. It also requires disclosure, on the face of the consolidated income statement, of the amounts of consolidated net income attributable to the parent and to the noncontrolling interest. This Statement is effective for fiscal years, and interim periods within those fiscal years, beginning on or after December 15, 2008. Earlier adoption is prohibited. The Company does not expect that the adoption of SFAS No. 160 will have a material impact on its consolidated results of operations and financial position.

In March 2008, the FASB issued SFAS No. 161, "Disclosures about Derivative Instruments and Hedging Activities" ("SFAS No. 161"). SFAS No. 161 is intended to improve financial reporting about derivative instruments and hedging activities by requiring enhanced disclosures to enable investors to better understand their effects on an entity's financial position, financial performance, and cash flows. The new standard also improves transparency about the location and amounts of derivative instruments in an entity's financial statements; how derivative instruments and related hedged items are accounted for under Statement 133; and how derivative instruments and related hedged items affect its financial position, financial performance, and cash flows. SFAS No. 161 is effective for financial statements issued for fiscal years and interim periods beginning after November 15, 2008, with early application encouraged. The Company does not expect that the adoption of SFAS No. 161 will have a material impact on its disclosures.

In January 2009, the FASB issued FSP 99-20-1, "Amendments to the Impairment Guidance of EITF Issue No. 99-20" ("FSP 99-20-1"). FSP 99-20-1 amends the impairment guidance in EITF Issue No.99-20, "Recognition of Interest Income and Impairment on Purchased Beneficial Interests and Beneficial Interests That Continue to Be Held by a Transferor in Securitized Financial Assets," to achieve more consistent determination of whether an other-than-temporary impairment has occurred. FSP 99-20-1 also retains and emphasizes the objective of an other than-temporary impairment assessment and the related disclosure requirements in FASB SFAS No. 115 and other related guidance. The FSP was effective for the Company for the 2008 fourth quarter. The adoption did not have a material impact on the Company's consolidated financial position and results of operations.

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**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**3. Segment Information**

The Company classifies its businesses into two underwriting segments—insurance and reinsurance—and corporate and other (non-underwriting). The Company's insurance and reinsurance operating segments each have segment managers who are responsible for the overall profitability of their respective segments and who are directly accountable to the Company's chief operating decision makers, the President and Chief Executive Officer of ACGL and the Chief Financial Officer of ACGL. The chief operating decision makers do not assess performance, measure return on equity or make resource allocation decisions on a line of business basis. The Company determined its reportable operating segments using the management approach described in SFAS No. 131, "Disclosures about Segments of an Enterprise and Related Information."

Management measures segment performance based on underwriting income or loss. The Company does not manage its assets by segment and, accordingly, investment income is not allocated to each underwriting segment. In addition, other revenue and expense items are not evaluated by segment. The accounting policies of the segments are the same as those used for the preparation of the Company's consolidated financial statements. Intersegment business is allocated to the segment accountable for the underwriting results.

The insurance segment consists of the Company's insurance underwriting subsidiaries which primarily write on both an admitted and non-admitted basis. The insurance segment consists of nine product lines: casualty; construction and national accounts; executive assurance; healthcare; professional liability; programs; property, marine and aviation; surety; and other (consisting of collateral protection, excess workers' compensation and employers' liability business and travel and accident business).

The reinsurance segment consists of the Company's reinsurance underwriting subsidiaries. The reinsurance segment generally seeks to write significant lines on specialty property and casualty reinsurance treaties. Classes of business include: casualty; marine and aviation; other specialty; property catastrophe; property excluding property catastrophe (losses on a single risk, both excess of loss and pro rata), including facultative business; and other (consisting of non-traditional and casualty clash business).

Corporate and other (non-underwriting) includes net investment income, other fee income, net of related expenses, other income (loss), other expenses incurred by the Company, interest expense, net realized gains or losses, equity in net income (loss) of investment funds accounted for using the equity method, net foreign exchange gains or losses and income taxes. In addition, corporate and other results include dividends on the Company's non-cumulative preferred shares.

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## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 3. Segment Information (Continued)

The following tables set forth an analysis of the Company's underwriting results by segment, together with a reconciliation of underwriting income to net income:

(U.S. dollars in thousands)	Year Ended December 31, 2008		
	Insurance	Reinsurance	Total
Gross premiums written(1)	\$ 2,490,919	\$ 1,201,903	\$ 3,669,076
Net premiums written(1)	1,657,603	1,148,123	2,805,726
Net premiums earned(1)	\$ 1,675,089	\$ 1,170,365	\$ 2,845,454
Fee income	3,445	1,261	4,706
Losses and loss adjustment expenses	(1,194,528)	(654,216)	(1,848,744)
Acquisition expenses, net	(224,539)	(265,970)	(490,509)
Other operating expenses	(288,883)	(78,421)	(367,304)
Underwriting income (loss)	\$ (29,416)	\$ 173,019	143,603
Net investment income			468,080
Net realized losses			(185,101)
Equity in net income (loss) of investment funds accounted for using the equity method			(178,608)
Other income			12,282
Other expenses			(28,498)
Interest expense			(23,838)
Net foreign exchange gains			96,585
Income before income taxes			304,505
Income tax expense			(13,539)
<b>Net income</b>			290,966
Preferred dividends			(25,844)
<b>Net income available to common shareholders</b>			\$ 265,122
<b>Underwriting ratios</b>			
Loss ratio	71.3%	55.9%	65.0%
Acquisition expense ratio(2)	13.2%	22.7%	17.1%
Other operating expense ratio	17.2%	6.7%	12.9%
<b>Combined ratio</b>	<b>101.7%</b>	<b>85.3%</b>	<b>95.0%</b>

(1)

Certain amounts included in the gross premiums written of each segment are related to intersegment transactions. Accordingly, the sum of gross premiums written for each segment does not agree to the total gross premiums written as shown in the table above due to the elimination of intersegment transactions in the total. The insurance segment and reinsurance segment results include \$1.9 million and \$21.8 million, respectively, of gross and net premiums written and \$0.8 million and \$29.9 million, respectively, of net premiums earned assumed through intersegment transactions.

(2)

The acquisition expense ratio is adjusted to include certain fee income.

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## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 3. Segment Information (Continued)

(U.S. dollars in thousands)	Year Ended December 31, 2007		
	Insurance	Reinsurance	Total
Gross premiums written(1)	\$ 2,660,302	\$ 1,517,645	\$ 4,140,143
Net premiums written(1)	1,717,548	1,184,388	2,901,936
Net premiums earned(1)	\$ 1,702,343	\$ 1,242,307	\$ 2,944,650
Fee income	5,063	2,473	7,536
Losses and loss adjustment expenses	(1,077,769)	(566,401)	(1,644,170)
Acquisition expenses, net	(201,703)	(278,828)	(480,531)
Other operating expenses	(276,388)	(81,059)	(357,447)
Underwriting income	\$ 151,546	\$ 318,492	470,038
Net investment income			463,241
Net realized gains			28,141
Equity in net income (loss) of investment funds accounted for using the equity method			(171)
Other income			9,048
Other expenses			(30,691)
Interest expense			(22,093)
Net foreign exchange losses			(43,969)
Income before income taxes			873,544
Income tax expense			(15,601)
<b>Net income</b>			857,943
Preferred dividends			(25,844)
<b>Net income available to common shareholders</b>			\$ 832,099
<b>Underwriting ratios</b>			
Loss ratio	63.3%	45.6%	55.8%
Acquisition expense ratio(2)	11.7%	22.4%	16.2%
Other operating expense ratio	16.2%	6.5%	12.1%
<b>Combined ratio</b>	<b>91.2%</b>	<b>74.5%</b>	<b>84.1%</b>

(1) Certain amounts included in the gross premiums written of each segment are related to intersegment transactions. Accordingly, the sum of gross premiums written for each segment does not agree to the total gross premiums written as shown in the table above due to the elimination of intersegment transactions in the total. The insurance segment and reinsurance segment results include \$1.0 million and \$36.8 million, respectively, of gross and net premiums written and \$1.0 million and \$40.3 million, respectively, of net premiums earned assumed through intersegment transactions.

(2) The acquisition expense ratio is adjusted to include certain fee income.



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## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 3. Segment Information (Continued)

(U.S. dollars in thousands)	Year Ended December 31, 2006		
	Insurance	Reinsurance	Total
Gross premiums written(1)	\$ 2,624,757	\$ 1,703,796	\$ 4,282,449
Net premiums written(1)	1,652,056	1,365,362	3,017,418
Net premiums earned(1)	\$ 1,600,854	\$ 1,480,811	\$ 3,081,665
Fee income	5,085	4,729	9,814
Losses and loss adjustment expenses	(1,017,263)	(773,286)	(1,790,549)
Acquisition expenses, net	(175,740)	(368,171)	(543,911)
Other operating expenses	(249,637)	(53,533)	(303,170)
Underwriting income	\$ 163,299	\$ 290,550	453,849
Net investment income			377,534
Net realized losses			(19,437)
Equity in net income (loss) of investment funds accounted for using the equity method			2,671
Other income			431
Other expenses			(29,132)
Interest expense			(22,090)
Net foreign exchange losses			(23,933)
Income before income taxes			739,893
Income tax expense			(26,679)
<b>Net income</b>			713,214
Preferred dividends			(20,655)
<b>Net income available to common shareholders</b>			\$ 692,559
<b>Underwriting ratios</b>			
Loss ratio	63.5%	52.2%	58.1%
Acquisition expense ratio(2)	10.8%	24.9%	17.5%
Other operating expense ratio	15.6%	3.6%	9.8%
<b>Combined ratio</b>	<b>89.9%</b>	<b>80.7%</b>	<b>85.4%</b>

(1) Certain amounts included in the gross premiums written of each segment are related to intersegment transactions. Accordingly, the sum of gross premiums written for each segment does not agree to the total gross premiums written as shown in the table above due to the elimination of intersegment transactions in the total. The insurance segment and reinsurance segment results include \$1.0 million and \$45.1 million, respectively, of gross and net premiums written and \$1.9 million and \$48.1 million, respectively, of net premiums earned assumed through intersegment transactions.

(2) The acquisition expense ratio is adjusted to include certain fee income.





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## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 3. Segment Information (Continued)

The following tables set forth, for each of the Company's segments, net premiums written and earned by major line of business together with net premiums written by client and underwriting location:

INSURANCE SEGMENT (U.S. dollars in thousands)	Years Ended December 31,					
	2008		2007		2006	
	Amount	% of Total	Amount	% of Total	Amount	% of Total
<b>Net premiums written(1)</b>						
Property, marine and aviation Programs	\$ 334,635	20.2	\$ 328,967	19.2	\$ 320,928	19.4
Professional liability	270,449	16.3	235,793	13.7	225,653	13.7
Construction and national accounts	246,891	14.9	269,479	15.7	276,081	16.7
Executive assurance	240,458	14.5	227,936	13.3	193,265	11.7
Casualty	193,602	11.7	185,351	10.8	193,694	11.8
Surety	116,096	7.0	183,267	10.7	220,244	13.3
Healthcare	50,376	3.0	56,061	3.3	81,195	4.9
Other(2)	44,596	2.7	63,757	3.7	68,026	4.1
	160,500	9.7	166,937	9.6	72,970	4.4
<b>Total</b>	<b>\$ 1,657,603</b>	<b>100.0</b>	<b>\$ 1,717,548</b>	<b>100.0</b>	<b>\$ 1,652,056</b>	<b>100.0</b>
<b>Net premiums earned(1)</b>						
Property, marine and aviation Programs	\$ 333,777	19.9	\$ 334,877	19.7	\$ 291,119	18.2
Professional liability	257,110	15.3	231,012	13.6	224,841	14.0
Construction and national accounts	256,192	15.3	268,225	15.8	253,109	15.8
Executive assurance	236,007	14.1	213,004	12.5	189,539	11.8
Casualty	181,333	10.8	184,154	10.8	193,295	12.1
Surety	153,200	9.1	201,939	11.9	243,050	15.2
Healthcare	51,556	3.1	67,197	3.9	76,453	4.8
Other(2)	49,754	3.0	68,456	4.0	70,747	4.4
	156,160	9.4	133,479	7.8	58,701	3.7
<b>Total</b>	<b>\$ 1,675,089</b>	<b>100.0</b>	<b>\$ 1,702,343</b>	<b>100.0</b>	<b>\$ 1,600,854</b>	<b>100.0</b>
<b>Net premiums written by client location(1)</b>						
United States	\$ 1,242,906	75.0	\$ 1,323,376	77.1	\$ 1,340,792	81.2
Europe	244,849	14.8	250,824	14.6	182,815	11.0
Other	169,848	10.2	143,348	8.3	128,449	7.8
<b>Total</b>	<b>\$ 1,657,603</b>	<b>100.0</b>	<b>\$ 1,717,548</b>	<b>100.0</b>	<b>\$ 1,652,056</b>	<b>100.0</b>
<b>Net premiums written by underwriting location(1)</b>						
United States	\$ 1,236,712	74.6	\$ 1,309,401	76.2	\$ 1,297,974	78.6
Europe	342,021	20.6	330,746	19.3	269,128	16.3
Other	78,870	4.8	77,401	4.5	84,954	5.1
<b>Total</b>	<b>\$ 1,657,603</b>	<b>100.0</b>	<b>\$ 1,717,548</b>	<b>100.0</b>	<b>\$ 1,652,056</b>	<b>100.0</b>

- (1) Insurance segment results include net premiums written and earned of \$1.9 million and \$0.8 million, respectively, assumed through intersegment transactions for 2008, \$1.0 million and \$1.0 million, respectively, for 2007 and \$1.0 million and \$1.9 million, respectively, for 2006. Insurance segment results exclude premiums written and earned of \$21.8 million and \$29.9 million, respectively, ceded through intersegment transactions for 2008, \$36.8 million and \$40.3 million, respectively, for 2007 and \$45.1 million and \$48.1 million, respectively, for 2006.
- (2) Includes excess workers' compensation, employers' liability business and travel and accident business.

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## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 3. Segment Information (Continued)

REINSURANCE SEGMENT (U.S. dollars in thousands)	Years Ended December 31,					
	2008		2007		2006	
	Amount	% of Total	Amount	% of Total	Amount	% of Total
<b>Net premiums written(1)</b>						
Casualty(2)	\$ 347,198	30.2	\$ 466,209	39.4	\$ 591,219	43.3
Property excluding property catastrophe(3)	328,684	28.6	248,367	21.0	297,080	21.8
Property catastrophe	231,146	20.1	202,203	17.1	146,751	10.7
Other specialty	146,452	12.8	148,776	12.6	218,157	16.0
Marine and aviation	90,733	7.9	110,586	9.3	109,865	8.0
Other	3,910	0.4	8,247	0.6	2,290	0.2
Total	\$ 1,148,123	100.0	\$ 1,184,388	100.0	\$ 1,365,362	100.0
<b>Net premiums earned(1)</b>						
Casualty(2)	\$ 415,983	35.5	\$ 505,578	40.7	\$ 668,086	45.1
Property excluding property catastrophe(3)	278,234	23.8	264,151	21.3	310,042	20.9
Property catastrophe	219,767	18.8	171,496	13.8	176,106	11.9
Other specialty	147,185	12.6	184,597	14.9	220,641	14.9
Marine and aviation	103,649	8.9	104,482	8.4	100,565	6.8
Other	5,547	0.4	12,003	0.9	5,371	0.4
Total	\$ 1,170,365	100.0	\$ 1,242,307	100.0	\$ 1,480,811	100.0
<b>Net premiums written(1)</b>						
Pro rata	\$ 735,655	64.1	\$ 803,352	67.8	\$ 987,391	72.3
Excess of loss	412,468	35.9	381,036	32.2	377,971	27.7
Total	\$ 1,148,123	100.0	\$ 1,184,388	100.0	\$ 1,365,362	100.0
<b>Net premiums earned(1)</b>						
Pro rata	\$ 763,128	65.2	\$ 874,647	70.4	\$ 1,121,329	75.7
Excess of loss	407,237	34.8	367,660	29.6	359,482	24.3
Total	\$ 1,170,365	100.0	\$ 1,242,307	100.0	\$ 1,480,811	100.0
<b>Net premiums written by client location(1)</b>						
United States	\$ 631,896	55.0	\$ 688,841	58.2	\$ 770,309	56.4
Europe	331,072	28.8	258,952	21.9	368,332	27.0
Bermuda	137,215	12.0	179,935	15.2	132,618	9.7
Other	47,940	4.2	56,660	4.7	94,103	6.9
Total	\$ 1,148,123	100.0	\$ 1,184,388	100.0	\$ 1,365,362	100.0
<b>Net premiums written by underwriting location(1)</b>						
Bermuda	\$ 662,896	57.7	\$ 691,782	58.4	\$ 813,356	59.6
United States	419,805	36.6	471,551	39.8	552,006	40.4

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Other	65,422	5.7	21,055	1.8		
Total	\$1,148,123	100.0	\$1,184,388	100.0	\$1,365,362	100.0

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- (1) Reinsurance segment results include net premiums written and earned of \$21.8 million and \$29.9 million, respectively, assumed through intersegment transactions for 2008, \$36.8 million and \$40.3 million, respectively, for 2007 and \$45.1 million and \$48.1 million, respectively, for 2006. Reinsurance segment results exclude premiums written and earned of \$1.9 million and \$0.8 million, respectively, ceded through intersegment transactions for 2008, \$1.0 million and \$1.0 million, respectively, for 2007 and \$1.0 million and \$1.9 million, respectively, for 2006.
- (2) Includes professional liability, executive assurance and healthcare business.
- (3) Includes facultative business.

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## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

**4. Reinsurance**

In the normal course of business, the Company's insurance subsidiaries cede a substantial portion of their premium through pro rata, excess of loss and facultative reinsurance agreements. The Company's 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 the Company's reinsurance subsidiaries, and the ceding company. In addition, the Company's 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, the Company's insurance or reinsurance subsidiaries would be liable for such defaulted amounts (see Note 11). The effects of reinsurance on the Company's written and earned premiums and losses and loss adjustment expenses with unaffiliated reinsurers were as follows:

(U.S. dollars in thousands)	Years Ended December 31,		
	2008	2007	2006
<b>Premiums Written</b>			
Direct	\$ 2,385,807	\$ 2,564,902	\$ 2,572,936
Assumed	1,283,269	1,575,241	1,709,513
Ceded	(863,350)	(1,238,207)	(1,265,031)
Net	\$ 2,805,726	\$ 2,901,936	\$ 3,017,418
<b>Premiums Earned</b>			
Direct	\$ 2,479,271	\$ 2,570,316	\$ 2,480,885
Assumed	1,402,478	1,622,656	1,752,683
Ceded	(1,036,295)	(1,248,322)	(1,151,903)
Net	\$ 2,845,454	\$ 2,944,650	\$ 3,081,665
<b>Losses and Loss Adjustment Expenses</b>			
Direct	\$ 1,717,158	\$ 1,428,610	\$ 1,595,006
Assumed	836,000	759,578	899,877
Ceded	(704,414)	(544,018)	(704,334)
Net	\$ 1,848,744	\$ 1,644,170	\$ 1,790,549

The Company monitors the financial condition of its reinsurers and attempts to place coverages only with substantial, financially sound carriers. At December 31, 2008, approximately 88.5% of the Company's reinsurance recoverables on paid and unpaid losses (not including prepaid reinsurance premiums) of \$1.79 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 7.3% of the Company's total shareholders' equity. At December 31, 2007, approximately 88.5% of the Company's reinsurance recoverables on paid and unpaid losses (not including prepaid reinsurance premiums) of \$1.74 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 5.2%, respectively, of the Company's total shareholders' equity.

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**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**4. Reinsurance (Continued)**

On December 29, 2005, Arch Re Bermuda entered into a quota share reinsurance treaty with Flatiron Re Ltd. ("Flatiron"), a Bermuda reinsurance company, pursuant to which Flatiron assumed a 45% quota share (the "Treaty") of certain lines of property and marine business underwritten by Arch Re Bermuda for unaffiliated third parties for the 2006 and 2007 underwriting years (January 1, 2006 to December 31, 2007). Effective June 28, 2006, the parties amended the Treaty to increase the percentage ceded to Flatiron from 45% to 70% of all covered business bound by Arch Re Bermuda from (and including) June 28, 2006 until (and including) August 15, 2006 provided such business did not incept beyond September 30, 2006. The ceding percentage for all business bound outside of this period continued to be 45%. On December 31, 2007, the Treaty expired by its terms. At December 31, 2008, \$18.3 million of premiums ceded to Flatiron were unearned.

Flatiron is required to contribute funds into a trust for the benefit of Arch Re Bermuda (the "Trust"). Effective June 28, 2006, the parties amended the Treaty to provide that, through the earning of all written premium, the amount required to be on deposit in the Trust, together with certain other amounts, will be an amount equal to a calculated amount estimated to cover ceded losses arising from in excess of two 1-in-250 year events for the applicable forward twelve-month period (the "Requisite Funded Amount"). If the actual amounts on deposit in the Trust, together with certain other amounts (the "Funded Amount"), do not at least equal the Requisite Funded Amount, Arch Re Bermuda will, among other things, recapture unearned premium reserves and reassume losses that would have been ceded in respect of such unearned premiums. No assurances can be given that actual losses will not exceed the Requisite Funded Amount or that Flatiron will make, or will have the ability to make, the required contributions into the Trust.

Arch Re Bermuda pays to Flatiron a reinsurance premium in the amount of the ceded percentage of the original gross written premium on the business reinsured less a ceding commission, which includes a reimbursement of direct acquisition expenses as well as a commission to Arch Re Bermuda for generating the business. The Treaty also provides for a profit commission to Arch Re Bermuda based on the underwriting results for the 2006 and 2007 underwriting years on a cumulative basis. For 2008, \$24.7 million of premiums written, \$151.4 million of premiums earned and \$48.6 million of losses and loss adjustment expenses were ceded to Flatiron by Arch Re Bermuda, compared to \$311.4 million of premiums written, \$282.2 million of premiums earned and \$100.4 million of losses and loss adjustment expenses for 2007 and \$273.2 million of premiums written, \$157.4 million of premiums earned and \$52.2 million of losses and loss adjustment expenses for 2006. Reinsurance recoverables from Flatiron, which is not rated by A.M. Best, were \$148.7 million at December 31, 2008, compared to \$152.6 million at December 31, 2007. As noted above, Flatiron is required to contribute funds into a trust for the benefit of Arch Re Bermuda. The recoverable from Flatiron was fully collateralized through such trust at December 31, 2008 and 2007.

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## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

**5. 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.S. dollars in thousands)	Years Ended December 31,		
	2008	2007	2006
Reserve for losses and loss adjustment expenses at beginning of year	\$7,092,452	\$6,463,041	\$5,452,826
Unpaid losses and loss adjustment expenses recoverable	1,609,619	1,552,157	1,389,768
Net reserve for losses and loss adjustment expenses at beginning of year	5,482,833	4,910,884	4,063,058
Increase (decrease) in net losses and loss adjustment expenses incurred relating to losses occurring in:			
Current year	2,158,914	1,829,534	1,867,344
Prior years	(310,170)	(185,364)	(76,795)
Total net incurred losses and loss adjustment expenses	1,848,744	1,644,170	1,790,549
Foreign exchange (gains) losses	(133,881)	45,192	47,711
Less net losses and loss adjustment expenses paid relating to losses occurring in:			
Current year	305,513	274,102	245,856
Prior years	954,361	843,311	744,578
Total net paid losses and loss adjustment expenses	1,259,874	1,117,413	990,434
Net reserve for losses and loss adjustment expenses at end of year	5,937,822	5,482,833	4,910,884
Unpaid losses and loss adjustment expenses recoverable	1,729,135	1,609,619	1,552,157
Reserve for losses and loss adjustment expenses at end of year	\$7,666,957	\$7,092,452	\$6,463,041

During 2008, the Company recorded a redundancy on net reserves recorded in prior years of approximately \$310.2 million, which consisted of \$231.2 million from the reinsurance segment and \$79.0 million from the insurance segment. Of the net favorable development in the reinsurance segment, \$126.1 million came from property and other short-tail lines, and \$105.1 million came from casualty and other long-tail business. The development resulted from better than anticipated loss emergence. The net favorable development was partially offset by an increase in acquisition expenses of \$11.1 million primarily resulting from profit commissions related to such favorable development. In addition, in its reserving process in 2002 and 2003, the reinsurance segment recognized that there is a possibility that the assumptions made could prove to be inaccurate due to several factors primarily related to the start up nature of its operations. Due to the availability of additional data, and based on reserve analyses, it was determined that it was no longer necessary to continue to include such factors in 2004 or subsequent periods. Based on the level of claims activity reported to date, the reinsurance segment reduced the amount of reserves it had recorded in 2002 and 2003 by \$2.7 million in 2008. Except as discussed above, the estimated favorable development in the reinsurance segment's prior year reserves did not reflect any significant changes in the key assumptions it made to estimate these reserves at December 31, 2007. As a result giving partial weighting to its own experience, the insurance segment reduced loss selections for some lines, in particular those written on a claims-made basis and for which it now believes it has a reasonable level of credible data. The insurance segment's net

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**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**5. Reserve for Losses and Loss Adjustment Expenses (Continued)**

favorable development of \$79.0 million was primarily due to reductions in reserves in medium-tailed and long-tailed lines of business resulting from such changes. The net favorable development was partially offset by an increase in acquisition expenses of \$15.9 million, primarily due to sliding scale arrangements on certain policies.

During 2007, the Company recorded a redundancy on net reserves recorded in prior years of approximately \$185.4 million, which consisted of \$172.7 million from the reinsurance segment and \$12.7 million from the insurance segment. Of the net favorable development in the reinsurance segment, \$110.6 million came from short-tail lines, and \$62.1 million came from longer-tail lines. The development resulted from better than anticipated loss emergence. The net favorable development was partially offset by an increase in acquisition expenses of \$18.5 million. As noted above, in its reserving process in 2002 and 2003, the reinsurance segment recognized that there is a possibility that the assumptions made could prove to be inaccurate due to several factors primarily related to the start up nature of its operations. Due to the availability of additional data, and based on reserve analyses, it was determined that it was no longer necessary to continue to include such factors in 2004 or subsequent periods. Following reserve reviews, and based on the level of claims activity reported to date, the reinsurance segment reduced the amount of reserves it had recorded in 2002 and 2003 by \$10.6 million in 2007. As a result of giving partial weighting to its own experience, the insurance segment reduced loss selections for some lines, in particular those written on a claims-made basis and for which it now has a reasonable level of credible data. The insurance segment's net favorable development of \$12.7 million was primarily due to reductions in reserves in medium-tailed and long-tailed lines of business resulting from such changes, partially offset by adverse development of \$33.3 million from short-tail lines which primarily resulted from higher than expected claims development. The net favorable development was partially offset by an increase in acquisition expenses of \$9.5 million, primarily due to sliding scale arrangements on certain policies.

During 2006, the Company recorded a redundancy on net reserves recorded in prior years of approximately \$76.8 million, which consisted of \$68.5 million from the reinsurance segment and \$8.3 million from the insurance segment. Of the net favorable development in the reinsurance segment, \$37.1 million came from short-tail lines, and \$31.4 million came from longer-tail lines. The development resulted from better than anticipated loss emergence and was net of \$38.1 million of adverse development on the 2005 catastrophic events, primarily in short-tail lines. The net favorable development was partially offset by an increase in acquisition expenses of \$7.8 million. As noted above, in its reserving process in 2002 and 2003, the reinsurance segment recognized that there is a possibility that the assumptions made could prove to be inaccurate due to several factors primarily related to the start up nature of its operations. Following reserve reviews, and based on the level of claims activity reported to date, the reinsurance segment reduced the amount of reserves it had recorded in 2002 and 2003 by \$7.7 million in 2006. As a result of giving partial weighting to its own experience, the insurance segment reduced loss selections for some lines, in particular those written on a claims-made basis and for which it now has a reasonable level of credible data. The insurance segment's net favorable development of \$8.3 million was primarily due to reductions in reserves in medium-tailed and long-tailed lines of business resulting from such changes, partially offset by adverse development of \$44.0 million from short-tail lines which included \$30.8 million of adverse development on the 2005 catastrophic events.



Table of Contents**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****6. Investment in Joint Venture**

In May 2008, the Company 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, each of Arch Re Bermuda and GIC owns 50% of Gulf Re, which has commenced underwriting activities. Gulf Re will initially target the six member states of the Gulf Cooperation Council, which include Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates. The joint venture will write a broad range of property and casualty reinsurance, including aviation, energy, commercial transportation, marine, engineered risks and property, on both a treaty and facultative basis.

The initial total capital of the joint venture consists of \$200.0 million, plus an additional \$200.0 million to be funded equally by the Company and GIC depending on the joint venture's business needs. Gulf Re reported \$204.3 million of total assets, \$7.7 million of total liabilities and \$196.7 million of shareholders' equity at September 30, 2008. For the nine months ended September 30, 2008, Gulf Re reported total revenues of \$3.6 million and a net loss of \$1.8 million. The Company 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.

**7. Investment Information**

The Company's invested assets were as follows:

(U.S. dollars in thousands)	December 31,	
	2008	2007
Fixed maturities available for sale, at market value	\$ 8,122,221	\$ 7,137,998
Fixed maturities pledged under securities lending agreements, at market value(1)	626,501	1,462,826
<b>Total fixed maturities</b>	<b>8,748,722</b>	<b>8,600,824</b>
Short-term investments available for sale, at market value	479,586	699,036
Short-term investments pledged under securities lending agreements, at market value(1)	101,564	219
Other investments	109,601	353,694
Investment funds accounted for using the equity method	301,027	235,975
<b>Total investments</b>	<b>9,740,500</b>	<b>9,889,748</b>
Securities transactions entered into but not settled at the balance sheet date	(18,236)	(5,796)
<b>Total investments, net of securities transactions</b>	<b>\$ 9,722,264</b>	<b>\$ 9,883,952</b>

(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 at December 31, 2008 and 2007 of \$730.2 million and \$1.5 billion, respectively, which is reflected as "investment of funds received under securities lending agreements, at market value" and included the \$728.1 million and \$1.46 billion, respectively, of "fixed maturities and short-term investments pledged under securities lending agreements, at market value."

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## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 7. Investment Information (Continued)

*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:

(U.S. dollars in thousands)	Estimated Market Value	Gross Unrealized Gains	Gross Unrealized Losses	Amortized Cost
<b>December 31, 2008:</b>				
Corporate bonds	\$ 2,019,373	\$ 51,131	\$ (98,979)	\$2,067,221
Mortgage backed securities	1,581,736	23,306	(125,759)	1,684,189
U.S. government and government agencies	1,463,897	77,762	(14,159)	1,400,294
Commercial mortgage backed securities	1,219,737	16,128	(68,212)	1,271,821
Asset backed securities	970,041	1,121	(70,762)	1,039,682
Municipal bonds	965,966	26,815	(1,730)	940,881
Non-U.S. government securities	527,972	33,690	(31,884)	526,166
<b>Total</b>	<b>\$ 8,748,722</b>	<b>\$ 229,953</b>	<b>\$ (411,485)</b>	<b>\$8,930,254</b>
<b>December 31, 2007:</b>				
Corporate bonds	\$ 2,452,527	\$ 40,296	\$ (10,994)	\$2,423,225
Mortgage backed securities	1,234,596	14,211	(4,087)	1,224,472
U.S. government and government agencies	1,165,423	21,598	(447)	1,144,272
Commercial mortgage backed securities	1,315,680	17,339	(558)	1,298,899
Asset backed securities	1,008,030	9,508	(4,030)	1,002,552
Municipal bonds	990,325	13,213	(195)	977,307
Non-U.S. government securities	434,243	28,032	(3,056)	409,267
<b>Total</b>	<b>\$ 8,600,824</b>	<b>\$ 144,197</b>	<b>\$ (23,367)</b>	<b>\$8,479,994</b>

In February 2006, the FASB issued SFAS No. 155, "Accounting for Certain Hybrid Financial Instruments - an amendment of FASB Statements No. 133 and 140" ("SFAS No. 155"). Upon adopting SFAS No. 155 on January 1, 2007, the Company applied the "fair value option" to certain hybrid securities which are included in the Company's fixed maturities and records changes in market value of such securities as realized gains or losses. The fair market values of such securities at December 31, 2008 were approximately \$51.1 million and the Company recorded a realized loss of \$5.4 million on such securities for 2008.

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## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

**7. Investment Information (Continued)**

The contractual maturities of the Company's fixed maturities and fixed maturities pledged under securities lending agreements are shown below. 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.

(U.S. dollars in thousands)	December 31, 2008		December 31, 2007	
	Estimated Market Value	Amortized Cost	Estimated Market Value	Amortized Cost
Maturity				
Due in one year or less	\$ 173,168	\$ 169,187	\$ 149,908	\$ 146,444
Due after one year through five years	2,451,062	2,452,344	2,366,408	2,330,206
Due after five years through 10 years	1,726,742	1,686,575	1,749,911	1,714,010
Due after 10 years	626,236	626,456	776,291	763,411
	4,977,208	4,934,562	5,042,518	4,954,071
Mortgage backed securities	1,581,736	1,684,189	1,234,596	1,224,472
Commercial mortgage backed securities	1,219,737	1,271,821	1,315,680	1,298,899
Asset backed securities	970,041	1,039,682	1,008,030	1,002,552
Total	\$8,748,722	\$8,930,254	\$8,600,824	\$8,479,994

The Company had gross unrealized losses on its fixed maturities of \$411.5 million at December 31, 2008. At December 31, 2008, on a lot level basis, approximately 2,360 security lots out of a total of approximately 3,900 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 \$6.1 million. The Company had gross unrealized losses on its fixed maturities of \$23.4 million at December 31, 2007. At December 31, 2007, on a lot level basis, approximately 1,380 security lots out of a total of approximately 3,900 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 \$0.5 million.

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## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 7. Investment Information (Continued)

The following table provides an analysis of the length of time each of those fixed maturities, fixed maturities pledged under securities lending agreements, equity securities and short-term investments with an unrealized loss has been in a continual unrealized loss position. The information below indicates the potential effect upon future income in the event management later concludes that such declines are considered other-than-temporary.

(U.S. dollars in thousands)	Less than 12 Months		12 Months or More		Total	
	Estimated Market Value	Gross Unrealized Losses	Estimated Market Value	Gross Unrealized Losses	Estimated Market Value	Gross Unrealized Losses
<b>December 31, 2008:</b>						
Fixed maturities and fixed maturities pledged under securities lending agreements:						
Corporate bonds	\$ 870,093	\$ (89,446)	\$ 30,608	\$ (9,533)	\$ 900,701	\$ (98,979)
Mortgage backed securities	417,373	(105,154)	23,295	(20,605)	440,668	(125,759)
U.S. government and government agencies	356,719	(14,159)			356,719	(14,159)
Commercial mortgage backed securities	714,497	(68,210)	52	(2)	714,549	(68,212)
Asset backed securities	888,908	(63,845)	26,185	(6,917)	915,093	(70,762)
Municipal bonds	93,072	(1,730)			93,072	(1,730)
Non-U.S. government securities	223,314	(31,882)	142	(2)	223,456	(31,884)
Total	3,563,976	(374,426)	80,282	(37,059)	3,644,258	(411,485)
Other investments	20,510	(3,649)	13,715	(20,919)	34,225	(24,568)
Short-term investments	33,080	(2,535)			33,080	(2,535)
Total	\$3,617,566	\$ (380,610)	\$ 93,997	\$ (57,978)	\$3,711,563	\$ (438,588)
<b>December 31, 2007:</b>						
Fixed maturities and fixed maturities pledged under securities lending agreements:						
Corporate bonds	\$ 357,771	\$ (10,276)	\$ 26,455	\$ (718)	\$ 384,226	\$ (10,994)
Mortgage backed securities	185,118	(3,804)	7,126	(283)	192,244	(4,087)
U.S. government and government agencies	206,710	(447)			206,710	(447)
Commercial mortgage backed securities	66,401	(381)	33,827	(177)	100,228	(558)
Asset backed securities	183,412	(3,845)	11,221	(185)	194,633	(4,030)
Municipal bonds	22,908	(171)	10,988	(24)	33,896	(195)
Non-U.S. government securities	154,261	(1,987)	42,925	(1,069)	197,186	(3,056)
Total	1,176,581	(20,911)	132,542	(2,456)	1,309,123	(23,367)
Other investments	200,484	(5,342)			200,484	(5,342)
Short-term investments						

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	140,709	(2,955)		140,709	(2,955)
Total	\$ 1,517,774	\$ (29,208)	\$ 132,542	\$ (2,456)	\$ 1,650,316
					\$ (31,664)

Of the \$411.5 million of gross unrealized losses on the Company's fixed maturities at December 31, 2008, \$374.4 million, or 91% of the total gross unrealized losses, were on fixed maturities which were in an unrealized loss position for less than 12 months. In addition, approximately two thirds

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**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**7. Investment Information (Continued)**

of the gross unrealized losses were on fixed maturities where market value was less than 30% below amortized cost while over 93% were on fixed maturities where market value was less than 50% below cost. The Company believes that the gross unrealized losses on its fixed maturities at December 31, 2008 were primarily due to the widening of credit spreads and changes in the interest rate environment that occurred in the second half of 2008. At December 31, 2008, the Company had the ability and intent to hold these fixed maturities until recovery.

The Company reviews its investment portfolio each quarter to determine if declines in value are other-than-temporary. The Company's process for identifying declines in the market value of investments that are other-than-temporary involves consideration of several factors. These factors include (i) the time period in which there has been a significant decline in value, (ii) the liquidity, business prospects and overall financial condition of the issuer, (iii) the significance of the decline and (iv) the Company's intent and ability to hold the investment for a sufficient period of time for the value to recover. When the analysis of the above factors results in the Company's conclusion that declines in market values are other-than-temporary, the cost of the securities is written down to market value and the reduction in value is reflected as a realized loss. In periods subsequent to the recognition of an other-than-temporary impairment on fixed maturities, the Company accounts for such securities as if they had been purchased on the measurement date of the other-than-temporary impairment and the provision for other-than-temporary impairment (reflected as a discount or reduced premium based on the new cost basis) is amortized into net investment income over the remaining life of the fixed maturities, or until such securities are sold.

During 2008, the Company identified approximately 598 fixed maturity securities with a market value of \$422.5 million which were considered to be other-than-temporarily impaired. The cost of such securities was written down to market value and the Company recognized a realized loss of \$155.4 million. During 2007, the Company identified approximately 272 fixed maturity securities with a market value of \$606.8 million which were considered to be other-than-temporarily impaired. The cost of such securities was written down to market value and the Company recognized a realized loss of \$28.1 million. During 2006, the Company identified approximately 423 fixed maturity securities with a market value of \$1.44 billion which were considered to be other-than-temporarily impaired. The cost of such securities was written down to market value and the Company recognized a realized loss of \$31.6 million.

***Securities Lending Agreements***

During 2005, the Company began a securities lending program under which 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." 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 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." At December 31, 2008, the market value and amortized cost of fixed maturities and short-term investments pledged

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## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

**7. Investment Information (Continued)**

under securities lending agreements were \$728.1 million and \$717.2 million, respectively. At December 31, 2007, the market value and amortized cost of fixed maturities and short-term investments pledged under securities lending agreements were \$1.46 billion and \$1.44 billion, respectively.

At December 31, 2008, the market value and amortized cost of the reinvested collateral, shown as "Investment of funds received under securities lending agreements," totaled \$730.2 million and \$753.5 million, respectively, compared to \$1.50 billion at December 31, 2007. At December 31, 2008, the reinvested collateral included sub-prime securities with a market value of \$56.1 million and an average credit quality of "AA+."

*Investment-Related Derivatives*

The Company's investment strategy allows for the use of derivative securities. 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. The market values of those derivatives are based on quoted market prices. At December 31, 2008 and 2007, the notional value of the net long position for equity futures was nil and \$91.2 million, respectively. At December 31, 2008, the notional value of the net long position for Treasury note futures was \$556.3 million, compared to \$61.7 million at December 31, 2007. At December 31, 2008, the notional value of the net long position for U.K. and German government futures was approximately \$363.3 million (at December 31, 2008 foreign currency rates). For 2008, the Company recorded \$20.1 million of net realized gains related to changes in the market value of all futures contracts, compared to \$2.0 million of net realized losses for 2007 and \$2.1 million of net realized gains for 2006.

*Other Investments*

The following table details the Company's other investments:

(U.S. dollars in thousands)	December 31, 2008		December 31, 2007	
	Estimated Market Value	Cost	Estimated Market Value	Cost
Fixed income mutual funds	\$ 39,858	\$ 63,618	\$ 194,090	\$ 198,244
International equity index funds			92,056	68,270
Privately held securities and other	69,743	62,240	67,548	57,436
Total	\$ 109,601	\$ 125,858	\$ 353,694	\$ 323,950

Other investments include: (i) mutual funds which invest in fixed maturity securities and (ii) privately held securities and other which include the Company's investment in Aeolus LP (see Note 10). During 2008, the Company sold its investments in international equity index funds and reduced its ownership in one fixed income mutual fund. In addition, the Company identified two fixed income mutual funds with a market value of \$27.9 million which were considered to be other-than-temporarily impaired. The cost of such funds was written down to market value and the Company recognized a realized loss of \$25.8 million. During 2007, the Company identified one fixed income mutual fund with a market value of \$48.6 million which was considered to be other-than-temporarily impaired. The cost of such fund was written down to market value and the Company recognized a realized loss of \$2.1 million.

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## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 7. Investment Information (Continued)

*Investment Funds Accounted for Using the Equity Method*

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. 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 \$301.0 million at December 31, 2008, compared to \$236.0 million at December 31, 2007. The Company's investment commitments relating to investment funds accounted for using the equity method totaled approximately \$8.3 million at December 31, 2008.

For 2008, the Company recorded \$178.6 million of equity in net loss of investment funds accounted for using the equity method, compared to \$0.2 million for 2007 and equity in net income of \$2.7 million for 2006. As noted above, the Company records such investments on a one month or three month lag. The 2008 amount primarily related to the Company's investments in U.S. and Euro-denominated bank loan funds and resulted from the extreme volatility in the capital and credit markets during September to November 2008 as the market values of the secured loans underlying the holdings in such funds declined significantly.

Three of the Company's investment funds accounted for using the equity method contributed \$145.0 million of the total equity in net loss for 2008. A summary of financial information for these three funds in total as of September 30, 2008 and 2007 and for the nine months ended September 30, 2008 and 2007 is as follows:

(U.S. dollars in thousands)	September 30,	
	2008	2007
Invested assets	\$ 2,206,408	\$ 103,099
Total assets	2,206,759	103,099
Total liabilities	459	
Net assets	\$ 2,206,300	\$ 103,099

(U.S. dollars in thousands)	Nine Months Ended	
	September 30, 2008	September 30, 2007
Total revenues	\$(284,448)	\$(13,383)
Total expenses	5,274	450
Net income (loss)	\$(289,722)	\$(13,833)



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## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

**7. Investment Information (Continued)**

The Company's investments in the three funds totaled \$229.7 million at September 30, 2008. During the 2008 fourth quarter, the Company made a subsequent investment of \$54.0 million in one fund. The carrying value of the Company's investment in the three funds decreased to \$177.5 million at December 31, 2008.

*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 assets on deposit are available to settle insurance and reinsurance liabilities to third parties. The Company also has investments in segregated portfolios primarily to provide collateral or guarantees for letters of credit to third parties.

The following table details the value of restricted assets:

(U.S. dollars in thousands)	December 31,	
	2008	2007
Assets used for collateral or guarantees	\$ 804,934	\$ 736,938
Deposits with U.S. regulatory authorities	264,988	251,586
Trust funds	153,182	133,238
Deposits with non-U.S. regulatory authorities	57,336	46,789
<b>Total restricted assets</b>	<b>\$ 1,280,440</b>	<b>\$ 1,168,551</b>

In addition, Arch Re Bermuda maintains assets in trust accounts as collateral for insurance and reinsurance transactions with affiliated companies. At December 31, 2008 and 2007, such amounts approximated \$4.03 billion and \$3.8 billion, respectively.

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## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 7. Investment Information (Continued)

*Net Investment Income*

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

(U.S. dollars in thousands)	Years Ended December 31,		
	2008	2007	2006
Fixed maturities	\$437,492	\$407,977	\$327,331
Short-term investments	21,006	41,690	45,144
Other(1)	23,473	27,675	16,996
Gross investment income	481,971	477,342	389,471
Investment expenses	(13,891)	(14,101)	(11,937)
Net investment income	\$468,080	\$463,241	\$377,534

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

*Net Realized Gains (Losses)*

Net realized gains (losses) were as follows:

(U.S. dollars in thousands)	Years Ended December 31,		
	2008	2007	2006
Fixed maturities	(\$ 173,165)	\$ 38,611	(\$ 27,379)
Other investments	(35,829)	847	4,186
Other(1)	23,893	(11,317)	3,756
Net realized gains (losses)	(\$ 185,101)	\$ 28,141	(\$ 19,437)

- (1) Includes net realized gains or losses from derivatives, futures contracts and other items.

Proceeds from the sales of fixed maturities during 2008, 2007 and 2006 were \$16.47 billion, \$18.92 billion and \$13.86 billion, respectively. Gross gains of \$250.2 million, \$133.4 million and \$77.3 million were realized on those transactions during 2008, 2007 and 2006, respectively. Gross losses of \$423.3 million, \$94.8 million and \$104.7 million were realized during 2008, 2007 and 2006, respectively. The net realized losses on fixed maturities of \$173.2 million in 2008, net realized gains of \$38.6 million in 2007 and net realized losses on fixed maturities in 2006 of \$27.4 million included provisions of \$155.4 million, \$28.1 million and \$31.6 million, respectively, for declines in the market value of investments held in the Company's available for sale portfolio which were considered to be other-than-temporary, as described above. In addition, net realized losses on other investments in 2008 and 2007 included provisions of \$25.8 million and \$2.1 million, respectively, for declines in the market value of other investments which were considered to be other-than-temporary, as described above.

*Fair Value*

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Effective January 1, 2008, the Company adopted and implemented SFAS No. 159, "The Fair Value Option for Financial Assets and Financial Liabilities Including an Amendment of FASB Statement

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**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**7. Investment Information (Continued)**

No. 115" ("SFAS No. 159"), which provides a fair value option to measure many financial instruments and certain other assets and liabilities at fair value on an instrument-by-instrument basis. The Company did not apply the fair value option on any financial assets or financial liabilities during 2008.

In addition, effective January 1, 2008, the Company adopted and implemented SFAS No. 157, "Fair Value Measurements" ("SFAS No. 157"), which 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. SFAS No. 157 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 October 2008, the FASB issued FSP No. FAS 157-3, "Determining the Fair Value of a Financial Asset When the Market for That Asset Is Not Active" ("FSP FAS 157-3"), with an immediate effective date, including prior periods for which financial statements have not been issued. FSP FAS 157-3 amends SFAS No. 157 to clarify the application of fair value in inactive markets and allows for the use of management's internal assumptions about future cash flows with appropriately risk-adjusted discount rates when relevant observable market data does not exist. The objective of SFAS No. 157 has not changed and continues to be the determination of the price that would be received in an orderly transaction that is not a forced liquidation or distressed sale at the measurement date. The adoption of FSP FAS 157-3 had no impact on the Company's consolidated financial position and results of operations.

SFAS No. 157 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

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 uses quoted values and other data 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

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**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**7. Investment Information (Continued)**

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; and (v) back-testing, which includes randomly selecting purchased or sold securities and comparing the executed prices to the fair value estimates from the pricing service. 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 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.

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 SFAS No. 157 and at December 31, 2008, 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.

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, certain U.S. government and government agencies, non-U.S. government securities, certain short-term securities and certain other investments.

Following further review of the inputs used in the pricing process, 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. As such, the Company transferred \$136.8 million of corporate bonds and \$31.6 million of other investments in to Level 3 during the 2008 fourth quarter. In addition, Level 3 securities include a small number of premium-tax bonds.

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## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

**7. Investment Information (Continued)**

The following table presents the Company's financial assets and liabilities measured at fair value by SFAS No. 157 hierarchy at December 31, 2008:

	December 31, 2008	Fair Value Measurement Using:		
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Fixed maturities(1),(3)	\$ 8,748,722	\$ 241,851	\$ 8,364,300	\$ 142,571
Short-term investments(1)	581,150	474,504	106,646	
Other investments(2)	36,913		(3,426)	40,339
Total	\$ 9,366,785	\$ 716,355	\$ 8,467,520	\$ 182,910

- (1) 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 this table, the Company has excluded the investment of collateral received of \$730.2 million which is reflected as "investment of funds received under securities lending agreements, at fair value" and included the \$728.1 million of "fixed maturities and short-term investments pledged under securities lending agreements, at fair value."
- (2) Excludes the Company's investment in Aeolus LP, which is accounted for using the equity method.
- (3) Consists of (i) three corporate bonds which invest in underlying portfolios of fixed income securities for which there is a low level of transparency around inputs and (ii) a small number of premium-tax bonds.

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 for 2008:

	Fair Value Measurements Using: Significant Unobservable Inputs (Level 3)		
	Fixed Maturities	Other Investments	Total
<b>Year Ended December 31, 2008:</b>			
Beginning balance at January 1, 2008	\$ 3,752	\$ 11,504	\$ 15,256
Total gains or (losses) (realized/unrealized)			
Included in earnings(1)	(780)	757	(23)
Included in other comprehensive income		(2,660)	(2,660)
Purchases, issuances and settlements	2,803	(829)	1,974
Transfers in and/or out of Level 3	136,796	31,567	168,363
Ending balance at December 31, 2008	\$ 142,571	\$ 40,339	\$ 182,910

(1)

Losses on fixed maturities were recorded as a component of net investment income while gains on other investments were recorded in net realized gains.

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## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

**7. Investment Information (Continued)**

The amount of total losses for 2008 included in earnings attributable to the change in unrealized gains or losses relating to assets still held at December 31, 2008 was de minimis.

**8. Other Comprehensive Income (Loss)**

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

(U.S. dollars in thousands)	Before Tax Amount	Tax Expense (Benefit)	Net of Tax Amount
<b>Year Ended December 31, 2008</b>			
Unrealized appreciation (decline) in value of investments:			
Unrealized holding losses arising during year	\$(568,422)	\$ 13,821	\$(582,243)
Less reclassification of net realized losses included in net income	(201,911)	5,054	(206,965)
Foreign currency translation adjustments	(38,079)	(2,539)	(35,540)
Other comprehensive income (loss)	\$(404,590)	\$ 6,228	\$(410,818)
<b>Year Ended December 31, 2007</b>			
Unrealized appreciation (decline) in value of investments:			
Unrealized holding gains arising during year	\$ 143,105	\$ 8,322	\$ 134,783
Less reclassification of net realized gains included in net income	40,182	(1,944)	42,126
Foreign currency translation adjustments	14,920	1,777	13,143
Other comprehensive income (loss)	\$ 117,843	\$ 12,043	\$ 105,800
<b>Year Ended December 31, 2006</b>			
Unrealized appreciation (decline) in value of investments:			
Unrealized holding gains arising during year	\$ 36,884	\$ (2,806)	\$ 39,690
Less reclassification of net realized losses included in net income	(23,192)	(1,677)	(21,515)
Foreign currency translation adjustments	(2,384)	(62)	(2,322)
Other comprehensive income (loss)	\$ 57,692	\$ (1,191)	\$ 58,883

**9. Income Taxes**

ACGL 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. The Company 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, 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.

ACGL 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





Table of Contents**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****9. Income Taxes (Continued)**

under an applicable income tax treaty with the U.S. ACGL 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). ACGL 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 ACGL or its non-U.S. subsidiaries are engaged in a trade or business in the United States. If ACGL or any of its non-U.S. subsidiaries were subject to U.S. income tax, ACGL's shareholders' equity and earnings could be materially adversely affected. ACGL 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 ACGL's subsidiaries and branches are subject to tax are the United States, United Kingdom, Ireland, Canada, Switzerland, Germany and Denmark.

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

(U.S. dollars in thousands)	Years Ended December 31,		
	2008	2007	2006
<b>Current expense:</b>			
U.S. Federal	\$ 16,704	\$ 13,487	\$ 13,430
U.S. State	825	629	1,235
Non-U.S.	5,631	6,886	3,740
	23,160	21,002	18,405
<b>Deferred expense (benefit):</b>			
U.S. Federal	(7,740)	(2,382)	7,210
Non-U.S.	(1,881)	(3,019)	1,064
	(9,621)	(5,401)	8,274
Income tax expense	\$ 13,539	\$ 15,601	\$ 26,679

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

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## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 9. Income Taxes (Continued)

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:

(U.S. dollars in thousands)	Years Ended December 31,		
	2008	2007	2006
Expected income tax expense computed on pre-tax income at weighted average income tax rate	\$ 19,854	\$ 25,894	\$ 36,272
Addition (reduction) in income tax expense (benefit) resulting from:			
Valuation allowance		(1,358)	
Tax-exempt investment income	(11,403)	(9,703)	(6,887)
Meals and entertainment	641	505	404
State taxes, net of U.S. federal tax benefit	536	409	803
U.S. operations' foreign taxes, net of U.S. federal tax benefit	2,133		
Reorganization of foreign branch	589		
Prior year adjustment	253	(512)	523
Other (1)	936	366	(4,436)
Income tax expense	\$ 13,539	\$ 15,601	\$ 26,679

- (1) For 2006, amount includes a tax benefit relating to the reduction of a tax reserve related to transfer pricing in the amount of \$2.6 million.

The Company has net operating loss carryforwards in its U.S. operating subsidiaries totaling \$7.4 million at December 31, 2008. 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 \$1.5 million which will expire December 31, 2017 and an alternative minimum tax ("AMT") credit carryforward in the amount of \$1.5 million which can be carried forward without expiration.

On November 20, 2001, the Company 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 and certain of the AMT credit carryforward is limited to approximately \$5.1 million per year in accordance with Section 382 of the Internal Revenue Code of 1986 as amended (the "Code").

The Company's Swiss branch has a net operating loss carryforward of \$11.5 million which is available to offset income of the Swiss branch until it expires between 2013 and 2015. The Company's Danish subsidiary has a net operating loss carryforward of \$2.1 million which can be carried forward without expiration.

Table of Contents**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****9. Income Taxes (Continued)**

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:

(U.S. dollars in thousands)	December 31,	
	2008	2007
Deferred income tax assets:		
Net operating loss	\$ 4,495	\$ 5,058
Deferred ceding commission	9,969	9,534
AMT credit carryforward	1,549	967
Discounting of net loss reserves	33,607	28,553
Net unearned premium reserve	13,742	13,805
Compensation liabilities	20,676	18,132
Capital loss carryforward		283
Other than temporary impairment on securities	899	2,523
Foreign tax credit carryforward	1,494	
Net unrealized foreign exchange losses	561	
Other, net	3,417	
<b>Total deferred tax assets</b>	<b>90,409</b>	<b>78,855</b>
Deferred income tax liabilities:		
Depreciation and amortization	(2,178)	(1,901)
Deferred acquisition costs, net	(3,142)	(3,104)
Deposit accounting liability	(5,315)	(5,008)
Foreign transaction exchange gains	(419)	(1,299)
Net unrealized foreign exchange gains		(1,977)
Net unrealized appreciation of investments	(16,662)	(7,744)
Other, net	(2,501)	(771)
<b>Total deferred tax liabilities</b>	<b>(30,217)</b>	<b>(21,804)</b>
<b>Net deferred income tax asset</b>	<b>\$ 60,192</b>	<b>\$ 57,051</b>

In September 2006, the FASB issued FASB Interpretation No. 48 ("FIN No. 48"), "Accounting for Uncertainty in Income Taxes," an interpretation of SFAS No. 109, "Accounting for Income Taxes." FIN No. 48 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.

The Company adopted the provisions of FIN No. 48 on January 1, 2007. As prescribed, the cumulative effects of applying FIN 48 is reported as an adjustment to the opening balance of retained earnings. As a result of the adoption on January 1, 2007, the Company's retained earnings remained

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**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**9. Income Taxes (Continued)**

unchanged. As of December 31, 2008 and 2007, the Company's total unrecognized tax benefits, including interest and penalties, were zero.

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 2005. During 2008, the U.S. Internal Revenue Service closed its examination of the Company's U.S. income tax returns for the 2004 tax year with no change.

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, 2008 and 2007, the Company's valuation allowance was zero.

The Company paid income taxes totaling \$11.4 million and \$3.9 million for 2008 and 2007, respectively. As of December 31, 2008, the Company's current income tax recoverable (included in "Other assets") was \$0.2 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 2008, 2007 and 2006, the Company paid approximately \$13.1 million, \$14.5 million and \$16.4 million, respectively, of federal excise taxes. Such amounts are reflected as acquisition expenses in the Company's consolidated statement of income.

**10. 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 Company made its investment in Aeolus on the same economic terms as a fund affiliated with Warburg Pincus, which has invested \$350 million in Aeolus. Funds affiliated with Warburg Pincus owned 6.6% of the Company's outstanding voting shares as of December 31, 2008. In addition, one of the founders of Aeolus is Peter Appel, former President and CEO and a former director of the Company.

**11. 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.

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**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**11. Commitments and Contingencies (Continued)**

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, 2008 and 2007 amounted to \$1.96 billion and \$1.92 billion, respectively, and primarily resulted from reinsurance arrangements 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 2008, approximately 17.0% and 15.3% of the Company's consolidated gross written premiums were generated from or placed by Marsh & McLennan Companies and its subsidiaries and AON Corporation and its subsidiaries, respectively, compared to approximately 19.6% and 16.4% for 2007, respectively, and 18.8% and 15.4% for 2006, respectively. No other broker and no one insured or reinsured accounted for more than 10% of gross premiums written for 2008, 2007 and 2006.

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 shareholders' equity at December 31, 2008 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 totaled approximately \$8.3 million at December 31, 2008.

***Variable Interest Entities***

The Company concluded that, under FASB Interpretation No. 46R ("FIN 46R"), "Consolidation of Variable Interest Entities," that it is required to consolidate the assets, liabilities and results of operations (if any) of a certain managing general agency in which one of its subsidiaries has an investment. Such agency ceased producing business in 1999 and is currently running-off its operations. Based on current information, there are no assets or liabilities of such agency required to be reflected on the face of the Company's consolidated financial statements that are not, or have not been previously, otherwise reflected therein.

On December 29, 2005, Arch Re Bermuda entered into a quota share reinsurance treaty with Flatiron, a Bermuda reinsurance company, pursuant to which Flatiron is assuming a 45% quota share (the "Treaty") of certain lines of property and marine business underwritten by Arch Re Bermuda for unaffiliated third parties for the 2006 and 2007 underwriting years (January 1, 2006 to December 31, 2007). On December 31, 2007, the Treaty expired by its terms. As a result of the terms of the Treaty, the Company has determined that Flatiron is a variable interest entity. However, Arch Re Bermuda is not the primary beneficiary of Flatiron and, as such, the Company is not required to consolidate the assets, liabilities and results of operations of Flatiron per FIN 46R. See Note 4.

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**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**11. Commitments and Contingencies (Continued)**

*Letter of Credit and Revolving Credit Facilities*

As of December 31, 2008, the Company 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"). The \$300 million unsecured revolving loan is also available for the issuance of unsecured letters of credit up to \$100 million for Arch Re U.S. 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 the Company's insurance and reinsurance subsidiaries. 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 the Company 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 shareholders' equity levels. The Company was in compliance with all covenants contained in the Credit Agreement at December 31, 2008. The Credit Agreement expires on August 30, 2011.

Including the secured letter of credit portion of the Credit Agreement and another letter of credit facility (together, the "LOC Facilities"), the Company has access to letter of credit facilities for up to a total of \$1.45 billion. 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 the Company's 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 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 the Company was in compliance with at December 31, 2008. At such date, the Company had approximately \$599.9 million in outstanding letters of credit under the LOC Facilities, which were secured by investments totaling \$697.6 million. In May 2008, the Company borrowed \$100.0 million under the Credit Agreement at a Company-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 to Arch Re Bermuda and used to fund the investment in Gulf Re (see Note 6).

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At December 31, 2008, 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 with remaining non-cancelable terms in excess of one year are as follows:

(U.S. dollars in thousands)	
2009	\$ 15,356
2010	14,506
2011	14,140
2012	12,425
2013	11,747
Thereafter	51,662
Total	\$ 119,836

All of these leases are for the rental of office space, with expiration terms that range from 2010 to 2024. Rental expense, net of income from subleases, was approximately \$17.5 million, \$14.8 million and \$12.9 million for 2008, 2007 and 2006, 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 \$28.5 million and \$22.0 million at December 31, 2008 and 2007, respectively.

*Employment and Other Arrangements*

At December 31, 2008, 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 reinsured. 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



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**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**11. Commitments and Contingencies (Continued)**

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, 2008.

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.

**12. Senior Notes**

On May 4, 2004, ACGL completed a public offering of \$300 million principal amount of 7.35% senior notes ("Senior Notes") due May 1, 2034 and received net proceeds of \$296.4 million. ACGL used \$200 million of the net proceeds to repay all amounts outstanding under a revolving credit agreement. The Senior Notes are ACGL's senior unsecured obligations and rank equally with all of its existing and future senior unsecured indebtedness. Interest payments on the Senior Notes are due on May 1st and November 1st of each year. ACGL may redeem the Senior Notes at any time and from time to time, in whole or in part, at a "make-whole" redemption price. For 2008, 2007 and 2006, interest expense on the Senior Notes was \$22.1 million. The market value of the Senior Notes at December 31, 2008 and 2007 was \$246.1 million and \$325.4 million, respectively.

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## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 13. Share Capital

*Authorized and Issued*

The authorized share capital of the Company consists of 200,000,000 Common Shares, par value of \$0.01 per share, and 50,000,000 Preferred Shares, par value of \$0.01 per share.

*Common Shares*

Changes in the Company's outstanding Common Shares are reflected in the table below:

	Years Ended December 31,		
	2008	2007	2006
<b>Common Shares:</b>			
Balance, beginning of year	67,318,466	74,270,466	73,334,870
Shares issued(1)	695,769	523,723	823,682
Restricted shares issued, net of cancellations	17,345	329,057	139,166
Shares repurchased and retired(2)	(7,519,606)	(7,804,780)	(27,252)
Balance, end of year	60,511,974	67,318,466	74,270,466

(1)

Includes shares issued from the exercise of stock options and, in 2008 and 2007, shares issued from the employee share purchase plan.

(2)

Includes shares repurchased and retired from the share repurchase plan.

*Share Repurchases*

The board of directors of ACGL has authorized the investment of up to \$1.5 billion in ACGL's common shares through a share repurchase program. Such amount consisted of a \$1.0 billion authorization in February 2007 and a \$500 million authorization in May 2008. Repurchases under the program may be effected from time to time in open market or privately negotiated transactions through February 2010. Since the inception of the share repurchase program, ACGL has repurchased approximately 15.3 million common shares for an aggregate purchase price of \$1.05 billion. During 2008, ACGL repurchased approximately 7.5 million common shares for an aggregate purchase price of \$513.1 million, compared to 7.8 million shares repurchased for an aggregate purchase price of \$537.1 million during 2007. As a result of share repurchase transactions, book value per common share was reduced by \$3.52 per share at December 31, 2008. Weighted average shares outstanding for 2008 were reduced by 12.9 million shares, compared to 3.3 million shares for 2007.

At December 31, 2008, approximately \$449.8 million of share repurchases were available under the program. The timing and amount of the repurchase transactions under this program will depend on a variety of factors, including market conditions and corporate and regulatory considerations. In connection with the share repurchase program, the Warburg Pincus funds waived their rights relating to share repurchases under its shareholders agreement with ACGL for all repurchases of common shares by ACGL under the share repurchase program in open market transactions and certain privately negotiated transactions.

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**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**13. Share Capital (Continued)**

*Long Term Incentive and Share Award Plans*

On May 11, 2007, following shareholder approval, the Company 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 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 ESPP. 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 of the Company 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 ESPP 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.

On May 11, 2007, following shareholder approval, the Company 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. The 2007 Plan also provides the Company's non-employee directors with the opportunity to receive the annual retainer fee for Board service in common shares.

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 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.

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 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 the Company's 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, 2008, approximately 2,785,079 shares are available for grant under the 2007 Plan.

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**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**13. Share Capital (Continued)**

In June 2002, following shareholder approval, the Company 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 and directors 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. The 2002 Plan provides the Company's non-employee directors with the opportunity to receive their annual retainer fee for service as a director in Common Shares. As of December 31, 2008, approximately 18,584 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 the Company'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*

The Company generally issues stock options to officers, with exercise prices equal to the fair market values of the Company'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(l) for details related to the Company's accounting for stock options.

As required by the provisions of SFAS No. 123(R), the Company recorded after-tax share-based compensation expense of \$7.2 million related to stock option awards for 2008, net of a tax benefit of \$2.1 million, compared to \$7.2 million related to stock option awards for 2007, net of a tax benefit of \$1.8 million, and \$7.7 million related to stock option awards for 2006, net of a tax benefit of \$1.5 million. As of December 31, 2008, there was approximately \$7.1 million of unrecognized compensation cost related to nonvested stock options. Such cost is expected to be recognized over a weighted average period of 1.3 years.

For purposes of disclosure in the foregoing table and for purposes of determining estimated market value under SFAS No. 123(R), the Company 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. For options granted during 2006 and 2007, the expected life assumption was based on the vesting period, the ten year contractual term of the option awards, the historical share option exercise experience, peer data and guidance from the Securities and Exchange Commission as contained in Staff Accounting Bulletin No. 107 permitting the initial application of a "simplified" method for options granted, which is based on the average of the vesting term and the contractual term of the option. For options granted during 2008, the expected life assumption 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 2008 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 2007 and 2006, the

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## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 13. Share Capital (Continued)

Company based its volatility estimate under the same method used for 2008, using the period from September 20, 2002 through the last day of the applicable period.

	Years Ended December 31,		
	2008	2007	2006
Dividend yield	0.0%	0.0%	0.0%
Expected volatility	20.4%	19.6%	21.3%
Risk free interest rate	3.4%	5.0%	4.6%
Expected option life	5.7 years	6.0 years	6.0 years

The Black-Scholes option pricing model requires the input of highly subjective assumptions. Because the Company'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 result in changes to these assumptions and methodologies, and which could materially impact the Company's fair value determination.

A summary of option activity under the Company's Long Term Incentive and Share Award Plans during 2008 is presented below:

	Year Ended December 31, 2008	
	Number of Options	Weighted Average Exercise Price
Outstanding, beginning of year	5,486,033	\$ 33.45
Granted	334,175	69.31
Exercised	(633,598)	32.41
Forfeited or expired	(55,475)	64.43
Outstanding, end of period	5,131,135	35.58
Exercisable, end of period	4,311,226	30.01

The weighted average grant-date fair value of options granted during 2008, 2007 and 2006 was \$19.07, \$22.48 and \$18.21, respectively. The aggregate intrinsic value of options exercised during 2008, 2007 and 2006 was approximately \$22.6 million, \$20.0 million, and \$27.4 million, respectively and represents the difference between the exercise price of the option and the closing market price of the Company's common shares on the exercise dates.

The aggregate intrinsic value of the Company's outstanding and exercisable stock options at December 31, 2008 was \$177.3 million and \$172.9 million, respectively. The weighted average remaining contractual life of the Company's outstanding and exercisable stock options at December 31, 2008 was 4.7 years and 4.0 years, respectively. During 2008, the Company received proceeds of \$20.0 million from the exercise of stock options and recognized a tax benefit of \$4.5 million from the exercise of such options.

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## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 13. Share Capital (Continued)

*Restricted Common Shares and Restricted Units*

The Company also issues restricted share and unit awards to officers, for which the fair value is equal to the fair market values of the Company's Common Shares on the grant dates. Compensation equal to the fair 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 of the grant date. Refer to Note 2(l) for details related to the Company's accounting for restricted share and unit awards.

The Company recorded \$16.0 million of share-based compensation expense, net of a tax benefit of \$4.1 million, related to restricted share and unit awards for 2008 as required by the provisions of SFAS No.123(R), compared to \$12.9 million, net of a tax benefit of \$2.3 million, for 2007 and \$7.0 million, net of a tax benefit of \$1.1 million, for 2006. As of December 31, 2008, there were \$8.4 million and \$14.1 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 1.2 years and 2.2 years, respectively.

A summary of restricted share and unit activity under the Company's Long Term Incentive and Share Award Plans for 2008 is presented below:

	Restricted Common Shares	Restricted Unit Awards
<b>Non-Vested Shares:</b>		
Unvested balance, beginning of year	451,513	116,453
Granted	16,064	332,275
Vested	(209,189)	(10,357)
Forfeited	(9,076)	(25,749)
Unvested balance, end of year	249,312	412,622
<b>Weighted Average Grant Date Fair Value:</b>		
Unvested balance, beginning of year	\$ 64.13	
Granted	\$ 68.95	
Vested	\$ 62.60	
Forfeited	\$ 68.18	
Unvested balance, end of year	\$ 65.58	

During 2008, 2007 and 2006, the Company granted an aggregate of 348,339, 361,482 and 141,516 restricted share and restricted unit awards, respectively, with weighted average grant date fair values of \$69.25, \$69.94 and \$56.94, respectively. During 2008, 2007 and 2006, the aggregate fair value of restricted shares and units that vested was \$15.3 million, \$14.3 million and \$31.0 million, respectively. The aggregate intrinsic value of restricted units outstanding and exercisable at December 31, 2008 was \$28.9 million and \$5.9 million, respectively. The issuance of restricted shares and units and amortization thereon has no effect on the Company's consolidated shareholders' equity.

Table of Contents**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****13. Share Capital (Continued)***Preferred Shares*

During 2006, ACGL completed two public offerings of non-cumulative preferred shares ("Preferred Shares"). On February 1, 2006, \$200.0 million principal amount of 8.0% series A non-cumulative preferred shares ("Series A Preferred Shares") were issued with net proceeds of \$193.5 million and, on May 24, 2006, \$125.0 million principal amount of 7.875% series B non-cumulative preferred shares ("Series B Preferred Shares") were issued with net proceeds of \$120.9 million. The net proceeds of the offerings were used to support the underwriting activities of ACGL's insurance and reinsurance subsidiaries. ACGL has the right to redeem all or a portion of each series of Preferred Shares at a redemption price of \$25.00 per share on or after (1) February 1, 2011 for the Series A Preferred Shares and (2) May 15, 2011 for the Series B Preferred Shares. Dividends on the Preferred Shares are non-cumulative. Consequently, in the event dividends are not declared on the Preferred Shares for any dividend period, holders of Preferred Shares will not be entitled to receive a dividend for such period, and such undeclared dividend will not accrue and will not be payable. Holders of Preferred Shares will be entitled to receive dividend payments only when, as and if declared by ACGL's board of directors or a duly authorized committee of the board of directors. Any such dividends will be payable from the date of original issue on a non-cumulative basis, quarterly in arrears. To the extent declared, these dividends will accumulate, with respect to each dividend period, in an amount per share equal to 8.0% of the \$25.00 liquidation preference per annum for the Series A Preferred Shares and 7.875% of the \$25.00 liquidation preference per annum for the Series B Preferred Shares. For 2008, 2007 and 2006, the Company paid \$25.8 million, \$25.8 million and \$17.4 million, respectively, to holders of the Preferred Shares. At December 31, 2008, the Company had declared an aggregate of \$3.3 million of dividends to be paid to holders of the Preferred Shares.

*Series A Convertible Preference Shares*

On November 20, 2001, the Company issued 35,687,735 Preference Shares and 3,776,025 Class A Warrants in exchange for \$763.2 million in cash and entered into subscription agreements with investors led by Warburg Pincus and Hellman & Friedman and certain members of management (the "Subscription Agreement"). During the 2005 fourth quarter, all outstanding Preference Shares were converted into Common Shares. Prior to such conversion, the Preference Shares voted, together with the Common Shares, on an as-converted basis. Pursuant to the shareholders agreement, the Company agreed to restrictions on the composition of its Board of Directors. Pursuant to this agreement, Warburg Pincus is entitled (until 2011) to nominate a prescribed number of directors based on the respective retained percentages of their Preference Shares purchased in November 2001. As long as Warburg Pincus retains at least 10% of their original investment, they will be entitled to nominate one director.

In addition, the Company agreed (until 2011) not to declare any dividend or make any other distribution on its Common Shares, and not to repurchase any Common Shares, until it has repurchased from funds affiliated with Warburg Pincus, pro rata, on the basis of the amount of their investment in the Company at the time of such repurchase, Common Shares (which were issued pursuant to the conversion of all outstanding Preference Shares in the 2005 fourth quarter) having an aggregate value of \$250 million, at a per share price acceptable to them. No such shares have yet been repurchased. In connection with the share repurchase program, the Warburg Pincus funds waived their rights relating to share repurchases under its shareholders agreement with ACGL for all repurchases of

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**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**13. Share Capital (Continued)**

common shares by ACGL under the share repurchase program in open market transactions and certain privately negotiated transactions.

*Voting Rights Limitation*

At December 31, 2003, the bye-laws of the Company contain a provision limiting the rights of any U.S. person (as defined in section 7701(a)(30) of the Code), that owns shares of the Company, directly, indirectly or constructively (within the meaning of section 958 of the Code), representing more than 9.9% of the voting power of all shares entitled to vote generally at an election of directors. The votes conferred by such shares or such U.S. person will be reduced by whatever amount is necessary so that after any such reduction the votes conferred by the shares of such person will constitute 9.9% of the total voting power of all shares entitled to vote generally at an election of directors. Notwithstanding this provision, the Board of Directors may make such final adjustments to the aggregate number of votes conferred by the shares of any U.S. person that the Board of Directors considers fair and reasonable in all circumstances to ensure that such votes represent 9.9% of the aggregate voting power of the votes conferred by all shares of the Company entitled to vote generally at an election of directors. The Company will assume that all shareholders (other than Warburg Pincus) are U.S. persons unless they otherwise receive assurance satisfactory to them that they are not U.S. persons.

**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 2008, 2007 and 2006, the Company expensed approximately \$19.6 million, \$15.4 million and \$13.8 million, respectively, related to these retirement plans.

**15. Statutory Information**

*Bermuda*

Under The Insurance Act 1978, as Amended, and Related Regulations of Bermuda (the "Insurance Act"), Arch Re Bermuda, the Company's Bermuda reinsurance and insurance subsidiary, 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 Bermuda 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 Bermuda but Arch Re Bermuda may not deduct more than 25% of gross premiums when computing net premiums written), and (C) 15% of reserves for losses and loss adjustment expenses and other insurance reserves. At December 31, 2008 and 2007, such requirements were met.

Effective for 2008, Arch Re Bermuda is also required to file a new risk based capital model called the Bermuda Statutory Capital Requirement ("BSCR") 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 retained earnings and distributions from additional paid-in-capital are subject to these requirements being met. For all applicable periods presented herein, Arch Re Bermuda satisfied these requirements.



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**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**15. Statutory Information (Continued)**

At December 31, 2008 and 2007, as determined under Bermuda law, Arch Re Bermuda had statutory capital of \$2.21 billion and \$2.0 billion, respectively, and statutory capital and surplus of \$3.36 billion and \$3.73 billion, respectively. Such amounts include interests in U.S. insurance and reinsurance subsidiaries. Arch Re Bermuda recorded statutory net income of \$349.8 million, \$909.1 million and \$774.3 million for 2008, 2007 and 2006, respectively. The primary difference between net income and capital and surplus presented under Bermuda statutory accounting principles and net income and shareholder's equity presented in accordance with U.S. GAAP relates to deferred acquisition costs.

The Bermuda Companies Act 1981 (the "Companies Act") limits Arch Re Bermuda's ability to pay dividends and distributions to shareholders if there are reasonable grounds for believing that: (a) Arch Re Bermuda is, or would after the payment be, unable to pay its liabilities as they become due; or (b) the realizable value of Arch Re Bermuda's 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 Bermuda is restricted with respect to the payment of dividends. Arch Re Bermuda 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 Bermuda Monetary Authority an affidavit stating that it will continue to meet the required margins. In addition, Arch Re Bermuda is prohibited, without prior approval of the Bermuda Monetary Authority, from reducing by 15% or more its total statutory capital, as set out in its previous year's statutory financial statements. Accordingly, Arch Re Bermuda can pay approximately \$834 million to ACGI during 2009 without providing an affidavit to the Bermuda Monetary Authority, as discussed above.

***Ireland***

The Company's Ireland subsidiary, Arch Re Europe, was licensed and authorized by the Irish Financial Services Regulatory Authority ("IFSRA") as a non-life reinsurer in October 2008. 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 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 IFSRA. 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, IFSRA has powers to intervene if a dividend payment were to lead to a breach of regulatory capital requirements.

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**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**15. Statutory Information (Continued)**

*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.

Combined statutory surplus of the Company's U.S. insurance and reinsurance subsidiaries was \$766.0 million and \$719.0 million at December 31, 2008 and 2007, respectively. The Company's U.S. insurance and reinsurance subsidiaries had combined statutory net income of \$46.2 million, \$42.2 million and \$55.1 million for 2008, 2007 and 2006, respectively.

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 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, which is owned by Arch Re Europe and a related holding company, which are subsidiaries of Arch Re Bermuda.

*United Kingdom*

The Company's U.K. subsidiary, Arch Insurance 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. Arch Insurance Europe must file annual audited financial statements in accordance with United Kingdom Generally Accepted Accounting Principles ("U.K. GAAP") with Companies House under the Companies Act 1985 (as amended). In addition, Arch 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 the Company's own individual capital assessment ("ICA") to value capital adequacy. The model the company uses to determine the capital requirement is reviewed and approved by the FSA who then issue an individual capital guidance ("ICG"). For Arch Insurance Europe, the ICG is the same as its own ICA.

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 Arch Re Bermuda. Shareholder's equity of Arch Insurance Europe under U.K. GAAP at December 31, 2008 was

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**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**15. Statutory Information (Continued)**

£58.2 million, or approximately \$83.7 million, compared to £58.6 million, or approximately \$117.1 million, at December 31, 2007. Arch Insurance Europe had U.K. GAAP net income of £0.5 million, or approximately \$0.7 million, for 2008, compared to £2.8 million, or approximately \$5.6 million, for 2007 and £0.8 million, or approximately \$1.5 million, for 2006.

**16. 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, 2008, the Company was not a party to any material litigation or arbitration other than as a part of the ordinary course of business in relation to claims and reinsurance recoverable matters, none of which is expected by management to have a significant adverse effect on the Company's results of operations and financial condition and liquidity.

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## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 17. Unaudited Quarterly Financial Information

Following is a summary of quarterly financial data:

(U.S. dollars in thousands, except share data)	Fourth Quarter	Third Quarter	Second Quarter	First Quarter
<b>2008 Income Statement Data:</b>				
Net premiums written	\$ 615,574	\$ 692,692	\$ 686,118	\$ 811,342
Net premiums earned	\$ 698,514	\$ 733,031	\$ 705,675	\$ 708,234
Fee income	1,456	944	1,238	1,068
Other income	211	3,067	4,968	4,036
Net investment income	111,745	117,022	117,120	122,193
Equity in net income (loss) of investment funds accounted for using the equity method	(174,147)	(1,731)	19,583	(22,313)
Net realized gains (losses)	(102,873)	(105,534)	(12,669)	35,975
Losses and loss adjustment expenses	(490,816)	(548,886)	(404,625)	(404,417)
Acquisition expenses	(123,231)	(133,413)	(119,226)	(114,639)
Other operating expenses	(100,385)	(95,652)	(102,578)	(97,187)
Interest expense	(6,285)	(6,241)	(5,788)	(5,524)
Net foreign exchange gains (losses)	51,479	68,395	298	(23,587)
Income tax (expense) benefit	(2,179)	1,849	(5,253)	(7,956)
Net income (loss)	(136,511)	32,851	198,743	195,883
Preferred dividends	(6,461)	(6,461)	(6,461)	(6,461)
Net income (loss) available to common shareholders	\$ (142,972)	\$ 26,390	\$ 192,282	\$ 189,422
Net income (loss) per common share data				
Basic	\$ (2.38)	\$ 0.44	\$ 3.05	\$ 2.90
Diluted	\$ (2.38)	\$ 0.42	\$ 2.92	\$ 2.78
<b>2007 Income Statement Data:</b>				
Net premiums written	\$ 577,666	\$ 694,630	\$ 757,895	\$ 871,745
Net premiums earned	\$ 712,216	\$ 735,529	\$ 751,412	\$ 745,493
Fee income	1,866	1,610	2,091	1,969
Other income	5,483	2,696	265	604
Net investment income	120,807	118,464	113,923	110,047
Equity in net income (loss) of investment funds accounted for using the equity method	(906)	(5,283)	3,376	2,642
Net realized gains (losses)	18,732	14,147	(3,757)	(981)
Losses and loss adjustment expenses	(395,751)	(402,695)	(425,663)	(420,061)
Acquisition expenses	(111,702)	(131,424)	(117,277)	(120,128)
Other operating expenses	(101,275)	(95,545)	(100,505)	(90,813)
Interest expense	(5,523)	(5,524)	(5,523)	(5,523)
Net foreign exchange losses	(4,121)	(23,656)	(6,450)	(9,742)
Income tax (expense) benefit	1,044	(2,113)	(6,037)	(8,495)
Net income	240,870	206,206	205,855	205,012
Preferred dividends	(6,461)	(6,461)	(6,461)	(6,461)
Net income available to common shareholders	\$ 234,409	\$ 199,745	\$ 199,394	\$ 198,551

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Net income available to common shareholders

Net income per common share data

Basic	\$	3.44	\$	2.87	\$	2.75	\$	2.69
Diluted	\$	3.31	\$	2.76	\$	2.65	\$	2.59

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## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## SUMMARY OF INVESTMENTS

## OTHER THAN INVESTMENTS IN RELATED PARTIES

(U.S. dollars in thousands)

	December 31, 2008		
	Cost or Amortized Cost(1)	Market Value	Amount at Which Shown in the Balance Sheet
Fixed maturities and fixed maturities pledged under securities lending agreements(2):			
Corporate bonds	\$2,067,221	\$2,019,373	\$2,019,373
Mortgage backed securities	1,684,189	1,581,736	1,581,736
U.S. government and government agencies	1,400,294	1,463,897	1,463,897
Commercial mortgage backed securities	1,271,821	1,219,737	1,219,737
Asset backed securities	1,039,682	970,041	970,041
Municipal bonds	940,881	965,966	965,966
Non-U.S. government securities	526,166	527,972	527,972
Total	\$8,930,254	\$8,748,722	\$8,748,722
Other investments(3)	53,181	36,924	36,924
Short-term investments and short-term investments pledged under securities lending agreements(2)	579,652	581,150	581,150
 Total investments(3),(4)	 \$9,563,087	 \$9,366,796	 \$9,366,796

(1) Investments in fixed maturities and short-term investments are shown at amortized cost.

(2) 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 \$730.2 million of collateral received which is reflected as "Investment of funds received under securities lending agreements, at market value" and included the \$728.1 million of "fixed maturities and short-term investments pledged under securities lending agreements, at market value."

(3) Excludes the Company's investment in Aeolus LP, which is accounted for using the equity method.

(4) Includes certain securities transactions entered into but not settled at the balance sheet date. Net of such amounts, total investments at market value were approximately \$9.62 billion. Excludes \$301.0 million of investment funds accounted for 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). Changes in the carrying value of such investments are recorded as 'Equity in net income (loss) of investment funds accounted for using the equity method' rather than as an unrealized gain or loss component of accumulated other comprehensive income in shareholders' equity as are changes in the carrying value of the Company's other fixed income investments.



**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**CONDENSED FINANCIAL INFORMATION OF REGISTRANT**

**Balance Sheet**  
**(Parent Company Only)**  
**(U.S. dollars in thousands)**

	<b>December 31,</b>	
	<b>2008</b>	<b>2007</b>
<b>Assets</b>		
Investments in wholly owned subsidiaries	\$3,825,396	\$4,309,166
Short-term investments available for sale, at market value	8,960	28,688
Cash	7,874	7,631
Other assets	4,394	4,750
<b>Total Assets</b>	<b>\$3,846,624</b>	<b>\$4,350,235</b>
<b>Liabilities</b>		
Senior notes	\$ 300,000	\$ 300,000
Revolving credit agreement borrowings	100,000	
Accounts payable and other liabilities	13,659	14,424
<b>Total Liabilities</b>	<b>413,659</b>	<b>314,424</b>
<b>Shareholders' Equity</b>		
Non-cumulative preferred shares (\$0.01 par value, 50,000,000 shares authorized)		
Series A (issued: 2008 and 2007, 8,000,000)	80	80
Series B (issued: 2008 and 2007, 5,000,000)	50	50
Common shares (\$0.01 par value, 200,000,000 shares authorized, issued: 2008, 60,511,974; 2007, 67,318,466)	605	673
Additional paid-in capital	994,585	1,451,667
Retained earnings	2,693,239	2,428,117
Accumulated other comprehensive income (loss), net of deferred income tax	(255,594)	155,224
<b>Total Shareholders' Equity</b>	<b>3,432,965</b>	<b>4,035,811</b>
<b>Total Liabilities and Shareholders' Equity</b>	<b>\$3,846,624</b>	<b>\$4,350,235</b>



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**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**CONDENSED FINANCIAL INFORMATION OF REGISTRANT (Continued)**

**Statement of Income**  
**(Parent Company Only)**  
**(U.S. dollars in thousands)**

	Years Ended December 31,		
	2008	2007	2006
<b>Revenues</b>			
Net investment income	\$ 506	\$ 1,185	\$ 801
Net realized gains (losses)	1,084	206	(27)
<b>Total revenues</b>	1,590	1,391	774
<b>Expenses</b>			
Operating expenses	29,249	31,560	28,537
Interest expense	23,838	22,093	22,090
<b>Total expenses</b>	53,087	53,653	50,627
<b>Loss before income taxes</b>	(51,497)	(52,262)	(49,853)
Income tax benefit			
<b>Loss before equity in net income of wholly owned subsidiaries</b>	(51,497)	(52,262)	(49,853)
Equity in net income of wholly owned subsidiaries	342,463	910,205	763,067
<b>Net income</b>	290,966	857,943	713,214
Preferred dividends	(25,844)	(25,844)	(20,655)
<b>Net income available to common shareholders</b>	\$ 265,122	\$ 832,099	\$ 692,559

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**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**CONDENSED FINANCIAL INFORMATION OF REGISTRANT (Continued)**

**Statement of Cash Flows**  
**(Parent Company Only)**  
**(U.S. dollars in thousands)**

	Years Ended December 31,		
	2008	2007	2006
<b>Operating Activities</b>			
Net income	\$ 290,966	\$ 857,943	\$ 713,214
Adjustments to reconcile net income to net cash provided by (used for) operating activities:			
Equity in net income of wholly owned subsidiaries	(342,463)	(910,205)	(763,067)
Net realized (gains) losses	(1,084)	(206)	27
Share-based compensation	7,587	9,063	7,639
Dividends received from subsidiary	537,050	602,050	22,050
Net change in other assets and liabilities	(145)	12,645	11,042
<b>Net Cash Provided By (Used For) Operating Activities</b>	<b>\$ 491,911</b>	<b>571,290</b>	<b>(9,095)</b>
<b>Investing Activities:</b>			
Purchases of fixed maturity investments			
Proceeds from sales of fixed maturity investments			628
Net (purchases) sales of short-term investments	20,909	(22,540)	6,847
Change in investment of funds received under securities lending agreements, at market value			691
Capital contributed to subsidiaries	(100,000)		(314,350)
Purchase of furniture, equipment and other		(30)	
<b>Net Cash Used For Investing Activities</b>	<b>(79,091)</b>	<b>(22,570)</b>	<b>(306,184)</b>
<b>Financing Activities:</b>			
Purchases of common shares under share repurchase program	(513,130)	(537,066)	
Proceeds from common shares issued, net	21,881	13,498	19,683
Proceeds from preferred shares issued, net of issuance costs			314,388
Revolving credit agreement borrowings	100,000		
Change in securities lending collateral			(691)
Proceeds from subsidiaries for share-based compensation	4,516		
Preferred dividends paid	(25,844)	(25,844)	(17,353)
<b>Net Cash (Used For) Provided By Financing Activities</b>	<b>(412,577)</b>	<b>(549,412)</b>	<b>316,027</b>
Increase (decrease) in cash	243	(692)	748
Cash beginning of year	7,631	8,323	7,575
Cash end of year	7,874	\$ 7,631	\$ 8,323

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**SUPPLEMENTARY INSURANCE INFORMATION**  
(U.S. dollars in thousands)

	Deferred Acquisition Costs, Net	Reserves for Losses and Loss Adjustment Expenses	Unearned Premiums	Net Premiums Earned	Net Investment Income(1)	Net Losses and Loss Adjustment Expenses Incurred	Amortization of Deferred Acquisition Costs	Other Operating Expenses(2)	Net Premiums Written
<b>December 31, 2008</b>									
Insurance	\$ 147,134	\$ 4,818,219	\$ 946,461	\$ 1,675,089	NM	\$ 1,194,528	\$ 224,539	\$ 288,883	\$ 1,657,603
Reinsurance	148,058	2,848,738	580,221	1,170,365	NM	654,216	265,970	78,421	1,148,123
Total	\$ 295,192	\$ 7,666,957	\$ 1,526,682	\$ 2,845,454	NM	\$ 1,848,744	\$ 490,509	\$ 367,304	\$ 2,805,726
<b>December 31, 2007</b>									
Insurance	\$ 146,455	\$ 4,301,647	\$ 1,028,785	\$ 1,702,343	NM	\$ 1,077,769	\$ 201,703	\$ 276,388	\$ 1,717,548
Reinsurance	143,604	2,790,805	737,096	1,242,307	NM	566,401	278,828	81,059	1,184,388
Total	\$ 290,059	\$ 7,092,452	\$ 1,765,881	\$ 2,944,650	NM	\$ 1,644,170	\$ 480,531	\$ 357,447	\$ 2,901,936
<b>December 31, 2006</b>									
Insurance	\$ 125,001	\$ 3,806,618	\$ 1,011,490	\$ 1,600,854	NM	\$ 1,017,263	\$ 175,740	\$ 249,637	\$ 1,652,056
Reinsurance	165,998	2,656,422	780,432	1,480,811	NM	773,286	368,171	53,533	1,365,362
Total	\$ 290,999	\$ 6,463,040	\$ 1,791,922	\$ 3,081,665	NM	\$ 1,790,549	\$ 543,911	\$ 303,170	\$ 3,017,418

(1) The Company does not manage its assets by segment and, accordingly, net investment income is not allocated to each underwriting segment. See Note 3.

(2) Certain other operating expenses relate to the Company's corporate and other segment (non-underwriting). Such amounts are not reflected in the table above. See Note 3.

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**REINSURANCE**  
(U.S. dollars in thousands)

	Gross Amount	Ceded to Other Companies(1)	Assumed From Other Companies(1)	Net Amount	Percentage of Amount Assumed to Net
<b>Year Ended December 31, 2008</b>					
Premiums Written:					
Insurance	\$2,385,790	\$ (833,316)	\$ 105,129	\$1,657,603	6.3%
Reinsurance	17	(53,780)	1,201,886	1,148,123	104.7%
<b>Total</b>	<b>\$2,385,807</b>	<b>\$ (863,350)</b>	<b>\$ 1,283,269</b>	<b>\$2,805,726</b>	<b>45.7%</b>
<b>Year Ended December 31, 2007</b>					
Premiums Written:					
Insurance	\$2,563,011	\$ (942,754)	\$ 97,291	\$1,717,548	5.7%
Reinsurance	1,891	(333,257)	1,515,754	1,184,388	128.0%
<b>Total</b>	<b>\$2,564,902</b>	<b>\$ (1,238,207)</b>	<b>\$ 1,575,241</b>	<b>\$2,901,936</b>	<b>54.3%</b>
<b>Year Ended December 31, 2006</b>					
Premiums Written:					
Insurance	\$2,572,775	\$ (972,701)	\$ 51,982	\$1,652,056	3.1%
Reinsurance	161	(338,434)	1,703,635	1,365,362	124.8%
<b>Total</b>	<b>\$2,572,936</b>	<b>\$ (1,265,031)</b>	<b>\$ 1,709,513</b>	<b>\$3,017,418</b>	<b>56.7%</b>

(1)

Certain amounts included in the gross premiums written of each segment are related to intersegment transactions and are included in the gross premiums written of each segment. Accordingly, the sum of gross premiums written for each segment does not agree to the total gross premiums written as shown in the table above due to the elimination of intersegment transactions in the total. For 2008, 2007 and 2006, the insurance segment results include \$1.9 million, \$1.0 million and \$1.0 million, respectively, of gross premiums written and assumed through intersegment transactions. For 2008, 2007 and 2006, the reinsurance segment results include \$21.8 million, \$36.8 million and \$45.1 million, respectively, of gross premiums written and assumed through intersegment transactions. See Note 3.

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**SUPPLEMENTARY INFORMATION FOR PROPERTY AND CASUALTY INSURANCE UNDERWRITERS**  
(U.S. dollars in thousands)

Column A	Column B	Column C	Column D	Column E	Column F	Column G	Column H	Column I	Column J	Column K
Affiliation with Registrant	Deferred Acquisition Costs, Net	Reserves for Losses and Loss Adjustment Expenses	Discount, if any, deducted in Column C	Unearned Premiums	Net Premiums Earned	Net Investment Income(1)	Net Losses and Loss Adjustment Expenses Incurred Related to (a) Current Year (b) Prior Years	Amortization of Deferred Acquisition Costs	Net Paid Losses and Loss Adjustment Expenses	Net Premiums Written
<b>Insurance</b>										
2008	\$ 147,134	\$ 4,818,219	\$ 4,904	\$ 946,461	\$ 1,675,089	NM	\$ 1,273,482 \$ (78,954)	\$ 224,539	\$ 739,976	\$ 1,657,603
2007	146,455	4,301,647	2,081	1,028,785	1,702,343	NM	1,090,423 (12,654)	201,703	603,156	1,717,548
2006	125,001	3,806,618		1,011,490	1,600,854	NM	1,025,564 (8,301)	175,740	518,662	1,652,056
<b>Reinsurance</b>										
2008	\$ 148,058	\$ 2,848,738	\$	\$ 580,221	\$ 1,170,365	NM	\$ 885,432 \$(231,216)	\$ 265,970	\$ 519,898	\$ 1,148,123
2007	143,604	2,790,805		737,096	1,242,307	NM	739,108 (172,707)	278,828	514,257	1,184,388
2006	165,998	2,656,422		780,432	1,480,811	NM	841,780 (68,494)	368,171	471,772	1,365,362

- (1) The Company does not manage its assets by segment and, accordingly, net investment income is not allocated to each underwriting segment. See Note 3.

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<b>Exhibit Number</b>	<b>Description</b>
3.1	Memorandum of Association of Arch Capital Group Ltd. ("ACGL")(l)
3.2	Bye-Laws of ACGL(l)
3.3.1	Form of Amended and Restated Bye-law 45 and Bye-law 75(p)
3.3.2	Form of Amended and Restated Bye-law 20(r)
4.1.1	Certificate of Designations of Series A Non-Cumulative Preferred Shares(jj)
4.1.2	Certificate of Designations of Series B Non-Cumulative Preferred Shares(nn)
4.2.1	Specimen Common Share Certificate(n)
4.2.2	Specimen Series A Non-Cumulative Preferred Share Certificate(jj)
4.2.3	Specimen Series B Non-Cumulative Preferred Share Certificate(nn)
4.3	Shareholders Agreement, dated as of November 20, 2001, by and among ACGL and the shareholders party thereto, conformed to reflect amendments dated as of January 3, 2002, March 15, 2002 and September 16, 2002(u)
4.4	Subscription Agreement, dated as of October 24, 2001, by and among ACGL and the purchasers party thereto, conformed to reflect amendments dated as of November 20, 2001, January 3, 2002, March 15, 2002 and January 20, 2003 ("Subscription Agreement")(u)
4.5	Agreement, dated as of January 27, 2004, by and among ACGL and the parties thereto, relating to the Subscription Agreement(w)
4.6	Indenture and First Supplemental Indenture, dated as of May 4, 2004, between ACGL and JPMorgan Chase Bank, N.A. (formerly JPMorgan Chase Bank) ("JPMCB")(x)
10.1.1	Lease Agreement, dated as of September 26, 2002, between Arch Insurance Company ("Arch Insurance") and BFP One Liberty Plaza Co. LLC ("BFP") ("Lease")(u)
10.1.2	First Lease Modification Agreement, dated as of May 7, 2003, to the Lease(v)
10.1.3	Second Lease Modification Agreement, dated as of July 31, 2003, to the Lease(v)
10.1.4	Third Lease Modification Agreement, dated as of February 18, 2004, to the Lease(w)
10.1.5	Fourth Lease Modification Agreement, dated as of May 13, 2004, to the Lease(gg)
10.1.6	Fifth Lease Modification Agreement, dated as of December 15, 2005, to the Lease(kk)
10.1.7	Sixth Lease Modification Agreement, dated as of March 29, 2007, to the Lease(tt)
10.1.8	Sublease Agreement relating to the Lease between Arch Insurance and BFP, dated as of July 21, 2008 (filed herewith)
10.2	Lease Agreement, dated as of July 22, 2008, between M-C Plaza II & II L.L.C. and Arch Insurance (filed herewith)
10.3.1	ACGL 1995 Long Term Incentive and Share Award Plan ("1995 Stock Plan")(b)
10.3.2	First Amendment to the 1995 Stock Plan(c)
10.4	ACGL 1999 Long Term Incentive and Share Award Plan(g)
10.5.1	ACGL Long Term Incentive Plan for New Employees ("2001 Plan")(q)
10.5.2	First Amendment to the 2001 Plan (filed herewith)
10.6.1	ACGL 2002 Long Term Incentive and Share Award Plan ("2002 Plan")(t)
10.6.2	First Amendment to the 2002 Plan(v)
10.6.3	Second Amendment to the 2002 Plan (filed herewith)
10.7	Second Amended and Restated ACGL Incentive Compensation Plan (filed herewith)
10.8	ACGL 2007 Long Term Incentive and Share Award Plan(pp)
10.9.1	ACGL 2007 Employee Share Purchase Plan ("2007 ESPP")(pp)
10.9.2	Amendment to ACGL 2007 ESPP, dated as of November 7, 2007(tt)
10.10.1	Restricted Share Agreements with ACGL Executive Officers of ACGL September 19, 1995 grants(d)
10.10.2	Restricted Share Agreements with ACGL Marc Grandisson October 23, 2001 grant(o), February 26, 2004 grant(bb), September 22, 2004 grant(y) and November 15, 2005 grant(kk)

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<b>Exhibit Number</b>	<b>Description</b>
10.10.3	Restricted Share Agreement with ACGL W. Preston Hutchings July 1, 2005(kk)
10.10.4	Restricted Share Agreements with ACGL Louis T. Petrillo January 30, 2001 grant(o), February 20, 2003 grant(w) and September 22, 2004 grant(y)
10.10.5	Restricted Share Agreements with ACGL Constantine Iordanou January 1, 2002 grants(p), February 26, 2004 grant(bb) and September 22, 2004 grant(y)
10.10.6	Restricted Share Agreements with ACGL John D. Vollaro January 18, 2002 grant ("January Restricted Share Agreement")(s), February 20, 2003 grant(w), Amendment No. 1 to January Restricted Share Agreement(u) and September 22, 2004 grant(y)
10.10.7	Restricted Share Agreement with ACGL substantially in the form signed by Constantine Iordanou, John D. Vollaro and Marc Grandisson May 11, 2007 grant(tt)
10.10.8	Restricted Share Agreement with ACGL substantially in the form signed by W. Preston Hutchings and Louis T. Petrillo May 11, 2007 grant(tt)
10.10.9	Restricted Share Unit Agreement, dated as of February 20, 2003, between ACGL and Constantine Iordanou(w) and Amendment to same, dated December 9, 2008 (filed herewith)
10.10.10	Restricted Share Unit Agreement with ACGL substantially in the form signed by each of Constantine Iordanou, John D. Vollaro, Marc Grandisson, W. Preston Hutchings, Mark D. Lyons and Louis T. Petrillo(xx)
10.10.11	Restricted Share Unit Agreement with ACGL Mark D. Lyons May 9, 2008(xx)
10.10.12	Agreement, dated as of September 17, 2003, between ACGL and John D. Vollaro(w)
10.10.13	Restricted Share Agreements with ACGL substantially in the form signed by the Non-Employee Directors of ACGL 2003 annual grants(aa), 2004 annual grants(z), 2005 annual grants(tt) and 2008 annual grants (filed herewith)
10.10.14	Restricted Share Agreements with Constantine Iordanou, John D. Vollaro and Marc Grandisson February 23, 2006(oo)
10.10.15	Restricted Share Agreements with W. Preston Hutchings and Louis T. Petrillo February 23, 2006(oo)
10.11.1	Stock Option Agreements with ACGL Executive Officers of ACGL 1995 and 1996 grants(d), 1997 and 1998 grants(f) and 2000 grants(m)
10.11.2	Amendments to Stock Option Agreements with ACGL Executive Officers and Directors of ACGL (dated May 5, 2000)(n)
10.11.3	Stock Option Agreements with ACGL Non-Employee Directors of ACGL initial grants(f)(i), 1996 and 1997 annual grants(c), 1998 annual grants(e), 1999 annual grants(f), 2000 annual grants(i) and 2001 annual grants(n)
10.11.4	Stock Option Agreements with ACGL Louis T. Petrillo January 30, 2001 grant(o), October 23, 2001 grant(o) and September 22, 2004 grant(y)(ee)
10.11.5	Stock Option Agreements with ACGL Marc Grandisson October 23, 2001 grant(o), September 22, 2004 grant(y)(ee) and November 15, 2005(kk)
10.11.6	Stock Option Agreement, dated July 1, 2005, between ACGL and W. Preston Hutchings(kk)
10.11.7	Amended and Restated Stock Option Agreement, dated as of October 23, 2001, between ACGL and Paul Ingrey(u)
10.11.8	Stock Option Agreements with ACGL John M. Pasquesi October 23, 2001 grants(p)
10.11.9	Stock Option Agreements with ACGL Constantine Iordanou January 1, 2002 grant(p) and September 22, 2004 grant(y)(ff)
10.11.10	Stock Option Agreements with ACGL John D. Vollaro January 18, 2002 grant(s) and September 22, 2004 grant(y)(ff)
10.11.11	Stock Option Agreements with Constantine Iordanou, John D. Vollaro and Marc Grandisson February 23, 2006(oo)
10.11.12	Stock Option Agreements with W. Preston Hutchings and Louis T. Petrillo(oo)

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<b>Exhibit Number</b>	<b>Description</b>
10.12.1	Share Appreciation Right Agreement with ACGL substantially in the form signed by Louis T. Petrillo and W. Preston Hutchings May 11, 2007 grant(tt)
10.12.2	Share Appreciation Right Agreement with ACGL substantially in the form signed by Constantine Iordanou, John D. Vollaro and Marc Grandisson May 11, 2007 grant(tt)
10.12.3	Share Appreciation Right Agreement with ACGL substantially in the form signed by each of Constantine Iordanou, John D. Vollaro, Marc Grandisson, W. Preston Hutchings, Mark D. Lyons and Louis T. Petrillo May 9, 2008 grant(xx)
10.13	Employment and Change in Control Agreement, dated as of May 5, 2000, between ACGL and Louis T. Petrillo(k) and Amendment to Change in Control Agreement, dated as of December 31, 2008 (filed herewith)
10.14	Employment Agreement, dated as of October 23, 2001, among ACGL, Arch Re Bermuda and Marc Grandisson(p), First Amendment to same, dated as of November 16, 2005(kk) and Second Amendment to same, dated as of November 24, 2008 (filed herewith)
10.15	Employment Letter Agreement, dated as of May 29, 2005, between ACGL and W. Preston Hutchings(hh) and Amendment to same, dated as of May 21, 2008(vv)
10.16	Employment Agreement, dated as of November 28, 2007 between ACGL and Constantine Iordanou(rr) and Amendment to same, dated as of December 31, 2008 (filed herewith)
10.17	Employment Agreement, dated as of October 27, 2008, between ACGL and John D. Vollaro(ww)
10.18	Agreement, dated as of September 6, 2005, between ACGL and Robert Clements(ii)
10.19	Employment Agreement, dated as of December 2, 2008, between ACGL and Paul Ingrey (filed herewith)
10.20	Employment Agreement, dated as of October 22, 2008, between ACGL and John C.R. Hele(ww)
10.21	Employment Agreement, dated as of August 1, 2006, between Arch Insurance Group Inc. and Mark D. Lyons (filed herewith) and Amendment to same, dated as of November 24, 2008 (filed herewith)
10.22	Assumption of Change in Control Agreements(n)
10.23	ACGL 1995 Employee Stock Purchase Plan(a)
10.24	Arch Capital Group (U.S.) Inc. ("Arch U.S.") Executive Supplemental Non-Qualified Savings and Retirement Plan (filed herewith)
10.25	Asset Purchase Agreement, dated as of January 10, 2000, by and among Arch U.S., Folksamerica Holding Company, Inc. ("FHC") and Folksamerica(h)
10.26	Transfer and Assumption Agreement, dated May 5, 2000, between Arch Reinsurance Company (formerly Risk Capital Reinsurance Company) ("Arch Re U.S.") and Folksamerica(j)
10.27	Escrow Agreement, dated December 28, 2000, by and among ACGL, FHC, Folksamerica and the Escrow Agent(n)
10.28	Agreement, dated May 5, 2000, by and among Arch U.S., Arch Re U.S., FHC and Folksamerica regarding Aviation Business(l)
10.29	Agreement and Plan of Merger, dated as of September 25, 2000, by and among Arch U.S., ACGL, The Arch Purpose Trust and Arch Merger Corp.(l)
10.30	Agreement, dated November 20, 2001, by and among ACGL, Warburg Pincus Private Equity VIII, L.P., Warburg Pincus International Partners, L.P., Warburg Pincus Netherlands International Partners I, C.V., Warburg Pincus Netherlands International II, C.V. and HFCP IV (Bermuda), L.P. (collectively, the "Original Signatories") and Orbital Holdings, Ltd.(p)
10.31	Agreement, dated November 20, 2001, by and among ACGL, the Original Signatories and Insurance Private Equity Investors, L.L.C.(p)



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<b>Exhibit Number</b>	<b>Description</b>
10.32	Agreement, dated November 20, 2001, by and among ACGL, the Original Signatories and Farallon Capital Partners, L.P., Farallon Capital Institutional Partners II, L.P., Farallon Capital Institutional Partners III, L.P. and RR Capital Partners, L.P.(p)
10.33	Agreement, dated as of November 8, 2001, by and among ACGL, the Original Signatories, Trident, Trident II, L.P., Marsh & McLennan Risk Capital Holdings, Ltd., Marsh & McLennan Capital Professionals Fund, L.P. and Marsh & McLennan Employees' Securities Company, L.P.(o)
10.34	Management Subscription Agreement, dated as of October 24, 2001, between ACGL and certain members of management(o)
10.35.1	Second Amended and Restated Credit Agreement, dated as of August 30, 2006 ("Second Amended and Restated Credit Agreement"), by and among ACGL, Arch U.S., Arch Reinsurance Ltd. ("Arch Re Bermuda"), Arch Reinsurance Company, Arch Insurance Company, Arch Specialty Insurance Company, Arch Excess & Surplus Insurance Company, Western Diversified Casualty Insurance Company and Arch Insurance Company (Europe) Limited, with Barclays Bank Plc, The Bank of New York, Calyon, New York Branch, Citibank, N.A., ING Bank N.V., London Branch, Lloyd's TSB Bank plc, and Wachovia Bank, N.A., as documentation agents, Bank of America, N.A., as syndication agent, JPMCB, as administrative agent, and the lenders named therein(mm)
10.35.2	First Amendment to the Second Amended and Restated Credit Agreement, dated as of October 1, 2007(qq)
10.36	Letter of Credit and Reimbursement Agreement, dated as of December 12, 2007, Arch Re Bermuda, Lloyds TSB Bank plc, as agent ("Lloyds TSB"), Lloyds TSB, ING Bank N.V., London Branch, and Barclays Bank plc, as original lenders, and Lloyds TSB as mandated lead arranger(ss)
10.37.1	Stock Purchase Agreement, dated as of May 13, 2004, by and among Protective Underwriting Services, Inc. ("Protective"), Arch Capital Holdings Ltd. ("Arch Capital Holdings") and ACGL, as amended by Amendment No. 1, dated as of July 9, 2004, Amendment No. 2, dated as of July 13, 2004, Amendment No. 3, dated as of July 16, 2004 and Amendment No. 4, dated as of July 28, 2004(bb)
10.37.2	Waiver Letter Agreement related to the Stock Purchase Agreement, dated as of October 5, 2004, signed by Arch Capital Holdings, ACGL and Protective(cc)
10.38	Joint Venture Agreement, dated as of January 22, 2008, between Gulf Investment Corporation GSC and Arch Reinsurance Ltd. relating to Gulf Holdings Limited(uu)(yy)
12	Statement regarding computation of ratios (filed herewith)
21	Subsidiaries of Registrant (filed herewith)
23	Consent of PricewaterhouseCoopers LLP (filed herewith)
24	Power of Attorney (filed herewith)
25	Form T-1 Statement of Eligibility of Trustee(dd)
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith)
31.2	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith)
32.1	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (filed herewith)
32.2	Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (filed herewith)

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(a) Filed as an exhibit to our Registration Statement on Form S-8 (No. 33-99974), as filed with the SEC on December 4, 1995, and incorporated by reference.

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- (b) Filed as an exhibit to our Annual Report on Form 10-K for the year ended December 31, 1995, as filed with the SEC on March 29, 1996, and incorporated by reference.
- (c) Filed as an exhibit to our Annual Report on Form 10-K for the year ended December 31, 1996, as filed with the SEC on March 31, 1997, and incorporated by reference.
- (d) Filed as an exhibit to our Report on Form 10-Q for the period ended June 30, 1997, as filed with the SEC on August 14, 1997, and incorporated by reference.
- (e) Filed as an exhibit to our Annual Report on Form 10-K for the year ended December 31, 1997, as filed with the SEC on March 27, 1998, and incorporated by reference.
- (f) Filed as an exhibit to our Annual Report on Form 10-K for the year ended December 31, 1998, as filed with the SEC on March 30, 1999, and incorporated by reference.
- (g) Filed as an exhibit to our Definitive Proxy Statement, as filed with the SEC on April 14, 1999, and incorporated by reference.
- (h) Filed as an exhibit to our Report on Form 8-K as filed with the SEC on January 18, 2000, and incorporated by reference.
- (i) Filed as an exhibit to our Annual Report on Form 10-K for the year ended December 31, 1999, as filed with the SEC on March 30, 2000, and incorporated by reference.
- (j) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on May 19, 2000, and incorporated by reference.
- (k) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on September 8, 2000, and incorporated by reference.
- (l) Filed as an annex to our Definitive Proxy Statement/Prospectus included in our Registration Statement on Form S-4 (No. 333-45418), as filed with the SEC on September 26, 2000, and incorporated by reference.
- (m) Filed as an exhibit to our Report on Form 10-Q for the period ended September 30, 2000, as filed with the SEC on November 14, 2000, and incorporated by reference.
- (n) Filed as an exhibit to our Annual Report on Form 10-K for the year ended December 31, 2000, as filed with the SEC on April 2, 2001, and incorporated by reference.
- (o) Filed as an exhibit to our Report on Form 10-Q for the period ended September 30, 2001, as filed with the SEC on November 14, 2001, and incorporated by reference.
- (p) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on January 4, 2002, and incorporated by reference.
- (q) Filed as an exhibit to our Registration Statement on Form S-8 (No. 333-72182), as filed with the SEC on January 8, 2002, and incorporated by reference.
- (r)

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Filed as an annex to our Definitive Proxy Statement, as filed with the SEC on June 3, 2002, and incorporated by reference.

- (s) Filed as an exhibit to our Annual Report on Form 10-K for the year ended December 31, 2001, as filed with the SEC on March 18, 2002, and incorporated by reference.
- (t) Filed as an exhibit to our Report on Form 10-Q for the period ended June 30, 2002, as filed with the SEC on August 14, 2002, and incorporated by reference.
- (u) Filed as an exhibit to our Annual Report on Form 10-K for the year ended December 31, 2002, as filed with the SEC on March 31, 2003, and incorporated by reference.

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- (v) Filed as an exhibit to our Report on Form 10-Q for the period ended September 30, 2003, as filed with the SEC on November 12, 2003, and incorporated by reference.
- (w) Filed as an exhibit to our Annual Report on Form 10-K for the year ended December 31, 2003, as filed with the SEC on March 10, 2004, and incorporated by reference.
- (x) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on May 7, 2004, and incorporated by reference.
- (y) Form of agreement filed as an exhibit to our Report on Form 8-K, as filed with the SEC on September 28, 2004, and incorporated by reference.
- (z) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on October 6, 2004, and incorporated by reference.
- (aa) Filed as an exhibit to our Report on Form 10-Q for the period ended March 31, 2004, as filed with the SEC on May 10, 2004, and incorporated by reference.
- (bb) Filed as an exhibit to our Report on Form 10-Q for the period ended June 30, 2004, as filed with the SEC on August 9, 2004, and incorporated by reference.
- (cc) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on October 8, 2004, and incorporated by reference.
- (dd) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on May 3, 2004, and incorporated by reference.
- (ee) Revised form of agreement originally filed as an exhibit to our Report on Form 8-K, as filed with the SEC on September 28, 2004, and incorporated by reference.
- (ff) Revised form of agreement originally filed as an exhibit to our Report on Form 8-K, as filed with the SEC on September 28, 2004, and incorporated by reference.
- (gg) Filed as an exhibit to our Annual Report on Form 10-K for the year ended December 31, 2004, as filed with the SEC on March 15, 2005, and incorporated by reference.
- (hh) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on June 9, 2005, and incorporated by reference.
- (ii) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on September 9, 2005, and incorporated by reference.
- (jj) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on February 2, 2006, and incorporated by reference.
- (kk) Filed as an exhibit to our Annual Report on Form 10-K for the year ended December 31, 2005, as filed with the SEC on March 13, 2006, and incorporated by reference.
- (ll) Filed as an exhibit to our Report on Form 10-Q for the period ended March 31, 2006, as filed with the SEC on May 8, 2006, and incorporated by reference.

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- (mm) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on August 31, 2006, and incorporated by reference.
- (nn) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on May 24, 2006, and incorporated by reference.
- (oo) Filed as an exhibit to our Report on Form 10-Q for the period ending September 30, 2006, as filed with the SEC on November 9, 2006.

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- (pp) Filed as an appendix to our Definitive Proxy Statement, as filed with the SEC on April 3, 2007, and incorporated by reference.
- (qq) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on October 2, 2007, and incorporated by reference.
- (rr) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on December 3, 2007, and incorporated by reference.
- (ss) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on December 14, 2007, and incorporated by reference.
- (tt) Filed as an exhibit to our Annual Report on Form 10-K for the year ended December 31, 2007, as filed with the SEC on February 29, 2008, and incorporated by reference.
- (uu) Filed as an exhibit to our Report on Form 10-Q for the period ending March 31, 2008, as filed with the SEC on May 8, 2008.
- (vv) Filed as an exhibit to our Report on Form 10-Q for the period ending June 30, 2008, as filed with the SEC on August 8, 2008.
- (ww) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on October 28, 2008, and incorporated by reference.
- (xx) Filed as an exhibit to our Report on Form 10-Q for the period ending September 30, 2008, as filed with the SEC on November 10, 2008.
- (yy) Pursuant to 17 CFR 240.24 b-2, confidential information has been omitted and filed separately with the SEC.

Management contract or compensatory plan or arrangement.