

ARCH CAPITAL GROUP LTD.  
Form 10-K  
February 29, 2012

Use these links to rapidly review the document

[TABLE OF CONTENTS](#)

[ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA](#)

[ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES](#)

[Table of Contents](#)

**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, 2011**

**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:

**Title of each class**  
Common Shares, \$0.0033 par value per share

**Name of each exchange on which registered**  
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

New York Stock Exchange

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

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

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

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  No

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 whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes  No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) 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 \$4.11 billion.

As of February 21, 2012, there were 135,395,863 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 2012 annual meeting of shareholders to be filed with the Securities and Exchange Commission pursuant to Regulation 14A before April 30, 2012.

Table of Contents

## ARCH CAPITAL GROUP LTD.

## TABLE OF CONTENTS

<u>Item</u>		<u>Page</u>
	<b><u>PART I</u></b>	
<u>ITEM 1.</u>	<u>BUSINESS</u>	<u>4</u>
<u>ITEM 1A.</u>	<u>RISK FACTORS</u>	<u>48</u>
<u>ITEM 1B.</u>	<u>UNRESOLVED STAFF COMMENTS</u>	<u>72</u>
<u>ITEM 2.</u>	<u>PROPERTIES</u>	<u>72</u>
<u>ITEM 3.</u>	<u>LEGAL PROCEEDINGS</u>	<u>73</u>
<u>ITEM 4.</u>	<u>MINE SAFETY DISCLOSURES</u>	<u>73</u>
	<b><u>PART II</u></b>	
<u>ITEM 5.</u>	<u>MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES</u>	<u>73</u>
<u>ITEM 6.</u>	<u>SELECTED FINANCIAL DATA</u>	<u>76</u>
<u>ITEM 7.</u>	<u>MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS</u>	<u>77</u>
<u>ITEM 7A.</u>	<u>QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK</u>	<u>135</u>
<u>ITEM 8.</u>	<u>FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA</u>	<u>136</u>
<u>ITEM 9.</u>	<u>CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE</u>	<u>200</u>
<u>ITEM 9A.</u>	<u>CONTROLS AND PROCEDURES</u>	<u>200</u>
<u>ITEM 9B.</u>	<u>OTHER INFORMATION</u>	<u>201</u>
	<b><u>PART III</u></b>	
<u>ITEM 10.</u>	<u>DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE</u>	<u>201</u>
<u>ITEM 11.</u>	<u>EXECUTIVE COMPENSATION</u>	<u>201</u>
<u>ITEM 12.</u>	<u>SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS</u>	<u>201</u>
<u>ITEM 13.</u>	<u>CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE</u>	<u>202</u>
<u>ITEM 14.</u>	<u>PRINCIPAL ACCOUNTANT FEES AND SERVICES</u>	<u>202</u>
	<b><u>PART IV</u></b>	
<u>ITEM 15.</u>	<u>EXHIBITS AND FINANCIAL STATEMENT SCHEDULES</u>	<u>203</u>

Table of Contents

**CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS**

The Private Securities Litigation Reform Act of 1995 ("PSLRA") 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 PSLRA 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, prevailing credit terms and the depth and duration of a recession) and conditions specific to the reinsurance and insurance markets (including the length and magnitude of the current "soft" market) 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 enhance, integrate and maintain operating procedures (including information technology) to effectively support our current and new business;

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, 2011;

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;

severity and/or frequency of losses;

Table of Contents

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;

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 fair value of our investments;

the impact of the continued weakness of the U.S., European countries and other key economies, projected budget deficits for the U.S., European countries and other governments and the consequences associated with possible additional downgrades of securities of the U.S., European countries and other governments by credit rating agencies, and the resulting effect on the value of securities in our investment portfolio as well as the uncertainty in the market generally;

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;

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.

Table of Contents

**PART I**

**ITEM 1. BUSINESS**

As used in this report, references to "we," "us," "our" or the "Company" refer to the consolidated operations of Arch Capital Group Ltd. ("ACGL") and its subsidiaries. Tabular amounts are in U.S. Dollars in thousands, except share amounts, unless otherwise noted. 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. is a Bermuda public limited liability company with approximately \$5.03 billion in capital at December 31, 2011 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. For 2011, we wrote \$2.67 billion of net premiums and reported net income available to common shareholders of \$410.5 million. Diluted book value per share was \$32.03 at December 31, 2011, compared to \$29.99 per share at December 31, 2010.

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 [www.archcapgroup.bm](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 [www.sec.gov](http://www.sec.gov).

**Our History**

Our current operations were built on an existing underwriting platform through 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.

Prior to the 2001 underwriting initiative, our insurance underwriting platform consisted of Arch Insurance (Bermuda), a division of Arch Reinsurance Ltd. ("Arch Re Bermuda"), our Bermuda-based reinsurer and insurer, and our U.S.-licensed insurers, Arch Insurance Company ("Arch Insurance"), Arch Excess & Surplus Insurance Company ("Arch E&S") and Arch Specialty Insurance Company ("Arch Specialty"). We established Arch Insurance Company (Europe) Limited ("Arch Insurance Company Europe"), our United Kingdom-based subsidiary, in 2004, and we expanded our North American presence when Arch Insurance opened a branch office in Canada in 2005. In 2009, we established a managing agent and syndicate at Lloyd's of London ("Lloyd's"). Our Lloyd's syndicate 2012 ("Arch Syndicate 2012") commenced underwriting in 2009. See "Operations Insurance Operations" for further details on our insurance operations.

Table of Contents

Prior to the 2001 underwriting initiative, our reinsurance underwriting platform consisted of Arch Re Bermuda and Arch Reinsurance Company ("Arch Re U.S."), our U.S.-licensed reinsurer. Our reinsurance operations in Europe began in November 2006 with the formation of a Swiss branch of Arch Re Bermuda, and the formation of a Danish underwriting agency in 2007. In addition to the U.S. reinsurance activities of Arch Re U.S., we launched our property facultative reinsurance underwriting operations in 2007, which underwrite in the U.S., Canada and Europe. We formed Arch Reinsurance Europe Underwriting Limited ("Arch Re Europe"), our Ireland-based reinsurance company, in 2008. In 2011, we formed Arch Mortgage Insurance Limited ("Arch Mortgage"), which is authorized to underwrite mortgage insurance from its base in Ireland, and launched treaty operations in Canada. See "Operations Reinsurance Operations" for further details on our reinsurance operations.

In January 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 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 the member states of the GCC.

The growth of our insurance and reinsurance platforms was supported through the net proceeds of: (1) an equity capital infusion of \$763 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 7.5 million of our common shares with net proceeds of \$179 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 million; (4) a March 2004 public offering of 4.7 million of our common shares with net proceeds of \$179 million; (5) a May 2004 public offering of \$300 million principal amount of our 7.35% senior notes due May 2034; (6) a February 2006 public offering of \$200 million of our 8.00% series A non-cumulative preferred shares; and (7) a May 2006 public offering of \$125 million of our 7.875% series B non-cumulative preferred shares. ACGL has the right to redeem all or a portion of each series of preferred shares at a liquidation preference price of \$25.00 per share.

The board of directors of ACGL has authorized the investment in ACGL's common shares through a share repurchase program. Repurchases under the share repurchase program may be effected from time to time in open market or privately negotiated transactions through December 31, 2012. Since the inception of the share repurchase program in February 2007 through December 31, 2011, ACGL has repurchased approximately 104.8 million common shares for an aggregate purchase price of \$2.56 billion. At December 31, 2011, the total remaining authorization under the share repurchase program was \$942.0 million.

**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, Canada, Australia and South Africa. Our insurance operations in Bermuda are conducted through Arch Insurance (Bermuda), a division of Arch Re Bermuda. In the U.S., our insurance group's principal insurance



Table of Contents

subsidiaries are Arch Insurance, Arch Specialty, Arch E&S and Arch Indemnity Insurance Company ("Arch Indemnity"). Arch Insurance is 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. Arch Specialty is 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. Arch E&S, which is not currently writing business, is an approved excess and surplus lines insurer in 47 states and the District of Columbia and an admitted insurer in one state. Arch Indemnity, which is not currently writing business, is an admitted insurer in 49 states and the District of Columbia. The headquarters for our insurance group's U.S. support operations (excluding underwriting units) is in Jersey City, New Jersey. 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. The insurance group operates in Canada as a branch of Arch Insurance, with its headquarters in Toronto, Ontario and other regional offices in Canada.

Our insurance group's European operations are conducted on two platforms: Arch Insurance Company Europe and Arch Syndicate 2012 (the U.K. insurance operations are collectively referred to as "Arch Insurance Europe"). Arch Insurance Europe conducts its operations from London. Arch Insurance Company Europe is approved as an excess and surplus lines insurer in 27 states and the District of Columbia and also has branches in Denmark, Finland, Germany, Italy, Norway, Spain and Sweden. Arch Underwriting at Lloyd's Ltd ("AUAL") is the managing agent of Arch Syndicate 2012 and is responsible for the daily management of Arch Syndicate 2012. Arch Syndicate 2012 has enhanced our underwriting platform by providing us with access to Lloyd's extensive distribution network and worldwide licenses. Arch Underwriting at Lloyd's (Australia) Pty Ltd, based in Sydney, Australia, and Arch Underwriting at Lloyd's (South Africa) (Pty) Limited, based in Johannesburg, South Africa, are Lloyd's services companies which underwrite exclusively for Arch Syndicate 2012.

As of February 15, 2012, our insurance group had approximately 1,125 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 its 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.

Table of Contents

*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.* Our insurance group's construction unit provides primary and excess casualty coverages to middle and large accounts in the construction industry.

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

*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.

*Lenders products.* Our insurance group's lenders products unit provides collateral protection, debt cancellation and service contract reimbursement products to banks, credit unions, automotive dealerships and original equipment manufacturers. The unit also underwrites other specialty programs that pertain to automotive lending and leasing.

*National Accounts.* Our insurance group's national accounts 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.

*Professional Liability.* Our insurance group's professional liability unit insures large law firms and accounting firms and professional programs, as well as miscellaneous professional liability, including coverages for consultants, network security, securities broker-dealers, wholesalers, captive agents and managing general agents. The professional liability unit also provides coverage for environmental and design professionals, including coverages for architectural and engineering firms and construction products and pollution legal liability coverage for fixed sites.

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

*Programs.* Our insurance group's programs unit targets program managers with unique expertise and niche products offering general liability, commercial automobile, inland marine and

Table of Contents

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, Energy, Marine and Aviation.* Our insurance group's property unit provides primary and excess general property insurance coverages, including catastrophe-exposed property coverage, for commercial clients and onshore and offshore property insurance coverages for commercial clients primarily in the energy industry. The property unit also provides contractors all risk, erection all risk, aviation (which is currently in runoff) and stand alone terrorism insurance coverage for commercial clients.

*Surety.* Our insurance group's surety unit provides contract and commercial surety coverages, including contract bonds (payment and performance bonds) primarily for medium and large contractors and commercial surety bonds for Fortune 1,000 companies and smaller transaction business programs. The surety unit also provides specialty contract bonds for homebuilders and developers.

*Travel and Accident.* Our insurance group's travel and accident unit provides specialty travel and accident and related insurance products for individual and group travelers, as well as travel agents and suppliers.

*Other.* Our insurance group also includes the following units: (i) excess workers' compensation, which provides excess workers' compensation and employer's liability insurance coverages for qualified self-insured groups, associations and trusts in a wide range of businesses; (ii) alternative market risks, including captive insurance programs; and (iii) accident and health, which provides accident, disability and medical plan insurance coverages for employer groups, medical plan members, students and other participant groups.

*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.

Table of Contents

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

INSURANCE SEGMENT	Year Ended December 31,					
	2011		2010		2009	
	Amount	% of Total	Amount	% of Total	Amount	% of Total
<b>Net premiums written</b>						
Property, energy, marine and aviation	\$ 335,589	19.5	\$ 321,529	19.4	\$ 353,761	20.8
Programs	297,985	17.3	273,076	16.5	274,735	16.1
Professional liability	237,860	13.8	268,176	16.2	258,187	15.1
Executive assurance	231,405	13.4	219,458	13.2	220,088	12.9
Construction	120,405	7.0	112,827	6.8	131,792	7.7
Casualty	114,235	6.6	107,962	6.5	103,546	6.1
Lenders products	86,694	5.0	92,921	5.6	75,357	4.4
National accounts	80,973	4.7	67,925	4.1	79,088	4.6
Travel and accident	71,940	4.2	71,237	4.3	68,617	4.0
Surety	42,475	2.5	34,149	2.1	43,353	2.5
Healthcare	35,652	2.1	37,508	2.3	42,350	2.5
Other(1)	66,066	3.9	52,195	3.0	53,410	3.3
Total	\$ 1,721,279	100.0	\$ 1,658,963	100.0	\$ 1,704,284	100.0
<b>Net premiums written by client location</b>						
United States	\$ 1,208,007	70.2	\$ 1,183,238	71.3	\$ 1,268,347	74.4
Europe	273,578	15.9	272,348	16.4	267,093	15.7
Other	239,694	13.9	203,377	12.3	168,844	9.9
Total	\$ 1,721,279	100.0	\$ 1,658,963	100.0	\$ 1,704,284	100.0
<b>Net premiums written by underwriting location</b>						
United States	\$ 1,153,835	67.0	\$ 1,133,173	68.3	\$ 1,243,063	72.9
Europe	463,855	26.9	436,483	26.3	384,363	22.6
Other	103,589	6.1	89,307	5.4	76,858	4.5
Total	\$ 1,721,279	100.0	\$ 1,658,963	100.0	\$ 1,704,284	100.0

(1) Includes excess workers' compensation, employer's liability, alternative markets and accident and health 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. Currently, some of our contracts with brokers provide for additional commissions based on volume. We have also entered into service agreements with select international brokers that provide access to their proprietary industry analytics. 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 select program administrators. Such administrators are subject to a due diligence financial and operational review prior to any such

Table of Contents

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 exceed their underwriting authorities or if our agents, our insureds or other third parties commit fraud or otherwise breach obligations owed to us." For information on major brokers, see note 14, "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 on a quota share or excess of loss basis through treaty or facultative reinsurance agreements. Reinsurance arrangements do not relieve our insurance group from its primary 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 principal insurance subsidiaries, with oversight by a group-wide reinsurance steering committee ("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. The RSC evaluates the financial viability of its reinsurers through financial analysis, research and review of rating agencies' reports and also monitors reinsurance recoverables and collateral 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 clients.

***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 is a registered Class 4 insurer and long-term insurer and is headquartered in Hamilton, Bermuda. Arch Re U.S. is licensed or is an accredited or otherwise approved reinsurer in 50 states and the District of Columbia and operates out of its office in Morristown, New Jersey. Our property facultative reinsurance operations are conducted primarily through Arch Re U.S. with certain executive functions conducted through Arch Re Facultative Underwriters Inc. located in Farmington, Connecticut. The property facultative reinsurance operations have offices throughout the U.S., Canada and in Europe. Arch Re Europe, licensed and authorized as a non-life reinsurer and a life reinsurer, is headquartered in Dublin, Ireland with a branch office in Switzerland. In 2011, we formed Arch Mortgage, which was authorized as a non-life insurer in Ireland in December 2011, and launched treaty operations in Canada through

Table of Contents

the Canadian branch of Arch Insurance. Mortgage insurance and reinsurance is underwritten in Europe through Arch Mortgage. Arch Risk Partners Ltd. ("Arch Risk Partners"), a U.K.-based insurance intermediary authorized by the FSA in February 2012, will act on behalf of Arch Mortgage and Arch Re Bermuda in the arrangement of mortgage insurance and reinsurance.

As of February 15, 2012, our reinsurance group had approximately 200 employees.

*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 platform in Bermuda, the U.S., Europe and Canada, 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.

The reinsurance group's treaty operations generally seek 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, the reinsurance group's treaty operations participate in a relatively large number of treaties where they believe that they can underwrite and process the business efficiently. The reinsurance group's property facultative operations write reinsurance on a facultative basis whereby they assume 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 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

Table of Contents

reinsures include, among others, executive assurance, professional liability, workers' compensation, excess and umbrella liability and healthcare business. 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.

*Marine and Aviation.* Our reinsurance group writes marine business, which includes coverages for energy, hull, cargo, specie, liability and transit, 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 Specialty.* Our reinsurance group writes other specialty lines, including surety, accident and health, U.K. motor, workers' compensation catastrophe, multi-peril crop, 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.

*Property Excluding Property Catastrophe.* Our reinsurance group's treaty reinsurance operations reinsure 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 covering buildings, structures, equipment and contents). The primary perils in this business include fire, explosion, collapse, riot, vandalism, wind, tornado, flood and earthquake. Our reinsurance group's property facultative operations focus on commercial property risks on an excess of loss basis.

*Other.* Our reinsurance group also writes casualty clash business and, in limited instances, writes non-traditional business which is intended to provide insurers with risk management solutions that complement traditional reinsurance. In addition, our reinsurance group writes life reinsurance business on both a proportional and non-proportional basis. Besides death risk, the portfolio may include short and long-term disability risk from accident or natural causes. Our reinsurance group also provides direct mortgage insurance in Europe and reinsurance on both a proportional and non-proportional basis.

*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;



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

### Table of Contents

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.

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

REINSURANCE SEGMENT	Year Ended December 31,					
	2011		2010		2009	
	Amount	% of Total	Amount	% of Total	Amount	% of Total
<b>Net premiums written</b>						
Property catastrophe	\$ 246,793	25.9	\$ 202,989	23.8	\$ 237,445	22.4
Property excluding property catastrophe(1)	226,013	23.7	249,791	29.3	349,915	33.0
Other specialty	211,019	22.2	131,158	15.4	65,189	6.2
Casualty(2)	181,957	19.1	186,774	21.9	325,699	30.8
Marine and aviation	77,309	8.1	77,063	9.0	77,677	7.3
Other	8,956	26.9	4,302	24.4	2,903	22.7
<b>Total</b>	<b>\$ 952,047</b>	<b>100.0</b>	<b>\$ 852,077</b>	<b>100.0</b>	<b>\$ 1,058,828</b>	<b>100.0</b>
<b>Net premiums written by client location</b>						
United States	\$ 512,319	53.8	\$ 496,947	58.3	\$ 668,985	63.2
Europe	250,809	26.3	195,006	22.9	213,211	20.1
Bermuda	60,246	6.3	75,517	8.9	127,212	12.0
Other	128,673	13.6	84,607	9.9	49,420	4.7
<b>Total</b>	<b>\$ 952,047</b>	<b>100.0</b>	<b>\$ 852,077</b>	<b>100.0</b>	<b>\$ 1,058,828</b>	<b>100.0</b>
<b>Net premiums written by underwriting location</b>						
Bermuda	\$ 531,254	55.8	\$ 461,890	54.2	\$ 596,334	56.3
United States	323,731	34.0	307,639	36.1	396,947	37.5
Other	97,062	10.2	82,548	9.7	65,547	6.2
<b>Total</b>	<b>\$ 952,047</b>	<b>100.0</b>	<b>\$ 852,077</b>	<b>100.0</b>	<b>\$ 1,058,828</b>	<b>100.0</b>

(1) Includes facultative business.

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

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

*Marketing.* Our reinsurance group generally 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 14, "Commitments and Contingencies Concentrations of Credit Risk," of the notes accompanying our consolidated financial statements.

Table of Contents

*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.

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, 2012, ACG and its subsidiaries employed approximately 1,380 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 experienced 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 in our insurance operations.

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 and 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."

Table of Contents

The following table represents the development of loss reserves as determined under accounting principles generally accepted in the United States of America ("GAAP") for 2001 through 2011. 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 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, 2001 through December 31, 2010. 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.

Table of Contents

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

(U.S. dollars in millions)	Years Ended December 31,										
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Reserve for losses and loss adjustment expenses, net of reinsurance recoverables	\$ 21	\$ 381	\$ 1,543	\$ 2,875	\$ 4,063	\$ 4,911	\$ 5,483	\$ 5,938	\$ 6,214	\$ 6,395	\$ 6,638
Cumulative net paid losses as of:											
One year later	15	82	278	449	745	843	954	1,167	1,106	1,127	
Two years later	19	141	437	811	1,332	1,486	1,817	2,114	1,943		
Three years later	24	172	596	1,110	1,688	2,040	2,308	2,768			
Four years later	26	204	706	1,300	1,993	2,375	2,755				
Five years later	26	218	787	1,478	2,249	2,680					
Six years later	25	233	853	1,629	2,447						
Seven years later	25	243	930	1,740							
Eight years later	25	257	967								
Nine years later	28	261									
Ten years later	28										
Net re-estimated reserve as of:											
One year later	25	340	1,444	2,756	3,986	4,726	5,173	5,749	6,067	6,110	
Two years later	25	335	1,353	2,614	3,809	4,387	4,959	5,620	5,826		
Three years later	27	335	1,259	2,487	3,541	4,164	4,849	5,466			
Four years later	27	313	1,237	2,353	3,381	4,107	4,740				
Five years later	28	316	1,187	2,305	3,359	4,026					
Six years later	26	302	1,183	2,291	3,301						
Seven years later	25	291	1,191	2,255							
Eight years later	26	292	1,177								
Nine years later	28	287									
Ten years later	28										
Cumulative net redundancy (deficiency)	\$ (7)	\$ 94	\$ 366	\$ 620	\$ 762	\$ 885	\$ 743	\$ 472	\$ 388	\$ 285	
Cumulative net redundancy (deficiency) as a percentage of net reserves	(34.3)	24.9	23.7	21.6	18.8	18.0	18.0	13.6	6.2	4.5	
Gross reserve for losses and loss adjustment expenses	\$ 111	\$ 592	\$ 1,912	\$ 3,493	\$ 5,453	\$ 6,463	\$ 7,092	\$ 7,667	\$ 7,873	\$ 8,098	\$ 8,456
Reinsurance recoverable	(90)	(211)	(369)	(618)	(1,390)	(1,552)	(1,609)	(1,729)	(1,659)	(1,703)	(1,818)
Net reserve for losses and loss adjustment expenses	\$ 21	\$ 381	\$ 1,543	\$ 2,875	\$ 4,063	\$ 4,911	\$ 5,483	\$ 5,938	\$ 6,214	\$ 6,395	\$ 6,638
Gross re-estimated reserve	178	506	1,469	2,755	4,607	5,354	6,191	7,016	7,407	7,775	
Re-estimated reinsurance recoverable	(150)	(219)	(292)	(500)	(1,306)	(1,328)	(1,451)	(1,550)	(1,581)	(1,665)	
Net re-estimated reserve	28	287	1,177	2,255	3,301	4,026	4,740	5,466	5,826	6,110	
Gross re-estimated redundancy (deficiency)	\$ (67)	\$ 86	\$ 443	\$ 738	\$ 846	\$ 1,109	\$ 901	\$ 651	\$ 466	\$ 323	

Table of Contents

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:

	Year Ended December 31,		
	2011	2010	2009
Reserve for losses and loss adjustment expenses at beginning of year	\$ 8,098,454	\$ 7,873,412	\$ 7,666,957
Unpaid losses and loss adjustment expenses recoverable	1,703,201	1,659,500	1,729,135
Net reserve for losses and loss adjustment expenses at beginning of year	6,395,253	6,213,912	5,937,822
Net incurred losses and loss adjustment expenses relating to losses occurring in:			
Current year	2,012,569	1,664,411	1,843,875
Prior years	(285,016)	(146,696)	(189,201)
Total net incurred losses and loss adjustment expenses	1,727,553	1,517,715	1,654,674
Foreign exchange (gains) losses	(32,020)	(29,089)	60,506
Net paid losses and loss adjustment expenses relating to losses occurring in:			
Current year	(325,273)	(200,789)	(272,295)
Prior years	(1,127,350)	(1,106,496)	(1,166,795)
Total net paid losses and loss adjustment expenses	(1,452,623)	(1,307,285)	(1,439,090)
Net reserve for losses and loss adjustment expenses at end of year	6,638,163	6,395,253	6,213,912
Unpaid losses and loss adjustment expenses recoverable	1,818,047	1,703,201	1,659,500
Reserve for losses and loss adjustment expenses at end of year	\$ 8,456,210	\$ 8,098,454	\$ 7,873,412

Our initial 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, 2011. We employ a number of different reserving methods depending on the segment, the line of business, the availability of historical loss experience and the stability of that loss experience. Over time, we have given additional weight to our historical loss experience in our reserving process due to the continuing maturation of our reserves, and the increased availability and credibility of the historical experience. For additional information regarding the key underlying movements in our losses and loss adjustment expenses by segment, see "Management's Discussion and Analysis of Financial Condition and Results of Operations Results of Operations."

Unpaid and paid losses and loss adjustment expenses recoverable were approximately \$1.85 billion at December 31, 2011. 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 materially adversely affect our financial condition and results of operations. Although we monitor the financial condition of our reinsurers and

Table of Contents

retrocessionaires and attempt to place coverages only with substantial, financially sound carriers, we may not be successful in doing so.

**Investments**

At December 31, 2011, consolidated cash and invested assets totaled approximately \$12.32 billion, as summarized in the table below. 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 fair value of our cash and invested assets at December 31, 2011 and 2010:

	December 31,	
	2011	2010
Cash and short-term investments(1)	\$ 1,255,918	\$ 1,278,581
Fixed maturities and fixed maturities pledged under securities lending agreements, at fair value(1):		
Corporate bonds	2,719,052	2,839,344
Mortgage backed securities	1,592,762	1,806,813
Municipal bonds	1,430,565	1,182,100
Commercial mortgage backed securities	1,046,326	1,167,299
U.S. government and government agencies	1,451,993	872,149
Non-U.S. government securities	762,321	732,666
Asset backed securities	576,757	558,032
Sub-total	9,579,776	9,158,403
TALF investments, at fair value(2)	387,702	402,449
Equity securities available for sale, at fair value	359,809	363,255
Other investments	369,832	275,538
Investment funds accounted for using the equity method	380,507	508,334
Total cash and investments	12,333,544	11,986,560
Securities transactions entered into but not settled at the balance sheet date	(17,339)	(144,047)
Total cash and invested assets	\$ 12,316,205	\$ 11,842,513

(1) In our securities lending transactions, we receive 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, we have excluded the investment of collateral received and reinvested and included the fixed maturities and short-term investments pledged.

(2) We participate in the Federal Reserve Bank of New York's ("FRBNY") Term Asset-Backed Securities Loan Facility ("TALF"). TALF provides secured financing for asset-backed securities backed by certain types of consumer and small business loans and for legacy commercial mortgage-backed securities. TALF financing is non-recourse to us, except in certain limited instances, and is collateralized by the purchased securities and provides financing for the purchase price of the securities, less a 'haircut' that varies based on the type of collateral. We can deliver the collateralized securities to a special purpose vehicle created by the FRBNY in full defeasance of the borrowings. At December 31, 2011, we had \$310.5 million of secured financing from the FRBNY that is reflected as "TALF borrowings, at fair value."

Table of Contents

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. While maintaining our emphasis on preservation of capital and liquidity, we expect our portfolio to become more diversified and, as a result, we may in the future expand into areas which are not part of our current investment strategy. At December 31, 2011, approximately 95% of our fixed maturities and fixed maturities pledged under securities lending agreements were rated investment grade, compared to 94% at December 31, 2010. Our fixed maturities, fixed maturities pledged under securities lending agreements and short-term investments had an average credit quality rating of "AA" from Standard & Poor's Rating Services ("S&P") and "Aa1" from Moody's Investors Service ("Moody's") at December 31, 2011, compared to "AA+" from S&P and "Aa1" from Moody's at December 31, 2010. Our investment portfolio had an average effective duration of approximately 2.99 years and 2.83 years at December 31, 2011 and 2010, respectively.

The credit quality distribution of our fixed maturities and fixed maturities pledged under securities lending agreements, excluding TALF investments, at December 31, 2011 and 2010 are shown below:

Rating(1)	December 31,		December 31,	
	2011	% of	2010	% of
	Fair Value	Total	Fair Value	Total
U.S. government and government agencies(2)	\$ 3,154,480	32.9	\$ 2,712,187	29.6
AAA	3,229,161	33.7	3,819,570	41.7
AA	1,425,249	14.9	1,053,666	11.5
A	884,957	9.2	605,483	6.6
BBB	412,566	4.3	388,564	4.2
BB	140,029	1.5	133,673	1.5
B	165,003	1.7	242,479	2.6
Lower than B	114,672	1.2	109,596	1.2
Not rated	53,659	0.6	93,185	1.1
Total	\$ 9,579,776	100.0	\$ 9,158,403	100.0

(1) For individual fixed maturities, S&P ratings are used. In the absence of an S&P rating, ratings from Moody's are used, followed by ratings from Fitch Ratings.

(2) Includes U.S. government-sponsored agency mortgage backed securities and agency commercial mortgage backed securities.

For 2011, 2010 and 2009, 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. The benchmark return index is a customized combination of indices intended to approximate a target portfolio by asset mix and average credit quality while also matching the approximate estimated duration and currency mix of our



Table of Contents

insurance and reinsurance liabilities (see "Management's Discussion and Analysis of Financial Condition and Results of Operations General Financial Measures Total Return on Investments").

	Arch Portfolio(1)	Benchmark Return Index
Pre-tax total return (before investment expenses):		
Year ended December 31, 2011	3.81%	4.80%
Year ended December 31, 2010	7.00%	6.38%
Year ended December 31, 2009	11.28%	9.71%

- (1) Our investment expenses were approximately 0.22% of average invested assets in 2011, compared to 0.19% in 2010 and 0.20% in 2009.

**Ratings**

Our ability to underwrite business is dependent upon the quality of our 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 maintains a letter scale rating from "Aaa" (Exceptional) to "NP" (Not Prime). S&P maintains a letter scale rating system ranging from "AAA" (Extremely Strong) to "R" (Under Regulatory Supervision). Fitch Ratings ("Fitch") maintains a letter scale rating system ranging from "AAA" (Exceptionally Strong) to "C" (Distressed).

Our reinsurance subsidiaries, Arch Re U.S., Arch Re Bermuda, Arch Re Europe (S&P and Fitch only) and Arch Mortgage (S&P only), and our principal insurance subsidiaries, Arch Insurance, Arch E&S, Arch Specialty and Arch Insurance Company Europe, each currently has a financial strength rating of "A+" (Excellent, the second highest out of fifteen rating levels) with a stable outlook from A.M. Best, "A1" (Good, the fifth highest out of 21 rating levels) with a stable outlook from Moody's, "A+" (Strong, the fifth highest out of 21 rating levels) with a stable outlook from S&P, and "A+" (Strong, the fifth highest out of 24 rating levels) with a stable outlook from Fitch. A.M. Best has assigned a financial strength rating of "NR-3" (Rating Procedure Inapplicable) to Arch Indemnity, which is not writing business currently. Lloyd's has financial strength ratings of "A" (Excellent) with a stable outlook from A.M. Best, "A+" (Strong) with a stable outlook from S&P and "A+" (Strong) with a stable outlook from Fitch.

ACGL has received counterparty (issuer) credit ratings of "A-" (seventh highest out of 21 rating levels) with a stable outlook from S&P, "A3" (seventh 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.

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

Table of Contents

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.

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

**Enterprise Risk Management**

Enterprise Risk Management ("ERM") is a key element in our philosophy, strategy and culture. We employ an ERM framework that includes underwriting, reserving, investment, credit and operational risks. Risk appetite and exposure limits are set by our executive management team, reviewed with our board of directors and board level committees and routinely discussed with business unit management. These limits are integrated into our operating guidelines and the exposures are aggregated and monitored periodically by our corporate risk management team. The reporting, review and approval of risk management information is integrated into our annual planning process, capital modeling and allocation, reinsurance purchasing strategy and reviewed at insurance business reviews, reinsurance underwriting meetings and board level committees. For a discussion of our risk

Table of Contents

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."

**Regulation**

***Bermuda Insurance Regulation***

*The Insurance Act 1978 of Bermuda and Related Regulations (the "Insurance Act").* As a holding company, ACGL is not subject to Bermuda insurance regulations; however, its wholly-owned subsidiary, Arch Re Bermuda, is subject to the Insurance Act. The Insurance Act 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. We believe that we are in compliance with all applicable regulations under the Insurance Act.

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, insurers carrying on general business and insurers carrying on special purpose business. There are six general business classifications (Classes 1, 2, 3, 3A, 3B and 4), five long-term business classifications (Classes A, B, C, D and E) and one classification of special purpose insurer.

As Arch Re Bermuda carries on both long-term and general business, it is required to be registered as both a long-term and as a general business insurer under the Insurance Act. Accordingly, Arch Re Bermuda is registered as a Class 4 general business insurer and as a Class C long-term insurer. Class 4 insurers are regarded as large commercial underwriters and are subject to the strictest regulation. Class C insurers are regarded as small commercial underwriters and are subject to less stringent regulation. Insurers carrying dual licenses are referred to as "composite" insurers.

*Minimum Paid-Up Share Capital.* Arch Re Bermuda is required to maintain fully paid-up share capital of \$1.25 million.

*Principal Representative and Principal Office.* An insurer is required to maintain a principal office 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 of the prior notification setting out all the particulars of the case that are available to the principal representative.

Where there has been a significant loss which is reasonably likely to cause the insurer to fail to comply with its enhanced capital requirement (in respect of its general business, as described in more detail below), the principal representative must also furnish the BMA with a capital and solvency return reflecting an enhanced capital requirement prepared using post-loss data. The principal representative must provide this within 45 days of notifying the BMA regarding the loss.

Furthermore, where a notification has been made to the BMA regarding a material change to an insurer's business or structure (including a merger or amalgamation), the principal representative has 30 days from the date of such notification to furnish the BMA with unaudited interim statutory financial statements in relation to such period if so requested by the BMA, together with a general business solvency certificate in respect of those statements.

Table of Contents

*Approved Independent Auditor.* All insurers must appoint an independent auditor who annually audits and reports on the insurer's financial statements prepared under generally accepted accounting principles ("GAAP") or international financial reporting standards ("IFRS") 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.* As a Class C insurer, Arch Re Bermuda 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 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, Annual Statutory Financial Return and Annual Capital and Solvency Return.* Arch Re Bermuda must prepare annual statutory financial statements as prescribed in the Insurance Act with respect to both its general business and its long-term business. The statutory financial statements are distinct from the annual GAAP basis financial statements referred to below. Arch Re Bermuda is also required to prepare and file with the BMA statutory financial returns with respect to its general business and long-term business. The statutory financial return for a Class 4 insurer includes, among other things, a report of the approved independent auditor on the statutory financial statement of such insurer, solvency certificates, the statutory financial statements for the general business, the opinion of the loss reserve specialist and a schedule of reinsurance ceded. The statutory financial return for a long-term insurer shall include a report of the approved independent auditor on the statutory financial statements of such insurer, the statutory financial statements related to the long-term business, a declaration of the statutory ratios, the long-term business solvency certificate and a certificate from the approved actuary. Arch Re Bermuda is also required to file audited GAAP basis annual financial statements, which must be available to the public. In addition, Arch Re Bermuda is required to file a capital and solvency return in respect of its general business which shall include the regulatory risk based capital model, a schedule of fixed income investments by rating categories, a schedule of net reserves for losses and loss expense provisions by line of business, a schedule of premiums written by line of business, a schedule of risk management and a schedule of fixed income securities.

*Quarterly Financial Statements.* In addition to the annual filings detailed above, Arch Re Bermuda is required to prepare and file quarterly financial returns no later than the end of the month of each of May, August and November for the first, second and third quarters, respectively. The quarterly financial returns consist of (i) quarterly unaudited financial statements for each financial quarter (which must minimally include a balance sheet and income statement and must also be recent and not reflect a financial position that exceeds two months) and (ii) a list and details of material intra-group transactions and risk concentrations, which would also include, among other things, details surrounding reinsurance and retrocession arrangements and the ten largest exposures to counterparties and any other counterparty exposures exceeding 10% of the insurer's statutory capital and surplus.

*Minimum Solvency Margins.* 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 margins and enhanced capital requirement pertaining to its general business. 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 (i) \$100 million, (ii) 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

Table of Contents

(iii) 15% of net discounted aggregate losses and loss expense provisions and other insurance reserves. As a long-term insurer, Arch Re Bermuda is required, with respect to its long-term business, to maintain a minimum solvency margin equal to 50%, 75% and 100% of the greater of \$500,000 or 1.5% of its assets for 2011, 2012 and 2013, respectively. For the purpose of this calculation, assets are defined as the total assets pertaining to its long-term business reported on the balance sheet in the relevant year less the amounts held in a segregated account.

*Enhanced Capital Requirement.* As a Class 4 insurer, Arch Re Bermuda is required to maintain available statutory capital and surplus pertaining to its general business at a level equal to or in excess of its enhanced capital requirement ("ECR") which is established by reference to either the BSCR model ("BSCR") or an approved internal capital model. The BSCR is a risk-based capital model which provides a method for determining an insurer's capital requirements (statutory capital and surplus) by taking into account the risk characteristics of different aspects of the insurer's business. While not specifically referred to in the Insurance Act, the BMA has also established a target capital level ("TCL") for each Class 4 insurer equal to 120% of its ECR. While a Class 4 insurer is not currently required to maintain its statutory capital and surplus at this level, the TCL serves as an early warning tool for the BMA, and failure to maintain statutory capital at least equal to the TCL will likely result in increased regulatory oversight.

*Eligible Capital.* To enable the BMA to better assess the quality of the insurer's capital resources, as a Class 4 insurer, Arch Re Bermuda is required to disclose the makeup of its capital in accordance with the recently introduced 3-tiered capital system. Under this system, all of the insurer's capital instruments will be classified as either basic or ancillary capital, which in turn will be classified into one of three tiers based on their "loss absorbency" characteristics. Highest quality capital will be classified Tier 1 Capital, lesser quality capital will be classified as either Tier 2 Capital or Tier 3 Capital. Under this regime, not less than 80% of Tier 1 Capital and up to 20% of Tier 2 Capital may be used to support a company's minimum solvency margin for its general business. Thereafter, a minimum of 60% of Tier 1 Capital and a maximum of 15% of Tier 3 Capital may be used to satisfy the company's ECR. Any combination of Tier 1, 2 or 3 Capital may be used to meet the TCL. Where the BMA has previously approved the use of certain instruments for capital purposes, the BMA's consent must be obtained if such instruments are to remain eligible for use in satisfying the minimum solvency margin pertaining to its general business and its ECR.

*Minimum Liquidity Ratio.* Arch Re Bermuda is required to maintain a minimum liquidity ratio for general business equal to 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).

*Restrictions on Dividends and Distributions.* Arch Re Bermuda is prohibited from declaring or paying any dividends during any financial year if it is in breach of its enhanced capital requirement or its general business or long-term solvency margins or its 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 margins 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. 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.

Table of Contents

*Reduction of Capital.* Without the approval of the BMA, Arch Re Bermuda is prohibited 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.

*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. 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 extent (as so certified) of the liabilities of the insurer's long-term business. In addition, the amount such dividend shall not exceed the aggregate of that excess and any other funds properly available for payment of dividends, being funds arising out of business of the insurer other than its long-term business.

*Restrictions on Transfer of Business and Winding-Up.* As a long-term insurer, Arch Re Bermuda may only transfer long-term business, other than long-term business that is reinsurance business, with the sanction of the applicable Bermuda court. A long-term insurer may only be wound-up or liquidated by order of the applicable Bermuda court.

*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 (i) not to take on any new insurance business, (ii) not to vary any insurance contract if the effect would be to increase the insurer's liabilities, (iii) not to make certain investments, (iv) to realize certain investments, (v) to maintain in, or transfer to the custody of, a specified bank, certain assets, (vi) not to declare or pay any dividends or other distributions or to restrict the making of such payments, (vii) to limit its premium income, (viii) not to enter into specified transactions with any specified person or persons of a specified class, (ix) to provide such written particulars relating to the financial circumstances of the insurer as the BMA thinks fit, (x) to obtain the opinion of a loss reserve specialist and submit it to the BMA and/or (xi) to remove a controller or officer.

*Group Supervision.* The BMA may, in respect of an insurance group, determine whether it is appropriate for it to be the group supervisor of that group. For purposes of the Insurance Act, an insurance group is defined as a group of companies that conducts exclusively, or mainly, insurance business. The BMA may make such determination where it ascertains that (i) the group is headed by a "specified insurer" (that is to say, it is headed by either a Class 4, 3A, 3B or Class E insurer or another class of insurer designated by order of the BMA); or (ii) where the insurance group is not headed by a "specified insurer" where it is headed by a parent company which is incorporated in Bermuda; or (iii) where the parent company of the group is not a Bermuda company, where the BMA is satisfied that the insurance group is directed and managed from Bermuda or the insurer with the largest balance sheet total is a specified insurer. Where the BMA determines that it should act as the group supervisor, it shall designate a specified insurer that is a member of the insurance group to be the "designated

Table of Contents

insurer" and it shall give written notice to the designated insurer and other competent authorities of its intention to act as group supervisor.

In 2011, the BMA notified Arch Re Bermuda that it intended to act as group supervisor and that it had designated Arch Re Bermuda as the "designated insurer" of our group of insurance and reinsurance companies. Pursuant to its powers under the Insurance Act, the BMA will maintain a register of particulars for every insurance group for which it acts as the group supervisor detailing, among other things, the names and addresses of the designated insurer; each member company of the insurance group falling within the scope of group supervision; the principal representative of the insurance group in Bermuda; other competent authorities supervising other member companies of the insurance group; and the insurance group auditors. The designated insurer must notify the BMA of any changes to the above details entered on the register of an insurance group.

As group supervisor, the BMA will perform a number of supervisory functions including (i) coordinating the gathering and dissemination of information which is of importance for the supervisory task of other competent authorities; (ii) carrying out a supervisory review and assessment of the insurance group; (iii) carrying out an assessment of the insurance group's compliance with the rules on solvency, risk concentration, intra-group transactions and good governance procedures; (iv) planning and coordinating, with other competent authorities, supervisory activities in respect of the insurance group, both as a going concern and in emergency situations; (v) coordinating any enforcement action that may need to be taken against the insurance group or any of its members; and (vi) planning and coordinating meetings of colleges of supervisors (consisting of insurance regulators) in order to facilitate the carrying out of the functions described above.

In carrying out its functions, the BMA may make rules for (i) assessing the financial situation and the solvency position of the insurance group and/or its members and (ii) regulating intra-group transactions, risk concentration, governance procedures, risk management and regulatory reporting and disclosure.

*Group Solvency and Group Supervision.* The Insurance Group Supervision and Insurance Group Solvency Rules (together, "Group Rules"), will apply to Arch Re Bermuda so long as the BMA remains our group supervisor. The BMA has implemented and imposed many of the additional requirements described in this section as part of its efforts to gain equivalence under Solvency II. It is not expected that the European Commission will take a final decision on whether or not it will recognize the regime in Bermuda to be equivalent to that laid down in Solvency II until 2013. If the European Commission does not recognize the regime in Bermuda, this could mean that Arch Re Bermuda and its EU-regulated affiliates may be subject to group supervision in Bermuda and the EU, respectively. In addition, through the Group Rules, the BMA may take action which affects ACGL. A summary of the Group Rules is set forth below.

*Group Financial Statements.* Every insurance group must prepare and submit, on an annual basis, audited financial statements prepared under GAAP or IFRS ("Group Financial Statements") and group statutory financial statements. The Group Financial Statements must be audited annually by the group's approved auditor who must prepare an auditor's report in accordance with generally accepted auditing standards. The designated insurer is required to file with the BMA annually the audited Group Financial Statements within five months from the end of the relevant financial year (unless specifically extended). The Group Financial Statements are available for public inspection.

*Group Statutory Financial Return and Annual Capital and Solvency Return.* Every insurance group is required to prepare an annual group statutory financial return which must be submitted to the BMA by the designated insurer within five months after its financial year end (unless specifically extended). The Group Rules prescribe the rules pertaining to the preparation and substance of the group statutory financial statements (which include, in statutory form, a group balance sheet,

Table of Contents

a group income statement, a group statement of capital and surplus, and notes thereto). The designated insurer of the group is required to file with the BMA the group statutory financial statements with the BMA within five months from the end of the relevant financial year (unless specifically extended). The statutory financial return shall include, among other matters, a report of the approved group auditor, an insurance group business solvency certificate, the opinion of a group actuary, an insurance group capital and solvency certificate, particulars of ceded reinsurance comprising the top ten unaffiliated reinsurers for which the group has the highest recoverable balances, a list of non-insurance financial regulated entities owned by the group and summary details of all adjustments applied to the group financial statements in the form of a reconciliation of amounts reported as total assets, total liabilities, net income and total statutory capital and surplus.

Every insurance group must also prepare and submit a group capital and solvency return (the "Group Capital and Solvency Return") which comprises the group BSCR model or an approved group internal capital model, along with the returns prescribed in the applicable schedules to the Group Rules. The Group Capital and Solvency Return is submitted by the designated insurer on behalf of the group and must include a declaration signed by one director, chief executive and chief risk officer of the parent company of the group declaring that the return fairly represents the financial condition of the insurance group in all material respects.

The Group Rules also require that insurance groups prepare and file quarterly financial returns no later than the end of the month of each of May, August and November for the first, second and third quarters, respectively. The quarterly financial returns consist of (i) quarterly unaudited group financial statements for each financial quarter (which must minimally include a balance sheet and income statement and must also be recent and not reflect a financial position that exceeds two months) and (ii) a list and details of material intra-group transactions and risk concentrations, which would also include, among other things, details surrounding reinsurance and retrocession arrangements and the proportion of the group's exposure covered by internal reinsurance and other risk transfer arrangements.

*Fit and Proper Controllers.* The BMA maintains supervision over the controllers of all registered insurers in Bermuda. A controller includes (i) the managing director of the registered insurer or its parent company; (ii) the chief executive of the registered insurer or of its parent company; (iii) a shareholder controller; and (iv) any person in accordance with whose directions or instructions the directors of the registered insurer or of its parent company are accustomed to act. The definition of shareholder controller is set out in the Insurance Act but generally refers to (i) a shareholder who holds 10% or more of the shares carrying rights to vote at a shareholders' meeting of the registered insurer or its parent company, or (ii) a shareholder who is entitled to exercise 10% or more of the voting power at any shareholders' meeting of such registered insurer or its parent company, or (iii) a shareholder who is able to exercise significant influence over the management of the registered insurer or its parent company by virtue of its shareholding or its entitlement to exercise, or control the exercise of, the voting power at any shareholders' meeting. A shareholder controller that owns 10% or more but less than 20% of the shares as described above is defined as a 10% shareholder controller; a shareholder controller that owns 20% or more but less than 33% of the shares as described above is defined as a 20% shareholder controller; a shareholder controller that owns 33% or more but less than 50% of the shares as described above is defined as a 33% shareholder controller; and a shareholder controller that owns 50% or more of the shares as described above is defined as a 50% shareholder controller.



Table of Contents

Where the shares of the shareholder of a registered insurer, or the shares of its parent company, are traded on a recognized stock exchange, and such shareholder becomes a 10%, 20%, 33% or 50% shareholder controller of the insurer, that shareholder shall, within 45 days, notify the BMA in writing that such shareholder has become such a controller. Any person or entity who contravenes the Insurance Act by failing to give notice or knowingly becoming a shareholder controller before the required 45 days has elapsed is guilty of an offense and liable to a fine.

The BMA may file a notice of objection to any shareholder who has become a controller of any description where it appears that such shareholder is, or is no longer, a fit and proper shareholder to be a controller of the registered insurer. Any person who continues to be a controller of any description after having received a notice of objection shall be guilty of an offense.

Notification by Registered Person and Designated Insurers of Change of Controllers and Officers. All Class 4 insurers, and designated insurers in respect of the parent company of an insurance group, are required to give written notice to the BMA of the fact that a person has become, or ceased to be, a controller or officer of the registered insurer, or of the parent company of the insurance group as the case may be, within 45 days of becoming aware of such fact. An officer in relation to a registered insurer or the parent company of the insurance group means a director, chief executive or senior executive performing duties of underwriting, actuarial, risk management, compliance, internal audit, finance or investment matters.

Notification of Material Changes. All registered insurers are required to give notice to the BMA of their intention to effect a material change within the meaning of the Insurance Act. For the purposes of the Insurance Act, the following changes are material: (i) the transfer or acquisition of insurance business being part of a scheme falling under section 25 of the Insurance Act or section 99 of the Companies Act; (ii) the amalgamation with or acquisition of another firm; (iii) engaging in non-insurance business and activities related thereto where such business is not ancillary to its insurance business; and (iv) engaging in unrelated business that is retail business. Designated insurers are also required to give notice to the BMA if any member of its group intends to give effect to any material change.

No registered insurer shall take any steps to give effect to a material change, and no designated insurer shall, subject to the immediately following paragraph, permit any member of its group to take steps to give effect to a material change, unless it has first served notice on the BMA that it intends to effect such material change and before the end of 14 days, either the BMA has notified such company in writing that it has no objection to such change or that period has lapsed without the BMA having issued a notice of objection.

A designated insurer shall not be required to serve notice of a material change if the member of the group in question is regulated by a competent authority in an equivalent jurisdiction and has within 90 days of the event filed written notice of the material change with the BMA.

Any insurer who fails to give the required notice or which effects a material change, or allows such material change to be effected, before the prescribed period has elapsed or after having received a notice of objection from the BMA shall be guilty of an offense. A designated insurer that is guilty of an offense shall neither be liable to criminal proceedings nor any penalties but may be subject to directions issued by the BMA.

Insurance Code of Conduct. Arch Re Bermuda is subject to the Insurance Code of Conduct (the "Code"), which establishes duties and standards which must be complied with by all insurers registered under the Insurance Act, including the procedures and sound principles to be observed by such insurers. Failure to comply with the requirements under the Code will be a factor taken into account by the BMA in determining whether an insurer is conducting its business in a sound and prudent manner as prescribed by the Insurance Act. Failure to comply

Table of Contents

with the requirements of the Code could result in the BMA exercising its powers of intervention and will be a factor in calculating the operational risk charge applicable in accordance with that insurer's risk based capital model.

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.

***Certain Other Bermuda Law Considerations***

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 (i) 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, (ii) 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, (iii) the acquisition of any bonds or debentures secured by any land in Bermuda, other than certain types of Bermuda government securities or (iv) 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, as amended (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: (i) the company is, or would after the payment be, unable to pay its liabilities as they become due; or (ii) the realizable value of the company's assets would thereby be less than its liabilities. 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 20, "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.

***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 powers over such matters as licenses, standards of solvency, premium rates, policy forms, marketing

Table of Contents

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 Company 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.

A number of brokers and insurers entered into settlements with state officials arising out of the investigation by the New York Attorney General and others into contingent commission payments to brokers (and the disclosures relating to such payments), alleged "bid-rigging," alleged "steering," and other practices in the insurance industry. We cannot predict the effect these settlements, the pending civil litigation that arose out of the investigations or any current or future government investigations or prosecutions 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." 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.

*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.

Certain provisions of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (the "Dodd-Frank Act"), which became effective on July 21, 2011, provide that only the state in which a primary insurer is domiciled may regulate the financial statement credit for reinsurance taken by that primary insurer; other states will no longer be able to require additional collateral from unauthorized reinsurers or otherwise impose their own credit for reinsurance laws on primary insurers that are only licensed in such other states.

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;

if the reinsurer is an "accredited" or otherwise approved reinsurer in the state in which the primary insurer is domiciled;

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

Table of Contents

if none of the above applies, 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.

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 domiciled.

Arch Re U.S. is licensed or is an accredited or otherwise approved reinsurer in 50 states and the District of Columbia. 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. 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. 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. Arch Indemnity is licensed as an insurer in 49 states and the District of Columbia. Arch Insurance Company Europe is approved as an excess and surplus lines insurer in 27 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.

In November 2011, the National Association of Insurance Commissioners ("NAIC") adopted amendments to its Credit for Reinsurance Model Law and Regulation (the "NAIC Credit for Reinsurance Model Act"). In states that have enacted legislation adopting the amendments to the NAIC Credit for Reinsurance Model Act, full credit is to be allowed to U.S. ceding insurers for reinsurance ceded to qualified non-U.S. reinsurers based upon less than 100% collateralization. Under the amended NAIC Credit for Reinsurance Model Act, collateral requirements may be reduced for international reinsurers meeting certain criteria as to financial strength and reliability that are domiciled in countries that are found to have strong systems of domestic insurance regulation. Such reinsurers would be eligible to apply for "certified reinsurer" status in the states that have adopted the amendments to the NAIC Credit for Reinsurance Model Act and approved reinsurers would be permitted to post collateral at reduced levels. The new collateral levels apply on a prospective basis only. These new standards can only come into effect on a state-by-state basis. A state legislature must enact the amendments to the NAIC Credit for Reinsurance Model Act before the standards can become operative in that state. Prior to the adoption of the amendments to the NAIC Credit for Reinsurance Model Act, four states (Florida, Indiana, New York and New Jersey) enacted legislative amendments authorizing full financial statement credit for reinsurance ceded to unauthorized reinsurers that meet criteria similar to those included in the NAIC Credit for Reinsurance Model Act. Arch Re Bermuda is approved in Florida and New York to post reduced collateral.

*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 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. The holding company acts also prohibit any person from directly or indirectly acquiring control of a U.S. insurance company unless that person has filed a notification with specified information with the insurance company's domiciliary commissioner and has obtained the commissioner's prior approval. Under most states' statutes, including Missouri and Nebraska, acquiring 10% or more of the voting securities of an insurance company or its parent company is presumptively considered an acquisition of control of the

Table of Contents

insurance company, although such presumption may be rebutted. Accordingly, any person or entity that acquires, directly or indirectly, 10% or more of the voting securities of AGL without the prior approval of the commissioner will be in violation of these laws and may be subject to injunctive action requiring the disposition or seizure of those securities by the commissioner or prohibiting the voting of those securities, or to other actions that may be taken by the commissioner. In 2010, the NAIC adopted amendments to the Insurance Holding Company System Regulatory Act and Regulation, which, among other changes, introduce the concept of "enterprise risk" within an insurance holding company system. If and when the amendments are adopted by a particular state, the amended Insurance Holding Company System Regulatory Act and Regulation would impose more extensive informational requirements on parents and other affiliates of licensed insurers or reinsurers with the purpose of protecting them from enterprise risk, including requiring an annual enterprise risk report by the ultimate controlling person identifying the material risks within the insurance holding company system that could pose enterprise risk to the licensed companies. The amended Insurance Holding Company System Regulatory Act also requires any controlling person of a U.S. insurance company seeking to divest its controlling interest in the insurance company to file with the commissioner a confidential notice of the proposed divestiture at least 30 days prior to the cessation of control; after receipt of the notice, the commissioner shall determine those instances in which the parties seeking to divest or to acquire a controlling interest will be required to file for or obtain approval of the transaction. The amended Insurance Holding Company System Regulatory Act and Regulation must be adopted by the individual states for the new requirements to apply to U.S. domestic insurers and reinsurers. To date, only three states (Rhode Island, Texas and West Virginia) have enacted legislation adopting the amended Insurance Holding Company System Regulatory Act. It is not clear if and when other states will adopt these changes; however, the NAIC is seeking to make the amendments part of its accreditation standards for state solvency regulation, which would motivate states to adopt the amendments promptly.

*Enterprise Risk.* The NAIC has increased its focus on risks within an insurer's holding company system that may pose enterprise risk to the insurer. "Enterprise risk" is defined as any activity, circumstance, event or series of events involving one or more affiliates of an insurer that, if not remedied promptly, is likely to have a material adverse effect upon the financial condition or the liquidity of the insurer or its insurance holding company system as a whole. As noted above, the NAIC recently adopted amendments to its Model Insurance Holding Company System Regulatory Act and Regulation, which include, among other amendments, a requirement for the ultimate controlling person to file an enterprise risk report. The NAIC is also continuing to work towards establishing a legal requirement for insurers to conduct an Own Risk and Solvency Assessment (ORSA) in accordance with its recently adopted ORSA Guidance Manual.

*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 20, "Statutory Information," of the notes accompanying our financial statements.

*Insurance Regulatory Information System Ratios.* The 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

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

### Table of Contents

values of the IRIS ratios can lead to inquiries from individual state insurance commissioners as to certain aspects of an insurer's business. For 2011, 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 Regulation 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 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. 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. Assigned risk pools tend to produce losses which result in assessments to insurers writing the same lines on a voluntary basis.



Table of Contents

*Federal Regulation.* Although state regulation is the dominant form of regulation for insurance and reinsurance business, the federal government has shown 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. In addition, a number of federal laws affect and apply to the insurance industry, including various privacy laws and the economic and trade sanctions implemented by the Office of Foreign Assets Control ("OFAC"). OFAC maintains and enforces economic sanctions against certain foreign countries and groups and prohibits U.S. persons from engaging in certain transactions with certain persons or entities. OFAC has imposed civil penalties on persons, including insurance and reinsurance companies, arising from violations of its economic sanctions program.

*Terrorism Risk Insurance Program Reauthorization Act of 2007.* The Terrorism Risk Insurance Act of 2002 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 15% for 2005, 17.5% for 2006, 20% for 2007, 20% for 2008 through 2011.

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 insurance group's deductible for 2011 was approximately \$232 million (*i.e.*, 20.0% of earned premiums). Based on 2011 direct commercial earned premiums, our insurance group's deductible for 2012 will be approximately \$220 million (*i.e.*, 20.0% of such earned premiums). TRIPRA extends through 2014.

*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.



Table of Contents

*The Dodd-Frank Wall Street Reform and Consumer Protection Act.* The Dodd-Frank Act creates the Federal Insurance Office ("FIO") within the Department of Treasury, which is not a federal regulator or supervisor of insurance, but will monitor the insurance industry for systemic risk, administer the TRIPRA, consult with the states regarding insurance matters and develop federal policy on aspects of international insurance matters. The FIO has sought comment from the insurance industry in connection with the preparation of a report on modernization of the insurance regulatory system. The Dodd-Frank Act also created a uniform system for non-admitted insurance premium tax payments based on the home state of the policyholder and provides for single state regulation for financial solvency and credit for reinsurance.

*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. One ongoing initiative is the Solvency Modernization Initiative ("SMI"), which is a self-examination of the U.S. insurance solvency regulation framework being undertaken by the NAIC. This includes a review of international developments regarding supervision, banking supervision, international accounting standards and their potential use in U.S. insurance regulation. The SMI is focusing on five key areas: capital requirements, governance and risk management, group supervision, statutory accounting and financial reporting and reinsurance.

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."

***United Kingdom Insurance Regulation***

*General.* The Financial Services Authority (the "FSA") regulates insurance and reinsurance companies and firms carrying on insurance mediation activities operating in the U.K. under the Financial Services and Markets Act 2000 (the "FSMA"). In May 2004, Arch Insurance Company 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. In 2009, AUAL was licensed and authorized by the FSA and the Lloyd's Franchise Board. AUAL holds the relevant permissions for the classes of insurance business which are underwritten in the U.K. by the Arch Syndicate 2012. Arch Syndicate 2012 has one member, Arch Syndicate Investments Ltd. Arch Risk Partners was licensed and authorized by the FSA in February 2012 to conduct insurance mediation activities. All U.K. companies are also subject to a range of statutory provisions, including the laws and regulations of the Companies Acts 2006 (as amended) (the "U.K. 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 and firms carrying on insurance mediation which extends to enforcement of the provisions of the FSMA and intervention in the operations of an 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 Company Europe in 2006 and 2008 and of Arch Insurance Company Europe and AUAL in 2011. The assessments provided the FSA's views on Arch Insurance Company Europe's and AUAL's

Table of Contents

risk profile and 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"). The U.K. government announced in 2010 that the FSA will be replaced by two new agencies, the Prudential Regulation Authority ("PRA") and the Financial Conduct Authority ("FCA"). The PRA will be responsible for prudential regulation of banks and insurers, while the FCA will be responsible for the conduct of business regulation in the wholesale and retail markets. The legislation covering this change is anticipated during the course of 2012. Arch Insurance Company Europe and AUAL, will be subject to regulation by both the PRA and FCA. Arch Risk Partners will be subject to regulation by the FCA only.

*Lloyd's Supervision.* The operations of AUAL and related Arch Syndicate 2012 and its corporate member, Arch Syndicate Investments Ltd ("ASIL"), are subject to the byelaws and regulations made by (or on behalf of) the Council of Lloyd's, and requirements made under those byelaws. The Council of Lloyd's, established in 1982 by Lloyd's Act 1982, has overall responsibility and control of Lloyd's. Those byelaws, regulations and requirements provide a framework for the regulation of the Lloyd's market, including specifying conditions in relation to underwriting and claims operations of Lloyd's participants. Lloyd's is also subject to the provisions of the FSMA and is itself authorized and regulated as an insurer by the FSA (and will be subject to regulation by the PRA and FCA). Those entities acting within the Lloyd's market are required to comply with the requirements of the FSMA and provisions of the FSA's rules, although the FSA has delegated certain of its powers, including some of those relating to prudential requirements, to Lloyd's. ASIL, as a member of Lloyd's, is required to contribute 0.5% of Arch Syndicate 2012's premium income limit for each year of account to the Lloyd's central fund. The Lloyd's central fund is available if members of Lloyd's assets are not sufficient to meet claims for which the member is liable. As a member of Lloyd's, ASIL may also be required to contribute to the central fund by way of a supplement to a callable layer of up to 3% of Arch Syndicate 2012's premium income limit for the relevant year of account. In addition, AUAL, on behalf of Arch Syndicate 2012, is approved to underwrite excess and surplus lines insurance in most states in the U.S. through Lloyd's licenses. Such activities must be in compliance with the Lloyd's requirements.

*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 a periodic basis, Arch Insurance Europe is required to provide the FSA and Lloyd's 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 and Arch Risk Partners must file and submit their annual audited financial statements in accordance with IFRS and related reports to the Registrar of Companies under the U.K. 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 and, in the case of AUAL and ASIL, Lloyd's.

Table of Contents

*Financial Services Compensation Scheme.* The Financial Services Compensation Scheme ("FSCS") is a scheme established under FSMA to compensate eligible policyholders of insurance companies who may become insolvent. FSCS is funded by levies it has the power to impose on all insurers. Arch Insurance Europe and/or Arch Risk Partners could be required to pay levies to FSCS.

*Restrictions on Acquisition of Control.* Under FSMA, the prior consent of the FSA is required before any person can become a controller or increase its control over any regulated company, including Arch Insurance Company Europe, AUAL and Arch Risk Partners, or over the parent undertaking of any regulated company. Therefore, the FSA's prior consent is required before any person can become a controller of ACGL. A controller is defined as a person who holds (either alone or in concert with others) 10% or more of the shares or voting power in a company regulated by the FSA or its parent undertaking.

*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 and insurance intermediaries maintain certain solvency margins and may restrict the payment of a dividend Arch Insurance Company Europe, AUAL, ASIL or Arch Risk Partners. 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 20, "Statutory Information," of the notes accompanying our financial statements.

*European Union Considerations.* Through their respective authorizations in the U.K., a Member State of the EU, Arch Insurance Company Europe's, AUAL's and Arch Risk Partners' authorizations are recognized throughout the European Economic Area ("EEA"), subject only to certain notification and application requirements. This authorization enables Arch Insurance Company Europe, AUAL and Arch Risk Partners to establish a branch in any other Member State of the EU, where such entity 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 adopted by the European Council, the legislative body of the EU, which directives are then implemented in each Member State. Arch Insurance Company Europe currently has branches in Denmark, Finland, Germany, Italy, Norway, Spain and Sweden and may establish branches in other Member States of the EU in the future. Further, through its authorizations in an EU Member State, Arch Risk Partners, Arch Insurance Company Europe and AUAL have the freedom to provide insurance services anywhere in the EEA subject to compliance with certain rules governing such provision, including notification to the FSA.

On November 25, 2009, the EU adopted a new directive directed at insurance and reinsurance companies known as Solvency II. Solvency II is a new regulatory regime which will impose economic risk-based solvency requirements across all EU Member States and consists of three pillars: (1) Pillar I quantitative capital requirements, based on a valuation of the entire balance sheet; (2) Pillar II qualitative regulatory review, which includes governance, internal controls, enterprise risk management and supervisory review process; and (3) Pillar III market discipline, which is accomplished through reporting of the insurer's financial condition to regulators and the public. Secondary legislation under Solvency II is currently being discussed by the European Parliament and Council and by the European Commission, and the directive will then have to be implemented in the U.K. by the U.K. Government and the FSA (and in all other EU jurisdictions by their respective governments and insurance supervisors). Although the Solvency II directive provides for it to apply from November 1, 2012, it is currently anticipated this will be deferred to January 1, 2014 with

Table of Contents

potential transitional provisions. Arch Insurance Company Europe, AUAL and Syndicate 2012 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.

Under the Insurance Companies Act (Canada), the Canadian branch office is required to maintain an adequate margin of assets over liabilities in Canada, calculated in accordance with a test promulgated by OSFI called the Branch Adequacy of Assets Test (or BAAT). The Canadian branch office is also required to file financial information with OSFI on an ongoing basis, including annual audited financial statements in accordance with Canadian generally accepted accounting principles and other returns and quarterly unaudited financial statements. The Canadian branch office's appointed actuary must report annually on the adequacy of the branch's reserves. OSFI's continuing supervision includes analysis of this information and periodic examinations of the Canadian branch office. OSFI has implemented a risk-based methodology for assessing insurance companies operating in Canada known as its "Supervisory Framework". In applying the Supervisory Framework, OSFI considers the inherent risks of the business and the quality of risk management for each significant activity of operating entity.

***Ireland Insurance and Reinsurance Regulation***

*General.* The Central Bank of Ireland ("CBOI") regulates insurance and reinsurance companies authorized in Ireland. We have two Irish operating subsidiaries: Arch Re Europe and Arch Mortgage. Arch Re Europe was licensed and authorized by the CBOI as a non-life reinsurer in October 2008 and as a life reinsurer in November 2009. Arch Mortgage was licensed and authorized by the CBOI as a non-life insurer in December 2011.

Both Arch Re Europe and Arch Mortgage are subject to the regulation and supervision of the CBOI. Arch Re Europe must comply with the European Communities (Reinsurance) Regulations, 2006, rules made there under and, insofar as relevant to reinsurance, the Irish Insurance Acts 1909 to 2009, regulations promulgated there under, regulations relating to reinsurance business promulgated under the European Communities Act 1972, the Irish Central Bank Acts 1942 to 2011 as amended, regulations promulgated there under and directions, guidelines and codes of conduct issued by the CBOI. 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 1963-2009. Arch Mortgage must comply with the Irish Insurance Acts 1909 to 2009, regulations promulgated there under, regulations relating to insurance business promulgated under the European Communities Act 1972, the Irish Central Bank Acts 1942 to 2011, as amended, regulations promulgated there under and directions and guidelines and codes of conduct issued by the CBOI.

*Financial Resources.* Both Arch Re Europe and Arch Mortgage are required to maintain reserves, particularly in respect of underwriting liabilities and a solvency margin as provided for in the Irish insurance acts and regulations mentioned above. Arch Re Europe must maintain assets constituting

Table of Contents

statutory reserves which must comply with principles including obligations to secure sufficiency, liquidity, security, quality, profitability and currency matching of investments. The statutory reserves of both Arch Re Europe and Arch Mortgage must be actuarially certified annually.

*Reporting Requirements.* Like most Irish companies, Arch Re Europe and Arch Mortgage must file and submit their annual audited financial statements in accordance with Irish generally accepted accounting principles and related reports to the Registrar of Companies ("Registrar") under the Companies Acts 1963-2009 together with an annual return of certain core corporate information. Changes to core corporate information during the year must also be notified to the Registrar. These requirements are in addition to the regulatory returns required to be filed annually with the CBOI.

*Restrictions on Payment of Dividends.* Under Irish company law, Arch Re Europe and Arch Mortgage are 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, the CBOI 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 20, "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 provide 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 the CBOI only. Arch Re Europe has a branch in Denmark, Arch Re Accident & Health ApS ("Arch Re Denmark"), which is an underwriting agency underwriting accident and health business for Arch Re Europe. Arch Re Europe also has a branch outside the EEA, Arch Reinsurance Europe Underwriting Limited, Dublin (Ireland), Zurich Branch ("Arch Re Europe Swiss Branch").

As an insurance company authorized in Ireland, a Member State of the EU, Arch Mortgage's authorization is recognized throughout the EEA, subject to certain notifications requirements imposed under the European Directives and there being no objection from the CBOI and the Member States concerned, and it may establish branches and provide insurance services in all EEA Member States.

***Switzerland Reinsurance Regulation***

In November 2006, Arch Re Bermuda opened Arch Reinsurance Ltd., Hamilton (Bermuda), European Branch Zurich ("Arch Re Bermuda Swiss Branch"). 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 Swiss Branch. 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.

Table of Contents

***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 had until 2007 applied only to direct insurance, and there was 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 had 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. In December 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. Several Member States were late in the implementation of the Directive and, in a few cases, further legislation is still necessary. Pure reinsurers established in a Member State of the EU now have freedom to establish branches in and provide services to all EEA states under a regime comparable to that enjoyed by direct insurers, and they will be subject to similar rules in relation to licensing and financial supervision.

Arch Insurance Company Europe and AUAL, being established in the U.K. and authorized by the FSA, are 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 all EEA Member States. Arch Re Europe, being established in Ireland and authorized by the CBOI to write reinsurance, is able, subject to similar regulatory notifications and there being no objection from the CBOI 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, and subject to the specific rules in particular Member States, Arch Re Bermuda may do business from Bermuda with insurers in EEA Member States, but it may not directly operate its 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 equivalent 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. A number of EEA Member States currently restrict the extent to which Bermudian reinsurers may promote their services in those Member States, and a few have certain prohibitions on the purchase of insurance from reinsurers not authorized in the EEA.

Article 172 of the Directive will, when it comes into force, provide that reinsurance contracts concluded by insurance undertakings in the EEA with reinsurers having their head office in a country whose solvency regime has been determined to be equivalent to Solvency II shall be treated in the same manner as reinsurance contracts with undertakings in the EEA authorized under Solvency II. The European Commission is considering whether the solvency regime in Bermuda is equivalent to that laid down in Solvency II. In October 2011, the European Insurance and Occupational Pensions Authority ("EIOPA"), which is established under European Law as an independent advisory body to the European Parliament, the European Council and the European Commission and specifically to assist in preparing equivalence decisions, advised that Bermuda meets the criteria set out in EIOPA's methodology for equivalence assessments under Solvency II subject to certain caveats set out in EIOPA's report.

Table of Contents

**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 Limited, 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 profits, withholding, capital gains or capital transfers. 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 31, 2035. 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.

***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

Table of Contents

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.

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.

***United Kingdom***

Our U.K. subsidiaries 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 26% on profits, but with progressive decreases to take effect on April 1, 2012 through 2014 from 25% to 23%.



Table of Contents

*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 15%. Provincial and territorial corporate income tax rates are added to the general federal corporate income tax rate and generally vary between 10% and 16%. Canadian income taxes are also creditable to our U.S. operations.

*Ireland*

Arch Re Europe was licensed and authorized by the CBOI as a non-life reinsurer in October 2008 and as a life reinsurer in November 2009. Arch Mortgage was licensed and authorized by the CBOI as a non-life insurer in 2011. Each of Arch Re Europe and Arch Mortgage is incorporated and resident in Ireland for corporation tax purposes and will be subject to Irish corporate tax on its worldwide profits, including the profits of Arch Re Europe Swiss Branch. Any Swiss tax payable will be creditable against Arch Re Europe's Irish corporate tax liability on the results of Arch Re Europe Swiss Branch. The current rate of Irish corporation tax applicable to such profits 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 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. The effective tax rate is approximately 21.17% for Swiss federal, cantonal and communal corporation taxes on the profit. The effective tax rate of the annual cantonal and communal capital taxes on the equity which is allocated to Arch Re Europe Swiss Branch is approximately 0.172%.

*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 there under and any relevant administrative rulings or pronouncements or judicial decisions, all as in effect on the date of this

Table of Contents

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.

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, "related person insurance income" ("RPII") 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, 2013 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

Table of Contents

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, 2012, qualified dividend income will no longer be taxed at the rate applicable for long-term capital gains unless Congress enacts legislation providing otherwise.

For taxable years beginning after December 31, 2012, a U.S. Holder that is an individual, estate or a trust that does not fall into a special class of trusts that is exempt from such tax, will be subject to a 3.8% tax on the lesser of (1) the U.S. Holder's "net investment income" for the relevant taxable year and (2) the excess of the U.S. Holder's modified adjusted gross income for the taxable year over a certain threshold (which in the case of individual will be between \$125,000 and \$250,000, depending on the individual's circumstances). A U.S. Holder's net investment income will generally include its dividend income and its net gains from the disposition of our common shares and preferred shares, unless such dividend income or net gains are derived in the ordinary course of the conduct of a trade or business (other than a trade or business that consists of certain passive or trading activities).

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 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, RPII 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. Depending upon the ownership of these investors and as a result of certain attribution rules, we and our foreign subsidiaries could 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

Table of Contents

as shares attributed to such U.S. Holder under the Code or the regulations there under) (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 there under) common shares owned by such funds may be considered 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 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 there under.

***Related Person Insurance Income Rules***

Generally, we do not expect the gross RPII (related person insurance income) 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

Table of Contents

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.

***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.

Table of Contents

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.

*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., Alterra Capital Holdings Limited, Argo Insurance Group, AXIS Capital Holdings Limited, Berkshire Hathaway, Inc., Chartis Inc., Chubb Corporation, Endurance Specialty Holdings Ltd., The Hartford Financial Services Group, Inc., HCC Insurance Holdings, Inc., Ironshore Inc., Lloyd's, The Travelers Companies, Validus Holdings Ltd, W.R. Berkley Corp., XL Group plc and Zurich Insurance Group. In our reinsurance business, we compete with reinsurers that provide property and casualty lines of reinsurance, including ACE Limited, Alterra Capital Holdings

Table of Contents

Limited, Argo International Holdings, Ltd., AXIS Capital Holdings Limited, Berkshire Hathaway, Inc., Endurance Specialty Holdings Ltd., Everest Re Group Ltd., Hannover Rückversicherung AG, Lloyd's, Montpelier Re Holdings Ltd., Munich Re Group, PartnerRe Ltd., Platinum Underwriters Holdings, Ltd., RenaissanceRe Holdings Ltd., Swiss Reinsurance Company, Transatlantic Holdings, Inc., Validus Holdings Ltd and XL Group plc. 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.

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 and broker relationships, premiums charged, contract terms and conditions, products and services offered (including the ability to design customized programs), appropriate and timely claim payments, 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 equity, debt and other investment markets, 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 on both underwriting and investment sides. 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.

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

We have large aggregate exposures to natural and man-made catastrophic events. Catastrophes can be caused by various events, including hurricanes, floods, windstorms, earthquakes, hailstorms, tornados, explosions, severe winter weather, fires, droughts 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

Table of Contents

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.

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. Although the loss experience of catastrophe insurers and reinsurers has historically been characterized as low frequency, there is a growing consensus today that climate change increases the frequency and severity of extreme weather events and, in recent years, the frequency of major catastrophes appears to have increased. Claims for catastrophic events could expose us to large losses and cause substantial volatility in our results of operations, which could cause the value of our securities, including our common shares and preferred shares, to fluctuate widely.

***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 2011 and future years, in each case subject to a mandatory deductible of 20% of our prior year's direct earned premium for covered property and liability coverages for 2011 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.

***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 has increased the likelihood of changes in the way the financial services industry is regulated. Governmental authorities in the U.S. and worldwide have become increasingly interested in potential risks posed by the insurance industry as a whole, and to commercial and financial systems in general. While we cannot predict the exact nature, timing or scope of possible governmental initiatives, there may be increased regulatory intervention in our industry in



Table of Contents

the future. For example, the U.S. federal government has increased its scrutiny of the insurance regulatory framework in recent years, and some state legislators have considered or enacted laws that will alter and likely increase state regulation of insurance and reinsurance companies and holding companies. Moreover, the NAIC, which is an association of the insurance commissioners of all 50 states and the District of Columbia and state regulators, regularly reexamines existing laws and regulations. There are also a variety of proposals being considered by various state legislatures. Solvency II, the EU regulatory regime which was enacted in November 2009, imposes new solvency and governance requirements across all EU Member States. Solvency II was originally slated to have become effective by October 31, 2012. A European Commission official has stated publicly that there seems to be an agreement that EU Member States now must implement all the rules to introduce Solvency II by December 31, 2012 and that companies will have until January 1, 2014 to comply with the new regime in full, but companies must demonstrate to the supervisors that they are ready to operate in accordance with Solvency II from January 1, 2014. In addition, a so-called Omnibus II Directive is expected (among other things) to introduce a series of transitional provisions in specific areas that may extend beyond January 1, 2014. The detail of the Solvency II project will be set out in "delegated acts" and binding technical standards which will be issued by the European Commission and will be legally binding. No official drafts for any of these measures have been released. Solvency II imposes significant requirements for our EU-based regulated companies which require substantial documentation and implementation effort. Regulators in Bermuda and other jurisdictions in which we operate are also considering various proposals for financial and regulatory reform. The BMA has implemented and imposed additional requirements on the companies it regulates, such as Arch Re Bermuda, as part of its efforts to achieve equivalence under Solvency II. While the BMA regulates Arch Re Bermuda as a long-term and general business insurer under the Insurance Act in Bermuda, the impact of the Group Rules may have an adverse effect on ACGL and our operations. The future impact of such initiatives, if any, on our results of operations or our financial condition cannot be determined at this time. 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, including the capital we are required to hold. It is not expected that the European Commission will take a final decision on whether or not it will recognize the solvency regime in Bermuda to be equivalent to that laid down in Solvency II until 2013. If the European Commission does not recognize the regime in Bermuda to be equivalent, this could have an adverse effect on our operations.

***Underwriting risks 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.

Table of Contents

As of December 31, 2011, our reserves for unpaid losses and loss adjustment expenses, net of unpaid losses and loss adjustment expenses recoverable, were approximately \$6.64 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, 2011.

*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. 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. Our models employ both proprietary and vendor-based systems and include cross-line correlations for property, marine, offshore energy, aviation, workers compensation and personal accident. We seek to

Table of Contents

limit the probable maximum pre-tax loss to a specific level for severe catastrophic events. Currently, we seek to limit our 1-in-250 year return period net probable maximum loss from a severe catastrophic event in any geographic zone to approximately 25% of total shareholders' equity. We reserve the right to change this threshold at any time. Net probable maximum loss estimates are net of expected reinsurance recoveries, before income tax and before excess reinsurance reinstatement premiums. Loss estimates are reflective of the zone indicated and not the entire portfolio. Since hurricanes and windstorms can affect more than one zone and make multiple landfalls, our loss estimates include clash estimates from other zones. Our loss estimates do not represent our maximum exposures and it is highly likely that our actual incurred losses would vary materially from the modeled estimates. 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. Catastrophe modeling is a relatively new discipline that utilizes a mix of historical data, scientific theory and mathematical methods. We believe that there is considerable uncertainty in the data and parameter inputs for insurance industry catastrophe models. In that regard, there is no universal standard in the preparation of insured data for use in the models and the running of modeling software. In our view, the accuracy of the models depends heavily on the availability of detailed insured loss data from actual recent large catastrophes. Due to the limited number of events, there is significant potential for substantial differences between the modeled loss estimate and actual company experience for a single large catastrophic event. This potential difference could be even greater for perils with less modeled annual frequency, such as U.S. earthquake, or less modeled annual severity, such as European windstorm. We are also reliant upon third-party estimates of industry insured exposures and there is significant variation possible around the relationship between our loss and that of the industry following a catastrophic event. 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. 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." 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 underwriting treaty reinsurance business could adversely affect us.***

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.

***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.***

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 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"

Table of Contents

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. 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. We monitor the financial condition of our reinsurers and attempt to place coverages only with carriers we view as substantial and financially sound. Although we have not experienced any material credit losses to date, an inability of our reinsurers or retrocessionaires to meet their obligations to us could have a material adverse effect on our financial condition and results of operations. 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.

***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 certain investigations and litigation currently being conducted by state insurance regulatory authorities and others will have on the industry or our business.***

A number of brokers and insurers entered into settlements with state officials arising out of the investigation by the New York Attorney General and others into contingent commission payments to brokers (and the disclosures relating to such payments), alleged "bid-rigging," alleged "steering," and other practices in the insurance industry. We cannot predict the effect of these settlements, the pending civil litigation that arose out of the investigations or any current or future government investigations or prosecutions 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. The effects of emerging claims and coverage issues and certain proposed legislation are uncertain.

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 sometime 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

Table of Contents

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.

***Changes in current accounting practices and future pronouncements may materially impact our reported financial results.***

Developments in accounting practices, for example a convergence of U.S. GAAP with IFRS, may require considerable additional expense to comply with, particularly if we are required to prepare information relating to prior periods for comparable purposes or to apply the new requirements retroactively. The impact of changes in current accounting practices and future pronouncements cannot be predicted, but may affect the results of our operations, including among other things, the calculation of net income.

**Risks Relating to Our Company**

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

We continue to enhance our operating procedures and internal controls (including information technology initiatives and 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.

The NAIC has increased its focus on risks within an insurer's holding company system that may pose enterprise risk to the insurer. The NAIC recently adopted amendments to its Model Insurance Holding Company System Regulatory Act and Regulation, which include, among other amendments, a requirement for the ultimate controlling person to file an enterprise risk report. The NAIC is also continuing to work towards establishing a legal requirement for insurers to conduct an Own Risk and Solvency Assessment ("ORSA") in accordance with its recently adopted ORSA Guidance Manual. We operate within an ERM framework designed to assess and monitor our risks. However, there can be no assurance that we can effectively review and monitor all risks or that all of our employees will operate within the ERM framework. There can be no assurance that our ERM framework will result in us accurately identifying all risks and accurately limiting our exposures based on our assessments.

Table of Contents

***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 insurance between insured and insurer on behalf of the insured and intermediaries 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. Insureds, insurers, ceding insurers and intermediaries use these ratings as one measure by which to assess the financial strength and quality of insurers and reinsurers. These ratings are often an important factor in the decision by an insured, ceding insurer, broker 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 our relationships with agents, brokers, wholesalers, intermediaries, clients and other distributors of our existing products and services, as well as 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.

In light of the difficulties experienced recently by many financial institutions, including our competitors in the insurance industry, we believe it is possible that rating agencies may heighten the level of scrutiny they apply when analyzing companies in our industry, may increase the frequency and scope of their reviews, may request additional information from the companies that they rate (including additional information regarding the valuation of investment securities held), and may adjust upward the capital and other requirements employed in their models for maintenance of certain rating levels.

***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 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

Table of Contents

personnel in the future could delay or prevent us from fully implementing our business strategy which could affect our financial performance.

***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, 2011.***

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, 2011. Instead, our current loss reserves are primarily based on estimates of exposures on reported claims and 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 price of our common shares may be volatile.***

There has been significant volatility in the market for equity securities. During 2011 and 2010, the price of our common shares fluctuated from a low of \$28.54 to a high of \$37.99 and from a low of \$21.90 to a high of \$30.68, respectively. On February 21, 2012, our common shares closed at a price of \$37.66. The price of our common shares may not remain at or exceed current levels. The following factors, in addition to those described in other risk factors above, may have an adverse impact on the market price of our common stock:

actual or anticipated variations in our quarterly results, 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 processes and volumes;

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

the addition or departure of key personnel; and

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

Stock markets in the U.S. continue to experience volatile price and volume fluctuations. Such fluctuations, as well as general political conditions, the current poor economic conditions or interest rate or currency rate fluctuations, could adversely affect the market price of our stock.

Table of Contents

***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.***

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. 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 intermediaries, 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 and intermediaries. We derive a significant portion of our business from a limited number of brokers. During 2011, approximately 19.4% and 14.2% of our gross premiums written were generated from or placed by Aon Corporation and its subsidiaries and Marsh & McLennan Companies and its subsidiaries, respectively. No other broker and no one insured or reinsured accounted for more than 10% of gross premiums written for 2011. 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 exceed their underwriting authorities or if our agents, our insureds or other third parties commit fraud or otherwise breach obligations owed to us.***

For certain 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. We rely on the underwriting controls of these agents to write business within the underwriting authorities provided by us. Although we monitor such business 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. In addition, our agents, our insureds or other third parties may commit fraud or otherwise breach their obligations to us. To the extent that our agents, our insureds or other third parties exceed their underwriting authorities, commit fraud or otherwise breach obligations owed to us in the future, our financial condition and results of operations could be materially adversely affected.

***We are exposed to credit risk in certain of our business operations.***

In addition to exposure to credit risk related to our investment portfolio, reinsurance recoverables and reliance on brokers (each discussed elsewhere in this section), we are exposed to credit risk in other areas of our business related to policyholders. We are exposed to credit risk in our insurance group's surety unit where we guarantee to a third party that our policyholder will satisfy certain



Table of Contents

performance or financial obligations. If our policyholder defaults, we may suffer losses and be unable to be reimbursed by our policyholder. We are exposed to credit risk in our insurance group's construction and national accounts units where we write large deductible insurance policies. Under these policies, we are typically obligated to pay the claimant the full amount of the claim (shown as "contractholder payables" on our consolidated balance sheets). We are subsequently reimbursed by the policyholder for the deductible amount (shown as "contractholder receivables" on our consolidated balance sheets), which can be a set amount per claim and/or an aggregate amount for all covered claims. As such, we are exposed to credit risk from the policyholder. Additionally, we write retrospectively rated policies (*i.e.*, policies in which premiums are adjusted after the policy period based on the actual loss experience of the policyholder during the policy period). In this instance, we are exposed to credit risk to the extent the adjusted premium is greater than the original premium. While we generally seek to mitigate this risk through collateral agreements that require the posting of collateral in such forms as cash and letters of credit from banks, our efforts to mitigate the credit risk that we have to our policyholders may not be successful. Although we have not experienced any material credit losses to date, an increased inability of our policyholders to meet their obligations to us could have a material adverse effect on our financial condition and results of operations.

***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 (77.8% as of December 31, 2011). 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 have a material adverse effect on our financial results. 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 a material adverse effect on our financial results. 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, 2011, MBS constituted approximately 12.9% of our cash and invested assets. As with other fixed income investments, the fair 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

Table of Contents

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.

Since 2007, the residential mortgage market in the U.S has experienced a variety of difficulties. Delinquencies and losses with respect to residential mortgage loans generally have increased and may continue to increase, particularly in the subprime sector. In addition, during this period, 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. Our portfolio includes commercial mortgage backed securities ("CMBS"). At December 31, 2011, CMBS constituted approximately 8.5% of our cash and invested assets. The commercial real estate market may experience price deterioration, which could lead to delinquencies and losses on commercial real estate mortgages.

***Market developments and government actions regarding the sovereign debt crisis in Europe, particularly in Portugal, Ireland, Italy, Greece and Spain, could have a material adverse effect on our business, financial condition, results of operations and liquidity.***

The global recession and disruption of the financial markets has led to concerns over access to capital markets and the solvency of EU Member States, including Portugal, Ireland, Italy, Greece and Spain, and of financial institutions that have significant direct or indirect exposure to debt issued by, or the economies of, these countries. As of December 31, 2011, our investment portfolio does not contain significant investments in government bonds issued by Portugal, Ireland, Italy, Greece and Spain and in financial institutions that have significant direct or indirect exposure to debt issued by, or the economies of, those countries (see "Management's Discussion and Analysis of Financial Condition and Results of Operations Financial Condition, Liquidity and Capital Resources Financial Condition Investable Assets"). The continued uncertainty over the outcome of international financial support programs and the possibility that EU Member States may experience similar financial troubles could further disrupt global markets. Recent rating agency downgrades on certain European sovereign debt, as well as downgrades on certain European financial institutions, and growing concern of the potential default of government issuers or of a possible withdrawal by one or more EU Member States from the Eurozone and/or a break-up of the EU has further contributed to this uncertainty. The negative impact of these events on economic conditions and global markets could have an adverse effect on our business, financial condition and liquidity. For example, this crisis may cause the value of the European currencies, including the Euro, to further depreciate against the U.S. dollar, which in turn could materially adversely impact Euro-denominated assets held in our investment portfolio or our European book of business. In addition, the applicable legal framework and the terms of our Euro-denominated insurance policies and reinsurance agreements generally do not address withdrawal by a member state from the Eurozone or a break-up of the EU, which could create uncertainty in our payment obligations and rights under those policies and agreements in the event that such a withdrawal or break-up does occur. Additionally, a contagion effect of a possible default of one or more EU Member States and/or their withdrawal from the Eurozone, or the failure of financial institutions, on the global economy, including other EU Member States and our counterparties located in those countries, or a break-up of

Table of Contents

the EU could have a material adverse effect on our business, financial condition, results of operations and liquidity.

***Certain of our investments are illiquid and are difficult to sell, or to sell in significant amounts at acceptable prices, to generate cash to meet our needs.***

Our investments in certain securities, including certain fixed income and structured securities, investments in funds accounted for using the equity method, other investments and our investment in Gulf Re (joint venture) may be illiquid due to contractual provisions or investment market conditions. If we require significant amounts of cash on short notice in excess of anticipated cash requirements, then we may have difficulty selling these investments in a timely manner or may be forced to sell or terminate them at unfavorable values.

***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.***

On a quarterly basis, we perform reviews of our investments to determine whether declines in fair value below the cost basis are considered other-than-temporary in accordance with applicable accounting guidance regarding the recognition and presentation of other-than-temporary impairments. The process of determining whether a security is other-than-temporarily impaired requires judgment and involves analyzing many factors. These factors include (i) an analysis of the liquidity, business prospects and overall financial condition of the issuer, (ii) the time period in which there was a significant decline in value, (iii) the significance of the decline, and (iv) the analysis of specific credit events. We evaluate the unrealized losses of our equity securities by issuer and determine if we can forecast a reasonable period of time by which the fair value of the securities would increase and we would recover our cost. If we are unable to forecast a reasonable period of time in which to recover the cost of our equity securities, we record a net impairment loss in earnings equivalent to the entire unrealized loss. 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 regulatory requirements, 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 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

Table of Contents

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 Sirius America Reinsurance Company ("Sirius America"), formerly known as White Mountains Reinsurance Company of America. The Sirius America 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 Sirius America 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 Sirius America. Sirius America reported policyholders' surplus of \$746 million at September 30, 2011.

***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 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 challenges and risks, including:

integrating financial and operational reporting systems and establishing satisfactory budgetary and other financial controls;

funding increased capital needs, overhead expenses or 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;

obtaining management personnel required for expanded operations;

obtaining necessary regulatory permissions;

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;

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. In addition, if the reserves established by us, as they relate to any acquired book of business, prove to be inadequate, then subject to whatever recourse we may have against the seller or reinsurers, we may be responsible for adverse development in such reserves.

Table of Contents

*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 specified persons) are U.S. persons unless we receive assurance satisfactory to us that they are not U.S. persons.

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

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

### Table of Contents

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 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 supermajority 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 us.***

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.

The NAIC continuously examines existing laws and regulations in the U.S. We cannot predict the effect that any NAIC recommendations or proposed or future legislation or rule making in the U.S. or elsewhere may have on our financial condition or operations.

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

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

state in the U.S.; 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

Table of Contents

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 conducts its business from London and branch offices in certain EU countries and is subject to the insurance regulations of the U.K. Arch Risk Partners is also based in the U.K. and subject to U.K. regulations. Arch Re Europe and Arch Mortgage, our subsidiaries in Ireland, conduct their business from Ireland and Arch Re Europe's branches in Switzerland and Denmark. Both are subject to the regulations of Ireland. Arch Insurance Europe, Arch Re Europe and Arch Mortgage are also subject to the EU regulations and regulations of the respective EU Member States where they have established branches or in which they conduct business with respect to the conduct of their business in such EU 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 the CBOI, in the case of Arch Re Europe. Arch Insurance Europe, Arch Mortgage 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 the CBOI, respectively. Arch Insurance Company Europe is also approved as an excess and surplus lines insurer in 27 states and the District of Columbia 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 Company 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 principal 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 general business insurer and as a Class C long-term business 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;

maintain an enhanced capital requirement, general and long-term business solvency margins and a minimum liquidity ratio (for general business);

restrict dividends and distributions;

obtain prior approval regarding the ownership and transfer of shares;



Table of Contents

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

file annual financial statements, an annual statutory financial return and an annual 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 assert 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. The European Commission will not take a final decision on whether or not it will recognize the solvency regime in Bermuda to be equivalent to that laid down in Solvency II until 2013. 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, and to fund the share repurchase program. 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. In addition, the ability of our insurance and reinsurance subsidiaries to pay dividends to ACGL and to intermediate

Table of Contents

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. See "Management's Discussion and Analysis of Financial Condition and Results of Operations Financial Condition, Liquidity and Capital Resources Liquidity and Capital Resources."

***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 U.S. Because insurance regulations in the U.S. do not uniformly 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.

***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 which we operate are the Euro, the British Pound Sterling and the Canadian Dollar. Changes in foreign currency exchange rates can reduce our revenues, increase our liabilities and costs and cause fluctuations in the valuation of our investment portfolio. We may therefore suffer losses solely as a result of exchange rate fluctuations. In order to mitigate our exposure to foreign currency fluctuations in our net insurance liabilities, 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, were \$17.4 million and \$28.1 million, respectively, for 2011 and 2010, compared to net foreign exchange losses of \$39.2 million for 2009. Changes in the value of 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 certain currency risks on capital contributed to our subsidiaries, including to Arch Insurance Europe in May 2004, which is held in British Pounds Sterling, and may continue to choose not to hedge our currency risks. There can be no assurances that arrangements to match projected liabilities in foreign currencies with investments in the same currencies or derivative financial instruments will mitigate the negative impact of exchange rate fluctuations, and we may suffer losses solely as a result of exchange rate fluctuations.

***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

Table of Contents

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 who require work permits to be Constantine Jordanou, our Chairman, President and Chief Executive Officer (work permit expires November 12, 2014), John C.R. Hele, our Executive Vice President and Chief Financial Officer (work permit expires April 1, 2014), Marc Grandisson, Chairman and Chief Executive Officer of Arch Worldwide Reinsurance Group (work permit expires May 12, 2015), and Nicolas Papadopoulo, President and Chief Executive Officer of Arch Re Bermuda (work permit expires March 31, 2015). 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 some of our officers and directors are residents of various jurisdictions outside the U.S. All or a substantial portion of our assets and the assets of those persons may be located outside the U.S. As a result, it may be difficult for you to effect service of process within the U.S. upon those persons or to enforce in U.S. courts judgments obtained against those persons.

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 U.S. We have been advised by our special Bermuda legal counsel, Conyers Dill & Pearman Limited, that the U.S. 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 U.S. 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 Limited that a final and conclusive judgment obtained in a court in the U.S. 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.

Table of Contents

**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 fair value of such series of preferred shares. Factors that might influence the fair 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.

***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, 2011, our total consolidated long-term debt was \$400.0 million, excluding TALF borrowings. 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.

Table of Contents

***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.

***We may be impacted by regulatory initiatives affecting our preferred shares.***

Our preferred shares may not qualify as Tier 2 capital after January 1, 2024 under the BMA's current rules, which come into force on January 1, 2013. Under current BMA regulations, our preferred shares will not be treated as Tier 2 capital after January 1, 2024 because the terms of our preferred shares do not meet the requirement that the payment of dividends would be cancelled or indefinitely deferred if our ECR is breached. While the BMA may consider exceptions to these rules, there is no assurance they will grant exceptions or that we will be successful in obtaining such an exception. We cannot predict how regulatory changes in other jurisdictions may affect these rules, if at all.

**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 U.S. 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 U.S., there can be no assurances that the U.S. Internal Revenue Service ("IRS") will not contend successfully that ACGL or its non-U.S. subsidiaries are engaged in a trade or business in the U.S. 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.

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 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

Table of Contents

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 have made 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 if reintroduced in the current Congress 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. A recently reintroduced legislative proposal would treat certain foreign corporations as U.S. corporations if such corporation is primarily managed and controlled within the U.S. While we believe ACGL is not primarily managed and controlled within the U.S., there is no assurance that the proposal would not apply to ACGL. Another legislative proposal would treat a foreign corporation as a U.S. corporation if it is determined that the foreign corporation was formed or organized principally for the purpose of avoiding being treated as a U.S. corporation. It is uncertain whether this proposal would apply to ACGL, but it would adversely affect us if enacted and found to apply. 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 conducted hearings relating to the tax treatment of reinsurance between affiliates and is reported to be 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 legislative proposal in the House of Representatives as well as a prior 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. The Administration's Fiscal Year 2013 Revenue Proposals contain a similar but more restrictive provision that would deny deductions for all premiums ceded to affiliated non-U.S. reinsurers, offset by an exclusion for any ceding commissions received or reinsurance recovered from such affiliates. Two legislative proposals (*i.e.*, H.R. 3157 and S. 1963) introduced during the current (*i.e.*, 112<sup>th</sup>) Congress appear to adopt the provision contained in the Administration's Fiscal Year 2013 Revenue Proposals. Enactment of such legislation or proposal as well as other changes in U.S. tax laws, regulations and interpretations thereof to address these issues could adversely affect us.

***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 U.S. persons on our common shares or preferred shares in taxable years beginning on or before December 31, 2012 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, 2012, 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.

Table of Contents

***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 our U.K. subsidiaries ("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 specifically and conclusively define the activities that constitute conducting business in the U.K. through a permanent establishment, HM Revenue and Customs 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.

***We may become subject to taxes in Bermuda after March 31, 2035, which may have a material adverse effect on our results of operations.***

Under current Bermuda law, we are not subject to tax on income, profits, withholding, capital gains or capital transfers. 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 31, 2035. 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.

**ITEM 1B. UNRESOLVED STAFF COMMENTS**

None.

**ITEM 2. PROPERTIES**

We lease a total of approximately 22,000 square feet in Bermuda for the operations of Arch Re Bermuda, ACGL and our internal investment management group. Our U.S. reinsurance group leases approximately 21,000 square feet in Morristown, New Jersey. Our property facultative reinsurance group leases approximately 17,000 square feet for its offices throughout the U.S. and in Toronto. Arch Re Europe leases a total of approximately 5,000 square feet in Dublin and Zurich.

The principal U.S. office of our insurance group support operations (excluding underwriting units) is in Jersey City, New Jersey where we lease approximately 107,000 square feet. Such lease expires in 2024. We lease approximately 71,000 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 280,000 square feet for its other primary U.S. offices and its office in Canada. Arch Insurance Europe leases approximately 19,000 square feet in London.

For 2011, 2010 and 2009, our rental expense, net of income from subleases, was approximately \$16.4 million, \$15.0 million and \$16.9 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 \$121.6 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 2012.

Table of Contents**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, 2011, we were not a party to any litigation or arbitration which is expected by management to have a material adverse effect on our results of operations and financial condition and liquidity.

**ITEM 4. MINE SAFETY DISCLOSURES**

Not applicable.

**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, 2011	September 30, 2011	June 30, 2011	March 31, 2011
High	\$ 37.99	\$ 34.79	\$ 35.20	\$ 33.18
Low	\$ 31.46	\$ 30.07	\$ 31.51	\$ 28.54
Close	\$ 37.23	\$ 32.68	\$ 31.92	\$ 33.06

	Three Months Ended			
	December 31, 2010	September 30, 2010	June 30, 2010	March 31, 2010
High	\$ 30.68	\$ 28.18	\$ 26.19	\$ 25.61
Low	\$ 27.50	\$ 24.50	\$ 21.90	\$ 23.00
Close	\$ 29.35	\$ 27.93	\$ 24.83	\$ 25.42

On February 21, 2012, the high and low sales prices and the closing price for our common shares as reported on the NASDAQ Stock Market were \$37.72, \$37.29 and \$37.66, respectively.

**HOLDERS**

As of February 21, 2012, and based on information provided to us by our transfer agent and proxy solicitor, there were 532 holders of record of our common shares and approximately 21,400 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

Table of Contents

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).

**ISSUER PURCHASES OF EQUITY SECURITIES**

The following table summarizes our purchases of our common shares for the 2011 fourth quarter:

Period	Issuer Purchases of Equity Securities		Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Approximate Dollar Value of Shares that May Yet be Purchased Under the Plan or Programs(2)
	Total Number of Shares Purchased(1)	Average Price Paid per Share		
10/1/2011 - 10/31/2011	1,967	\$ 35.62	100	\$ 941,967
11/1/2011 - 11/30/2011	5,415	\$ 35.61		\$ 941,967
12/1/2011 - 12/31/2011	8,759	\$ 36.79		\$ 941,967
Total	16,141	\$ 36.25	100	\$ 941,967

- 
- (1) Includes repurchases by ACGL of 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) Remaining amount available at December 31, 2011 under ACGL's share repurchase authorization, under which repurchases may be effected from time to time in open market or privately negotiated transactions through December 31, 2012.

Table of Contents

**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, 2011 to the cumulative total return, assuming reinvestment of dividends, of (1) 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, 2006. The closing price for our common shares on December 30, 2011 (*i.e.*, the last trading day in 2011) was \$37.23.

(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 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.

Table of Contents**ITEM 6. SELECTED FINANCIAL DATA**

The following table sets forth summary historical consolidated financial and operating data for the five-year period ended December 31, 2011 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.

(U.S. dollars in thousands except share data)	Year Ended December 31,				
	2011	2010	2009	2008	2007
<b>Statement of Income Data:</b>					
Revenues:					
Net premiums written	\$ 2,673,326	\$ 2,511,040	\$ 2,763,112	\$ 2,805,726	\$ 2,901,936
Net premiums earned	2,631,815	2,552,483	2,842,745	2,845,454	2,944,650
Net investment income	338,198	364,878	390,131	468,080	463,241
Equity in net income (loss) of investment funds accounted for using the equity method	(9,605)	61,400	167,819	(178,608)	(171)
Net realized gains (losses)	110,646	252,751	143,582	(3,939)	58,338
Total revenues	3,063,307	3,244,067	3,501,622	2,966,813	3,452,445
Income before income taxes	427,012	850,456	897,653	304,505	873,544
Net Income	\$ 436,358	\$ 842,588	\$ 876,945	\$ 290,966	\$ 857,943
Preferred dividends	(25,844)	(25,844)	(25,844)	(25,844)	(25,844)
Net income available to common shareholders	\$ 410,514	\$ 816,744	\$ 851,101	\$ 265,122	\$ 832,099
Diluted net income per share	\$ 2.97	\$ 5.18	\$ 4.58	\$ 1.36	\$ 3.76
Cash dividends per share					
After-tax operating income available to common shareholders(1)	\$ 303,577	\$ 491,074	\$ 651,805	\$ 537,386	\$ 846,458
After-tax operating income available to common shareholders per share diluted(1)	\$ 2.20	\$ 3.12	\$ 3.51	\$ 2.76	\$ 3.83
After-tax operating return on average common equity(2)	7.2%	12.0%	18.3%	15.8%	24.3%
Weighted average common shares and common share equivalents outstanding diluted	138,289,702	157,565,157	185,781,396	194,367,156	221,287,257

(1) After-tax operating income available to common shareholders is defined as net income available to common shareholders, excluding net realized gains or losses, net impairment losses included in earnings, equity in net income or loss of investment funds accounted for using the equity method and net foreign exchange gains or losses, net of income taxes. The presentation of after-tax operating income available to common shareholders is a "non-GAAP financial measure" as defined in Regulation G. See "Management's Discussion and Analysis General Comment on Non-GAAP Financial Measures" for further details.

(2) Equals after-tax operating income available to common shareholders divided by the average of beginning and ending common shareholders' equity for each period presented.

Table of Contents

December 31,

(U.S. dollars in thousands except share data)	2011	2010	2009	2008	2007
<b>Balance Sheet Data:</b>					
Total investments and cash(1)	\$ 12,333,544	\$ 11,986,560	\$ 11,325,112	\$ 9,992,239	\$ 10,129,663
Premiums receivable	501,563	503,434	595,030	628,951	729,628
Reinsurance recoverables on unpaid and paid losses and loss adjustment expenses	1,851,584	1,763,985	1,720,270	1,792,429	1,741,908
Total assets	17,141,769	16,279,228	15,797,424	14,909,055	15,845,311
Reserves for losses and loss adjustment expenses:					
Before unpaid losses and loss adjustment expenses recoverable	8,456,210	8,098,454	7,873,412	7,666,957	7,092,452
Net of unpaid losses and loss adjustment expenses recoverable	6,638,163	6,395,253	6,213,912	5,937,822	5,482,833
Unearned premiums:					
Before prepaid reinsurance premiums	1,411,872	1,370,075	1,433,331	1,526,682	1,765,881
Net of prepaid reinsurance premiums	1,146,176	1,106,627	1,155,346	1,222,975	1,285,419
Senior notes	300,000	300,000	300,000	300,000	300,000
Revolving credit agreement borrowings	100,000	100,000	100,000	100,000	
Total liabilities	12,513,283	11,766,225	11,474,075	11,476,090	11,809,500
Common shareholders' equity	\$ 4,303,486	\$ 4,188,003	\$ 3,998,349	\$ 3,107,965	\$ 3,710,811
Preferred shareholders' equity	325,000	325,000	325,000	325,000	325,000
Total shareholders' equity	\$ 4,628,486	\$ 4,513,003	\$ 4,323,349	\$ 3,432,965	\$ 4,035,811
Book value per common share(2)	\$ 32.03	\$ 29.99	\$ 24.34	\$ 17.12	\$ 18.37
Common shares outstanding, net of treasury shares(3)	134,358,345	139,632,225	164,285,034	181,535,922	201,955,398

- (1) In our securities lending transactions, we receive 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, we have excluded collateral received and reinvested and included "fixed maturities and short-term investments pledged under securities lending agreements, at fair value."
- (2) Excludes the effects of stock options and restricted stock units.
- (3) Reflects the impact of our share repurchase program.

**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. Tabular amounts are in U.S. Dollars in thousands, except share amounts, unless otherwise noted.

Table of Contents

**GENERAL**

**Overview**

Arch Capital Group Ltd. ("ACGL" and, together with its subsidiaries, "we" or "us") is a Bermuda public limited liability company with approximately \$5.03 billion in capital at December 31, 2011 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.

**Current Outlook**

The broad market environment continues to be competitive with most long-tail product lines having plenty of capacity available. From a rate standpoint, most lines of business moved into positive territory in the second half of 2011. However, even with this slight improvement in the rate environment, additional rate increases are needed in many lines in order for us to achieve adequate returns. In the property and property catastrophe areas, the environment improved with the best increases to date reflected in international, catastrophe exposed businesses. Such improvements were driven, in part, by the impact of higher than expected 2011 catastrophic activity. Our underwriting teams continue to execute a disciplined strategy by emphasizing small and medium-sized accounts over large accounts and by focusing more on short-tail business.

Our objective is to achieve an average operating return on average equity of 15% or greater over the insurance cycle, which we believe to be an attractive return to our common shareholders given the risks we assume. We continue to look for opportunities to find acceptable books of business to underwrite without sacrificing underwriting discipline and continue to believe that the most attractive area from a pricing point of view remains catastrophe-exposed business. We expect that catastrophe-exposed business will continue to represent a significant proportion of our overall book, which could increase the volatility of our operating results.

The current economic conditions could continue to 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 and in determining our investment strategies.

Table of Contents

In addition, the impact of the continuing weakness of the U.S., European countries and other key economies, projected budget deficits for the U.S., European countries and other governments and the consequences associated with possible additional downgrades of securities of the U.S., European countries and other governments by credit rating agencies is inherently unpredictable and could have a material adverse effect on financial markets and economic conditions in the U.S. and throughout the world. In turn, this could have a material adverse effect on our business, financial condition and results of operations and, in particular, this could have a material adverse effect on the value and liquidity of securities in our investment portfolio.

**Natural Catastrophe Risk**

We monitor our natural catastrophe risk globally for all perils and regions, in each case, where we believe there is significant exposure. Our models employ both proprietary and vendor-based systems and include cross-line correlations for property, marine, offshore energy, aviation, workers compensation and personal accident. Currently, we seek to limit our 1-in-250 year return period net probable maximum pre-tax loss from a severe catastrophic event in any geographic zone to approximately 25% of total shareholders' equity. We reserve the right to change this threshold at any time. Based on in-force exposure estimated as of January 1, 2012, our modeled peak zone catastrophe exposure (using the updated vendor-based system version) is a windstorm affecting the Gulf of Mexico, with a net probable maximum pre-tax loss of \$881 million, followed by windstorms affecting the Northeastern U.S. and Florida Tri-County with net probable maximum pre-tax losses of \$842 million and \$638 million, respectively. Our exposures to other perils, such as U.S. earthquake and international events, are less than the exposures arising from U.S. windstorms and hurricanes. As of January 1, 2012, our modeled peak zone earthquake exposure (Los Angeles area earthquake) represented less than 50% of our peak zone catastrophe exposure, and our modeled peak zone international exposure (United Kingdom windstorm) is substantially less than both our peak zone windstorm and earthquake exposures. Net probable maximum pre-tax loss estimates are net of expected reinsurance recoveries, before income tax and before excess reinsurance reinstatement premiums. Loss estimates are reflective of the zone indicated and not the entire portfolio. Since hurricanes and windstorms can affect more than one zone and make multiple landfalls, our loss estimates include clash estimates from other zones.

The loss estimates shown above do not represent our maximum exposures and it is highly likely that our actual incurred losses would vary materially from the modeled estimates. There can be no assurances that we will not suffer a net loss 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, 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. 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."

**Financial Measures**

Management uses the following three key financial indicators in evaluating our performance and measuring the overall growth in value generated for ACGL's common shareholders:

***Book Value per Common Share***

Book value per common share represents total common shareholders' equity divided by the number of common shares outstanding. Management uses growth in book value per common share as a



Table of Contents

key measure of the value generated for our common shareholders each period and believes that book value per common share is the key driver of ACGL's common share price over time. Book value per common share is impacted by, among other factors, our underwriting results, investment returns and share repurchase activity, which has an accretive or dilutive impact on book value per common share depending on the purchase price.

Book value per common share was \$32.03 at December 31, 2011, a 6.8% increase from \$29.99 at December 31, 2010. The growth in 2011 was generated through underwriting results and investment returns and also reflects the accretive impact of share repurchase activity.

***After-Tax Operating Return on Average Common Equity***

After-tax operating return on average common equity ("Operating ROAE") represents after-tax operating income available to common shareholders divided by the average of beginning and ending common shareholders' equity during the period. After-tax operating income available to common shareholders, a "non-GAAP measure" as defined in the SEC rules, represents net income available to common shareholders, excluding net realized gains or losses, net impairment losses recognized in earnings, equity in net income or loss of investment funds accounted for using the equity method and net foreign exchange gains or losses, net of income taxes. Management uses Operating ROAE as a key measure of the return generated to common shareholders and has set an objective to achieve an average Operating ROAE of 15% or greater over the insurance cycle, which it believes to be an attractive return to common shareholders given the risks we assume. See "Comment on Non-GAAP Financial Measures."

Our Operating ROAE was 7.2% for 2011, compared to 12.0% for 2010 and 18.3% for 2009. The lower level of Operating ROAE for 2011 than in 2010 was primarily due to a higher amount of losses from catastrophic events and also reflected the impact of current insurance and reinsurance market conditions and the impact of lower interest yields on the investment portfolio. The lower level of Operating ROAE for 2010 compared to 2009 was also due to the impact of higher losses from catastrophic events, market conditions and lower interest yields.

***Total Return on Investments***

Total return on investments includes net investment income, equity in net income or loss of investment funds accounted for using the equity method, net realized gains and losses and the change in unrealized gains and losses generated by our investment portfolio. Total return is calculated on a pre-tax basis and before investment expenses and includes the effect of financial market conditions along with foreign currency fluctuations. Management uses total return on investments as a key measure of the return generated to common shareholders on the capital held in the business, and compares the return generated by our investment portfolio against a benchmark return index.

The benchmark return index is a customized combination of indices intended to approximate a target portfolio by asset mix and average credit quality while also matching the approximate estimated duration and currency mix of our insurance and reinsurance liabilities. Although the estimated duration and average credit quality of this index will move as the duration and rating of its constituent securities change, generally we do not adjust the composition of the benchmark return index. The benchmark return index should not be interpreted as expressing a preference for or aversion to any particular sector or sector weight. The index is intended solely to provide, unlike many master indices that change based on the size of their constituent indices, a relatively stable basket of investable indices.

Table of Contents

At December 31, 2011, the benchmark return index had an average Moody's credit quality of "Aa1", an estimated duration of 3.21 years and included weightings to the following indices:

	<b>Weighting</b>
Merrill Lynch Unsubordinated U.S. Treasuries/Agencies, 1-10 Years Index	30.875%
Merrill Lynch U.S. Corporates and All Yankees, 1-10 Years Index	20.875%
Merrill Lynch Mortgage Master Index	11.875%
Barclays Capital CMBS, AAA Index	10.000%
Merrill Lynch Municipals, 1-10 Years Index	7.125%
MSCI World Free Index	5.000%
Merrill Lynch U.S. Treasury Bills, 0-3 Months Index	4.750%
Merrill Lynch U.S. High Yield Master II Constrained Index	2.375%
Barclays Capital U.S. High-Yield Corporate Loan Index	2.375%
Merrill Lynch U.K. Gilts, 1-10 Years Index	2.375%
Merrill Lynch EMU Direct Government 1-10 Years Index	2.375%
<b>Total</b>	<b>100.000%</b>

The following table summarizes the pre-tax total return (before investment expenses) of our investment portfolio compared to the benchmark return against which we measured our portfolio during the periods:

	<b>Arch Portfolio(1)</b>	<b>Benchmark Return</b>
Pre-tax total return (before investment expenses):		
Year ended December 31, 2011	3.81%	4.80%
Year ended December 31, 2010	7.00%	6.38%
Year ended December 31, 2009	11.28%	9.71%

(1) Our investment expenses were approximately 0.22%, 0.19% and 0.20%, respectively, of average invested assets in 2011, 2010 and 2009.

Total return for our investment portfolio underperformed that of the benchmark return index in 2011. The lower return was due, in part, to the impact of global economic and investment market conditions on our alternative assets and high yield corporate bonds, with risk aversion in the second half of 2011 impacting returns across our portfolio. Excluding foreign exchange, total return was 4.10% for 2011, compared to 7.26% for 2010 and 10.56% for 2009.

**Comment on Non-GAAP Financial Measures**

Throughout this filing, we present our operations in the way we believe will be the most meaningful and useful to investors, analysts, rating agencies and others who use our financial information in evaluating the performance of our company. This presentation includes the use of after-tax operating income available to common shareholders, which is defined as net income available to common shareholders, excluding net realized gains or losses, net impairment losses recognized in earnings, equity in net income or loss of investment funds accounted for using the equity method and net foreign exchange gains or losses, net of income taxes. The presentation of after-tax operating income available to common shareholders is a "non-GAAP financial measure" as defined in Regulation G. The reconciliation of such measure to net income available to common shareholders (the most directly comparable GAAP financial measure) in accordance with Regulation G is included under "Results of Operations" below.

Table of Contents

We believe that net realized gains or losses, net impairment losses recognized in earnings, equity in net income or loss of investment funds accounted for using the equity method and net foreign exchange gains or losses in any particular period are not indicative of the performance of, or trends in, our business. Although net realized gains or losses, net impairment losses recognized in earnings, equity in net income or loss of investment funds accounted for using the equity method and net foreign exchange gains or losses are an integral part of our operations, the decision to realize investment gains or losses, the recognition of net impairment losses, the recognition of equity in net income or loss of investment funds accounted for using the equity method and the recognition of foreign exchange gains or losses are independent of the insurance underwriting process and result, in large part, from general economic and financial market conditions. Furthermore, certain users of our financial information believe that, for many companies, the timing of the realization of investment gains or losses is largely opportunistic. In addition, net impairment losses recognized in earnings on our investments represent other-than-temporary declines in expected recovery values on securities without actual realization. The use of the equity method on certain of our investments in certain funds that invest in fixed maturity securities is driven by the ownership structure of such funds (either limited partnerships or limited liability companies). 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 fair value of the underlying securities in the funds). This method of accounting is different from the way we account for our other fixed maturity securities and the timing of the recognition of equity in net income or loss of investment funds accounted for using the equity method may differ from gains or losses in the future upon sale or maturity of such investments. Due to these reasons, we exclude net realized gains or losses, net impairment losses recognized in earnings, equity in net income or loss of investment funds accounted for using the equity method and net foreign exchange gains or losses from the calculation of after-tax operating income available to common shareholders.

We believe that showing net income available to common shareholders exclusive of the items referred to above reflects the underlying fundamentals of our business since we evaluate the performance of and manage our underwriting to produce a profit. In addition to presenting net income available to common shareholders, we believe that this presentation enables investors and other users of our financial information to analyze our performance in a manner similar to how management analyzes performance. We also believe that this measure follows industry practice and, therefore, allows the users of financial information to compare our performance with our industry peer group. We believe that the equity analysts and certain rating agencies which follow us and the insurance industry as a whole generally exclude these items from their analyses for the same reasons.

**RESULTS OF OPERATIONS**

The following table summarizes, on an after-tax basis, our consolidated financial data, including a reconciliation of after-tax operating income available to common shareholders to net income available to common shareholders:

	Year Ended December 31,		
	2011	2010	2009
After-tax operating income available to common shareholders	\$ 303,577	\$ 491,074	\$ 651,805
Net realized gains, net of tax	108,306	247,054	137,428
Net impairment losses recognized in earnings, net of tax	(9,062)	(11,321)	(66,056)
Equity in net income (loss) of investment funds accounted for using the equity method, net of tax	(9,605)	61,400	167,819
Net foreign exchange gains (losses), net of tax	17,298	28,537	(39,895)
Net income available to common shareholders	\$ 410,514	\$ 816,744	\$ 851,101

Table of Contents

The lower level of after-tax operating income in 2011 than in 2010 was primarily due to a higher amount of losses from catastrophic events and also reflected the impact of current insurance and reinsurance market conditions and the impact of lower interest yields on the investment portfolio.

**Segment Information**

We classify our businesses into two underwriting segments—insurance and reinsurance and corporate and other (non-underwriting). Accounting guidance regarding disclosures about segments of an enterprise and related information requires certain disclosures about operating segments in a manner that is consistent with how management evaluates the performance of the segment. For a description of our underwriting segments, refer to Note 3, "Segment Information," of the notes accompanying our consolidated financial statements. Management measures segment performance based on underwriting income or loss.

*Insurance Segment*

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

	Year Ended December 31,			Year Ended December 31,		
	2011	2010	% Change	2010	2009	% Change
Gross premiums written	\$ 2,444,485	\$ 2,402,202	1.8	\$ 2,402,202	\$ 2,512,127	(4.4)
Net premiums written	1,721,279	1,658,963	3.8	1,658,963	1,704,284	(2.7)
Net premiums earned	1,679,047	1,651,106	1.7	1,651,106	1,688,519	(2.2)
Fee income	2,870	3,252		3,252	3,362	
Losses and loss adjustment expenses	(1,172,742)	(1,117,564)		(1,117,564)	(1,139,415)	
Acquisition expenses, net	(278,696)	(263,201)		(263,201)	(238,261)	
Other operating expenses	(306,801)	(312,404)		(312,404)	(281,340)	
Underwriting income (loss)	\$ (76,322)	\$ (38,811)	n/m	\$ (38,811)	\$ 32,865	n/m
			<b>% Point Change</b>			<b>% Point Change</b>
<b>Underwriting Ratios</b>						
Loss ratio	69.8%	67.7%	2.1	67.7%	67.5%	0.2
Acquisition expense ratio(1)	16.4%	15.7%	0.7	15.7%	13.9%	1.8
Other operating expense ratio	18.3%	18.9%	(0.6)	18.9%	16.7%	2.2
Combined ratio	104.5%	102.3%	2.2	102.3%	98.1%	4.2

(1)

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

The components of the insurance segment's underwriting results are discussed below.

Table of Contents*Premiums Written.*

The following table sets forth our insurance segment's net premiums written by major line of business:

	Year Ended December 31,					
	2011		2010		2009	
	Amount	%	Amount	%	Amount	%
Property, energy, marine and aviation	\$ 335,589	20	\$ 321,529	19	\$ 353,761	21
Programs	297,985	17	273,076	17	274,735	16
Professional liability	237,860	14	268,176	16	258,187	15
Executive assurance	231,405	13	219,458	13	220,088	13
Construction	120,405	7	112,827	7	131,792	8
Casualty	114,235	7	107,962	7	103,546	6
Lenders products	86,694	5	92,921	6	75,357	4
National accounts	80,973	5	67,925	4	79,088	5
Travel and accident	71,940	4	71,237	4	68,617	4
Surety	42,475	2	34,149	2	43,353	3
Healthcare	35,652	2	37,508	2	42,350	2
Other(1)	66,066	4	52,195	3	53,410	3
<b>Total</b>	<b>\$ 1,721,279</b>	<b>100</b>	<b>\$ 1,658,963</b>	<b>100</b>	<b>\$ 1,704,284</b>	<b>100</b>

- (1) Includes excess workers' compensation, employer's liability, alternative markets and accident and health business.

*2011 versus 2010:* Increases in property and energy business as well as in program business, national accounts and executive assurance were partially offset by reductions in commercial aviation and professional liability lines of business. The increase in property premiums primarily resulted from new business and a higher retention rate on existing accounts in the insurance segment's U.S. operations and growth in the insurance segment's European operations in both global property and energy lines. The increase in national accounts resulted from new business while the increase in program business resulted from growth on existing programs. The reduction in commercial aviation business primarily resulted from a strategic decision to exit the business in early 2010 while the lower level of professional liability business was primarily due to market conditions.

*2010 versus 2009:* Decreases in commercial aviation, construction, national accounts and surety lines of business were partially offset by increases in lenders products. The reduction in commercial aviation business primarily resulted from a strategic decision to exit the business, while the lower level of construction and surety lines was due to market conditions. The higher level of lenders products business was generated through new business opportunities.

Table of Contents

*Net Premiums Earned.*

The following table sets forth our insurance segment's net premiums earned by major line of business:

	Year Ended December 31,					
	2011		2010		2009	
	Amount	%	Amount	%	Amount	%
Property, energy, marine and aviation	\$ 322,510	19	\$ 335,967	20	\$ 338,430	20
Programs	287,598	17	272,406	17	275,586	16
Professional liability	252,037	15	264,603	16	255,117	15
Executive assurance	228,623	14	218,135	13	212,962	13
Construction	112,764	7	109,394	7	139,963	8
Casualty	111,654	7	109,613	7	121,146	7
National accounts	79,542	5	74,538	5	67,093	4
Lenders products	75,291	4	71,170	4	62,906	4
Travel and accident	69,945	4	66,791	4	66,127	4
Surety	41,119	2	37,967	2	49,219	3
Healthcare	35,906	2	39,722	2	43,947	3
Other(1)	62,058	4	50,800	3	56,023	3
<b>Total</b>	<b>\$ 1,679,047</b>	<b>100</b>	<b>\$ 1,651,106</b>	<b>100</b>	<b>\$ 1,688,519</b>	<b>100</b>

(1) Includes excess workers' compensation, employer's liability, alternative markets and accident and health business.

Net premiums earned by the insurance segment were 1.7% higher in 2011 than in 2010, reflecting changes in net premiums written over the previous five quarters. Net premiums earned by the insurance segment were 2.2% lower in 2010 than in 2009.

*Losses and Loss Adjustment Expenses.* The table below shows the components of the insurance segment's loss ratio:

	Year Ended December 31,		
	2011	2010	2009
Current year	72.9%	68.9%	70.3%
Prior period reserve development	(3.1)%	(1.2)%	(2.8)%
<b>Loss ratio</b>	<b>69.8%</b>	<b>67.7%</b>	<b>67.5%</b>

Current Year Loss Ratio.

*2011 versus 2010:* The insurance segment's current year loss ratio was 4.0 points higher in 2011 than in 2010. The 2011 loss ratio included 6.5 points of current year catastrophic event activity, compared to 1.9 points in the 2010. Specific 2011 catastrophic events included the severe flooding in Thailand, the Japanese earthquake and Tsunami and various U.S. wind/rain events.

*2010 versus 2009:* The insurance segment's current year loss ratio was 1.4 points lower in 2010 than in 2009. The 2010 loss ratio benefited from a lower level of large, specific risk loss activity than in 2009. In addition, the 2010 loss ratio included 1.9 points for current year catastrophic event activity, while the 2009 loss ratio did not include any significant catastrophic event activity. Specific 2010 catastrophic events included the Chilean earthquake and the 2010 fourth quarter Queensland, Australia floods.

Table of ContentsPrior Period Reserve Development.

*2011 prior period reserve development:* The insurance segment's net favorable development of \$52.1 million, or 3.1 points of net premiums earned, consisted of net favorable development of \$75.7 million from short-tailed lines, partially offset by \$23.6 million of net adverse development from medium-tailed and long-tailed lines. Favorable development in short-tailed lines reflected \$67.2 million of favorable development in property reserves, including \$18.1 million, \$19.3 million and \$31.1 million, respectively, from the 2008 to 2010 accident years (*i.e.*, the year in which a loss occurred), and \$7.5 million of favorable development in surety business, including \$2.7 million, \$4.2 million and \$5.0 million from the 2004, 2008 and 2009 accident years, partially offset by \$3.8 million of adverse development from the 2006 accident year. The reduction of loss estimates in 2011 for the insurance segment's short-tailed lines included an aggregate of \$23.0 million of favorable development from the 2005, 2008 and 2010 named catastrophic events. In addition, adverse development in alternative markets business from the 2009 to 2010 accident years of \$9.3 million, which was primarily related to experience on a single account, was partially offset by \$8.0 million of favorable development from the 2004 to 2008 accident years. The adverse development on longer-tailed lines primarily resulted from \$32.3 million of increases in casualty reserves which included \$14.3 million of adverse development, primarily from the 2005 and 2007 accident years, on New York residential contractors business based on the most recent actuarial analyses, \$8.5 million of adverse development on a 2010 accident year energy casualty claim, and \$9.5 million from other commercial claims. In addition, there was \$9.8 million of adverse development in program business, including \$2.8 million and \$6.8 million from the 2003 and 2004 accident years on a small number of programs. Favorable development was indicated on healthcare business, with \$13.8 million of releases from the 2004 to 2008 accident years resulting from a continuation of better than expected loss emergence, and on marine business, with \$4.6 million of releases in the 2009 accident year. Development in professional lines (professional liability and executive assurance) was minimal in the aggregate, with adverse development of \$3.0 million, \$10.4 million and \$11.6 million in the 2006, 2008 and 2010 accident years substantially offset by favorable development of \$8.2 million and \$15.2 million from the 2007 and 2009 accident years.

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

Table of Contents

*2009 prior period reserve development:* The insurance segment's net favorable development of \$47.1 million, or 2.8 points, was primarily due to reductions in reserves in medium-tailed and short-tailed lines of business. Such amount included favorable development in professional liability reserves from the 2005 to 2007 accident years of \$6.3 million, \$16.1 million and \$8.6 million, respectively, and adverse development on the 2008 accident year of \$9.4 million. In addition, favorable development on construction reserves from the 2005 and 2006 accident years contributed \$10.6 million and \$5.4 million, respectively, which resulted from lower than expected large loss activity. Favorable development in short-tailed lines primarily consisted of reductions in property reserves from the 2007 and 2008 accident years of \$9.4 million and \$11.1 million, respectively. Offsetting favorable development on medium-tailed and short-tailed lines of business were increases in executive assurance reserves for the 2007 and 2008 accident years of \$14.8 million and \$28.3 million, respectively, due to large specific risk loss activity relating to the credit crisis, partially offset by favorable development in the 2004 to 2006 accident years of \$4.1 million, \$17.5 million and \$3.6 million, respectively. Reductions in the 2004 to 2006 accident years relate to less large loss activity than expected in commercial D&O, a distinctive downward trend in security class action cases filed from 2004 through 2006, and to the claims-made nature of the coverage. The claims-made aspect eliminates the potential of new claims being reported for these years, and narrows the remaining liability to changes in reserve estimation for claims which have already been reported.

Underwriting Expenses.

*2011 versus 2010:* The insurance segment's underwriting expense ratio was 34.7% in 2011, compared to 34.6% in 2010. The acquisition expense ratio was 16.4% for 2011, compared to 15.7% for 2010. The acquisition expense ratio is influenced by, among other things, (1) the amount of ceding commissions received from reinsurers, (2) the amount of business written on a surplus lines (non-admitted) basis and (3) mix of business. In addition, the 2011 acquisition expense ratio included 0.5 points related to favorable reserve development in prior accident years on certain contracts with variable commission structures, compared to a 0.4 points in 2010, and also reflected changes in the form of reinsurance ceded and mix of business. The insurance segment's other operating expense ratio was 18.3% for 2011, compared to 18.9% for 2010. The 2010 operating expense ratio reflected 0.4 points related to an accrual for certain employee benefit costs recorded in 2010 that did not recur in 2011.

*2010 versus 2009:* The insurance segment's underwriting expense ratio was 34.6% in 2010, compared to 30.6% in 2009. The acquisition expense ratio was 15.7% for 2010, compared to 13.9% for 2009. The 2010 acquisition expense ratio included 0.4 points related to prior year reserve development, compared to a 0.2 points in 2009, included a higher level of premium assessments and other charges and reflected changes in the form of reinsurance ceded and mix of business. The insurance segment's other operating expense ratio was 18.9% for 2010, compared to 16.7% for 2009. The 2010 operating expense ratio reflected 0.4 points related to an accrual for certain employee benefit costs and also reflected expenses related to the expansion of the insurance segment's presence in executive assurance business.



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

Table of Contents

*Reinsurance Segment*

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

	Year Ended December 31,			Year Ended December 31,		
	2011	2010	% Change	2010	2009	% Change
Gross premiums written	\$ 998,520	\$ 874,957	14.1	\$ 874,957	\$ 1,093,940	(20.0)
Net premiums written	952,047	852,077	11.7	852,077	1,058,828	(19.5)
Net premiums earned	952,768	901,377	5.7	901,377	1,154,226	(21.9)
Fee income	559	2,113		2,113	100	
Losses and loss adjustment expenses	(554,811)	(400,151)		(400,151)	(515,259)	
Acquisition expenses, net	(184,241)	(178,001)		(178,001)	(255,299)	
Other operating expenses	(93,299)	(91,523)		(91,523)	(80,567)	
Underwriting income	\$ 120,976	\$ 233,815	(48.3)	\$ 233,815	\$ 303,201	(22.9)

Underwriting Ratios	% Point Change			% Point Change		
Loss ratio	58.2%	44.4%	13.8	44.4%	44.6%	(0.2)
Acquisition expense ratio	19.3%	19.7%	(0.4)	19.7%	22.1%	(2.4)
Other operating expense ratio	9.8%	10.2%	(0.4)	10.2%	7.0%	3.2
Combined ratio	87.3%	74.3%	13.0	74.3%	73.7%	0.6

The components of the reinsurance segment's underwriting results are discussed below.

Premiums Written.

The following table sets forth our reinsurance segment's net premiums written by major line of business:

	Year Ended December 31,					
	2011		2010		2009	
	Amount	%	Amount	%	Amount	%
Property catastrophe	\$ 246,793	26	\$ 202,989	24	\$ 237,445	23
Property excluding property catastrophe(1)	226,013	24	249,791	29	349,915	33
Other specialty	211,019	22	131,158	15	65,189	6
Casualty(2)	181,957	19	186,774	22	325,699	31
Marine and aviation	77,309	8	77,063	9	77,677	7
Other	8,956	1	4,302	1	2,903	
Total	\$ 952,047	100	\$ 852,077	100	\$ 1,058,828	100
Pro rata	\$ 416,321	44	\$ 411,962	48	\$ 586,212	55
Excess of loss	535,726	56	440,115	52	472,616	45
Total	\$ 952,047	100	\$ 852,077	100	\$ 1,058,828	100

(1)

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

Includes facultative business.

(2)

Includes professional liability, executive assurance and healthcare business.

*2011 versus 2010:* Increases in property catastrophe and other specialty lines were partially offset by a decrease in property other than property catastrophe and casualty business. The growth in

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

### Table of Contents

premiums written in the property catastrophe line in 2011 reflected share increases, new business following the 2011 catastrophic events and higher premiums on in force contracts due to market conditions. The higher level of other specialty business primarily resulted from a new opportunity in U.K. motor business written, and growth in accident and health and trade credit business. Premiums written in casualty and property other than property catastrophe lines were lower than in 2010, reflecting non-renewals and share reductions based on market conditions.

*2010 versus 2009:* Reductions in casualty and property other than property catastrophe business were partially offset by growth in the reinsurance segment's other specialty line. The decrease in casualty and property business in 2010 resulted from the impact of non-renewals of a number of contracts and contract participation decreases, reflecting the impact of current market conditions. The increase in other specialty business primarily resulted from new business written in accident and health and trade credit.

#### *Net Premiums Earned.*

The following table sets forth our reinsurance segment's net premiums earned by major line of business:

	Year Ended December 31,					
	2011		2010		2009	
	Amount	%	Amount	%	Amount	%
Property excluding property catastrophe(1)	\$ 243,702	25	\$ 282,163	31	\$ 373,088	32
Property catastrophe	238,748	25	215,148	24	236,073	20
Casualty(2)	196,370	21	231,338	26	344,938	30
Other specialty	189,093	20	95,611	11	106,698	10
Marine and aviation	77,819	8	72,886	8	90,441	8
Other	7,036	1	4,231		2,988	
<b>Total</b>	<b>\$ 952,768</b>	<b>100</b>	<b>\$ 901,377</b>	<b>100</b>	<b>\$ 1,154,226</b>	<b>100</b>
Pro rata	\$ 435,311	46	\$ 449,532	50	\$ 704,470	61
Excess of loss	517,457	54	451,845	50	449,756	39
<b>Total</b>	<b>\$ 952,768</b>	<b>100</b>	<b>\$ 901,377</b>	<b>100</b>	<b>\$ 1,154,226</b>	<b>100</b>

(1) Includes facultative business.

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

Net premiums earned in 2011 were 5.7% higher than in 2010, reflecting changes in net premiums written over the previous five quarters, including the mix and type of business written. Net premiums earned in 2010 were 21.9% lower than in 2009.

*Losses and Loss Adjustment Expenses.* The table below shows the components of the reinsurance segment's loss ratio:

	Year Ended December 31,		
	2011	2010	2009
Current year	82.6%	58.6%	56.9%
Prior period reserve development	(24.4)%	(14.2)%	(12.3)%
<b>Loss ratio</b>	<b>58.2%</b>	<b>44.4%</b>	<b>44.6%</b>

Table of ContentsCurrent Year Loss Ratio.

*2011 versus 2010:* The reinsurance segment's current year loss ratio was 24.0 points higher in 2011 than in 2010. The 2011 loss ratio included 31.0 points for current year catastrophic event activity, compared to 9.9 points in 2010. Specific 2011 catastrophic events included the severe flooding in Thailand, the Japanese earthquake and Tsunami, the New Zealand earthquake events and various U.S. wind/rain events.

*2010 versus 2009:* The reinsurance segment's current year loss ratio was 1.7 points higher in 2010 than in 2009. The 2010 loss ratio included 9.9 points for current year catastrophic event activity, compared to 2.0 points in 2009. Specific 2010 catastrophic events included the Chilean and New Zealand earthquakes, the 2010 first quarter Australian hailstorm and flood event and the 2010 fourth quarter Queensland, Australia floods. In addition, 2010 benefited from a higher percentage of property (both treaty and facultative) and short-tail business than in 2009. Net premiums earned in property and other short-tailed lines were approximately 74% of the total for 2010, compared to 70% in 2009.

Prior Period Reserve Development.

*2011 prior period reserve development:* The reinsurance segment's net favorable development of \$232.9 million, or 24.4 points of net premiums earned, consisted of \$118.5 million from short-tailed lines, \$99.0 million from long-tailed lines and \$15.4 million from medium-tailed lines. Favorable development in short-tailed lines included \$97.6 million of favorable development from property catastrophe and property other than property catastrophe reserves. Such amount included reductions of \$7.5 million, \$25.8 million and \$59.8 million from the 2007, 2009 and 2010 underwriting years, respectively, and \$4.5 million from all other underwriting years. In addition, favorable development on short-tailed lines included \$20.8 million in other specialty business, including \$3.7 million, \$2.2 million, \$6.2 million and \$2.7 million, respectively, from the 2007 to 2010 underwriting years, respectively, and \$6.0 million from prior underwriting years. The reduction of loss estimates for the reinsurance segment's short-tailed lines primarily resulted from a lower level of reported and paid claims activity than previously anticipated which led to decreases in certain loss ratio selections during 2011. The reduction of loss estimates in 2011 for the reinsurance segment's short-tailed lines included an aggregate of \$19.4 million of favorable development from the 2005, 2008 and 2010 named catastrophic events. Net favorable development of \$99.0 million in long-tailed lines included reductions in casualty reserves from the 2002 to 2007 underwriting years of \$14.1 million, \$16.6 million, \$30.9 million, \$24.7 million, \$11.3 million and \$16.2 million, respectively, which primarily resulted from a lower level of reported and paid claims activity than previously anticipated on U.S. and international excess liability, professional liability and D&O lines. Such amounts were partially offset by adverse development of \$2.2 million and \$12.4 million from the 2008 and 2009 underwriting years, respectively, on long-tailed lines which primarily resulted from increases in loss selections due to the reinsurance segment's view of the current insurance environment. Favorable development on medium-tailed lines resulted from reductions in marine and aviation reserves of \$2.3 million, \$2.2 million and \$6.7 million, respectively, from the 2006 to 2008 underwriting years and \$4.2 million from other underwriting years. The reinsurance segment's 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.

*2010 prior period reserve development:* The reinsurance segment's net favorable development of \$127.6 million, or 14.2 points, consisted of \$84.2 million from short-tailed lines, \$34.1 million from long-tailed lines and \$9.3 million from medium-tailed lines. Favorable development in short-tailed lines included \$61.0 million of favorable development from property catastrophe and property other than property catastrophe reserves. Such amount included reductions of \$9.4 million, \$11.2 million and \$28.6 million from the 2007, 2008 and 2009 underwriting years, respectively, and \$11.8 million from prior underwriting years. In addition, favorable development in other specialty business included \$4.7 million and \$7.8 million from the 2008 and 2009 underwriting years, respectively, and \$10.7 million

Table of Contents

from prior underwriting years. The reduction of loss estimates for the reinsurance segment's short-tailed lines primarily resulted from a lower level of reported and paid claims activity than previously anticipated which led to decreases in certain loss ratio selections during 2010. Net favorable development of \$34.1 million in long-tailed lines included reductions in casualty reserves from the 2002 to 2006 underwriting years of \$10.8 million, \$17.5 million, \$33.3 million, \$13.5 million and \$5.8 million, respectively, which primarily resulted from a lower level of reported and paid claims activity than previously anticipated on U.S. and international excess liability, professional liability and D&O lines. Such amounts were partially offset by adverse development of \$7.5 million, \$31.9 and \$5.6 million from the 2007 to 2009 underwriting years, respectively, on long-tailed lines which primarily resulted from increases in loss selections due to the reinsurance segment's view of the insurance environment. Favorable development on medium-tailed lines resulted from reductions in marine and aviation reserves of \$8.3 million from the 2007 underwriting year and \$7.7 million from other underwriting years, partially offset by adverse development of \$6.7 million from the 2008 underwriting year.

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

Underwriting Expenses.

*2011 versus 2010:* The underwriting expense ratio for the reinsurance segment was 29.1% in 2011, compared to 29.9% in 2010. The acquisition expense ratio for 2011 was 19.3%, compared to 19.7% for 2010. The comparison of the 2011 and 2010 acquisition expense ratios is influenced by, among other things, the mix and type of business written and earned and the level of ceding commission income. The operating expense ratio for 2011 of 9.8% was lower than the 2010 ratio primarily due to the higher level of net premiums earned.

*2010 versus 2009:* The underwriting expense ratio for the reinsurance segment was 29.9% in 2010, compared to 29.1% in 2009. The acquisition expense ratio for 2010 was 19.7%, compared to 22.1% for 2009. The comparison of the 2010 and 2009 acquisition expense ratios is influenced by, among other things, the mix and type of business written and earned and the level of ceding commission income. The operating expense ratio for 2010 of 10.2% was higher than the 2009 ratio primarily due to the lower level of net premiums earned and a higher contribution to net premiums earned from the reinsurance segment's property facultative operations which operate primarily on a direct basis and, accordingly, at a higher operating expense ratio.

Table of Contents***Net Investment Income***

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

	Year Ended December 31,		
	2011	2010	2009
Fixed maturities	\$ 331,469	\$ 378,682	\$ 404,861
Equity securities	7,332	1,363	
Short-term investments	2,174	1,337	1,897
Other(1)	22,006	3,882	4,413
Gross investment income	362,981	385,264	411,171
Investment expenses	(24,783)	(20,386)	(21,040)
Net investment income	\$ 338,198	\$ 364,878	\$ 390,131

- (1) Includes interest on term loan investments (included in "investments accounted for using the fair value option"), dividends on investment funds and other items.

The pre-tax investment income yield was 2.89% for 2011, compared to 3.34% for 2010 and 3.74% for 2009. The comparability of net investment income between the periods was influenced by our share repurchase program, as well as the decrease in the pre-tax investment income yield, due in part to the prevailing interest rate environment. The pre-tax investment income yields were calculated based on amortized cost. 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***

We recorded \$9.6 million of equity in net losses for 2011, compared to \$61.4 million of equity in net income for 2010 and equity in net income of \$167.8 million for 2009. Such amounts were primarily related to our investments in U.S. and Euro-denominated bank loan funds which use leverage to achieve a higher 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. Losses in 2011 were primarily related to investments in two funds that employ leverage in their investment strategy, one of which that invests in a portfolio of loans and another public-private investment fund ("PPIF") that invests in high quality U.S. residential and commercial mortgages.

***Net Realized Gains (Losses)***

We recorded net realized gains of \$110.6 million, \$252.8 million and \$143.6 million, respectively, for 2011, 2010 and 2009. Currently, our portfolio is actively managed to maximize total return within certain guidelines. In assessing returns under this approach, we include net investment income, net realized gains and losses and the change in unrealized gains and losses generated by our investment portfolio. The effect of financial market movements on the investment portfolio will directly impact net realized gains and losses as the portfolio is adjusted and rebalanced. See note 7, "Investment Information - Net Realized Gains (Losses)," of the notes accompanying our consolidated financial statements for additional information.

Total return on our portfolio under management for 2011 was 3.81%, compared to 7.00% for 2010 and 11.28% for 2009. Excluding foreign exchange, total return was 4.10% for 2011, compared to 7.26% for 2010 and 10.56% for 2009. Total return is calculated on a pre-tax basis and before investment expenses.

Table of Contents

***Net Impairment Losses Recognized in Earnings***

On a quarterly basis, we perform reviews of our available for sale investments to determine whether declines in fair value below the cost basis are considered other-than-temporary in accordance with applicable accounting guidance regarding the recognition and presentation of other-than-temporary impairments. The process of determining whether a security is other-than-temporarily impaired requires judgment and involves analyzing many factors. These factors include (i) an analysis of the liquidity, business prospects and overall financial condition of the issuer, (ii) the time period in which there was a significant decline in value, (iii) the significance of the decline, and (iv) the analysis of specific credit events. We evaluate the unrealized losses of our equity securities by issuer and determine if we can forecast a reasonable period of time by which the fair value of the securities would increase and we would recover our cost. If we are unable to forecast a reasonable period of time in which to recover the cost of our equity securities, we record a net impairment loss in earnings equivalent to the entire unrealized loss. For 2011, we recorded \$9.1 million of credit related impairments in earnings, compared to \$11.3 million in 2010 and \$66.1 million in 2009. The other-than-temporary impairments ("OTTI") recorded in 2011, 2010 and 2009 primarily resulted from reductions in estimated recovery values on certain mortgage-backed and asset-backed securities following the review of such securities. See note 7, "Investment Information Other-Than-Temporary Impairments," of the notes accompanying our consolidated financial statements for additional information.

***Other Expenses***

Other expenses, which are included in our other operating expenses and part of corporate and other (non-underwriting), were \$31.4 million for 2011, compared to \$28.9 million for 2010 and \$30.2 million for 2009. 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 2011 of \$17.4 million consisted of net unrealized gains of \$23.5 million and net realized losses of \$6.1 million, compared to net foreign exchange gains for 2010 of \$28.1 million which consisted of net unrealized gains of \$29.5 million and net realized losses of \$1.4 million. Net foreign exchange losses for 2009 of \$39.2 million consisted of net unrealized losses of \$37.6 million and net realized losses of \$1.6 million. 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. Historically, we have held 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 consolidated statements of income. As a result of the current financial and economic environment as well as the potential for additional investment returns, we may not match a portion of our projected liabilities in foreign currencies with investments in the same currencies, which could increase our exposure to foreign currency fluctuations and increase the volatility in our shareholders' equity.

***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

Table of Contents

nature of estate duty or inheritance tax, such tax will not be applicable to us or our operations until March 31, 2035.

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 include the United States, United Kingdom, Canada, Ireland, Switzerland and Denmark. See "Risk Factors Risks Relating to Taxation" and "Business Tax Matters."

The income tax provision on income before income taxes resulted in a benefit of 2.2% for 2011, compared to an expense of 0.9% for 2010 and 2.3% for 2009. Our effective tax rate fluctuates from year to year consistent with the relative mix of income or loss reported by jurisdiction and the varying tax rates in each jurisdiction. See note 12, "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 2011, 2010 and 2009.

**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, 2011. Actual results will differ from these estimates and such differences may be material. We believe that the following critical accounting policies affect significant 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 loss adjustment expenses ("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 loss adjustment expenses 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.



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

### Table of Contents

At December 31, 2011 and 2010, our Loss Reserves, net of unpaid losses and loss adjustment expenses recoverable, by type and by operating segment were as follows:

	December 31,	
	2011	2010
<b>Insurance:</b>		
Case reserves	\$ 1,311,740	\$ 1,251,896
IBNR reserves	2,783,091	2,590,529
Total net reserves	\$ 4,094,831	\$ 3,842,425
<b>Reinsurance:</b>		
Case reserves	\$ 721,032	\$ 747,545
Additional case reserves	178,640	93,110
IBNR reserves	1,643,660	1,712,173
Total net reserves	\$ 2,543,332	\$ 2,552,828
<b>Total:</b>		
Case reserves	\$ 2,032,772	\$ 1,999,441
Additional case reserves	178,640	93,110
IBNR reserves	4,426,751	4,302,702
Total net reserves	\$ 6,638,163	\$ 6,395,253

### *Insurance Operations*

Loss Reserves for our insurance operations are comprised of (1) estimated amounts for claims reported ("case reserves") and (2) incurred but not reported ("IBNR") losses. 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 loss adjustment expenses 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 at the balance sheet date as well as to adjust for any projected variance in case reserving. Actuaries estimate ultimate losses and loss adjustment expenses 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 loss adjustment expenses 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 loss adjustment expenses 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 loss adjustment expenses 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

Table of Contents

"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, or 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 loss adjustment expenses, 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 loss adjustment expenses, 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, 2011 and 2010, the insurance segment's Loss Reserves by major line of business, net of unpaid losses and loss adjustment expenses recoverable, were as follows:

	December 31,	
	2011	2010
Casualty	\$ 655,017	\$ 656,446
Professional liability	631,991	603,258
Executive assurance	636,692	598,527
Property, energy, marine and aviation	590,098	519,560
Programs	541,113	504,068
Construction	403,109	391,179
National accounts	169,906	132,064
Healthcare	139,825	145,343
Surety	70,680	79,264
Travel and accident	37,645	31,707
Lenders products	12,332	12,156
Other	206,423	168,853
<b>Total net reserves</b>	<b>\$ 4,094,831</b>	<b>\$ 3,842,425</b>

Table of Contents

The initial 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. Our insurance operations employ a number of different reserving methods depending on the line of business, the availability of historical loss experience and the stability of that loss experience. Over time, such techniques have been given more weight in the reserving process due to the continuing maturation of their Loss Reserves and the increased availability and credibility of the historical experience. 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 insurance operations through December 31, 2011 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 analyses, 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. More recent accident years rely more heavily 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 loss adjustment expense 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 loss adjustment expenses 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

Table of Contents

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 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 a combination of company and 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 varied, in some cases significantly, from earlier accident years. 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

Table of Contents

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, energy, 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 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

Table of Contents

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 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.

*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 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 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

Table of Contents

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, 2011, 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.

At December 31, 2011 and 2010, the reinsurance segment's Loss Reserves by major line of business, net of unpaid losses and loss adjustment expenses recoverable, were as follows:

	<b>December 31,</b>	
	<b>2011</b>	<b>2010</b>
Casualty	\$ 1,600,887	\$ 1,748,888
Property excluding property catastrophe	336,425	295,425
Property catastrophe	237,804	160,237
Marine and aviation	166,294	194,925
Other specialty	153,455	106,241
Other	48,467	47,112
<b>Total net reserves</b>	<b>\$ 2,543,332</b>	<b>\$ 2,552,828</b>

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, 2011 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

Table of Contents

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. More recent underwriting years rely more heavily 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.

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



Table of Contents*Potential Variability in Loss Reserves*

The tables below summarize the effect of reasonably likely scenarios on the key actuarial assumptions used to estimate our Loss Reserves, net of unpaid losses and loss adjustment expenses recoverable, at December 31, 2011 by operating segment. The scenarios shown in the tables summarize the effect of (i) changes to the expected loss ratio selections used at December 31, 2011, which represent loss ratio point increases or decreases to the expected loss ratios used, and (ii) changes to the loss development patterns used in our reserving process at December 31, 2011, which represent claims reporting that is either slower or faster than the reporting patterns used. We believe that the illustrated sensitivities are indicative of the potential variability inherent in the estimation process of those parameters. The results show the impact of varying each key actuarial assumption using the chosen sensitivity on our IBNR reserves, on a net basis and across all accident years.

INSURANCE SEGMENT	Higher Expected Loss Ratios	Slower Loss Development Patterns	Lower Expected Loss Ratios	Faster Loss Development Patterns
<b>Reserving lines selected assumptions:</b>				
Property, energy, marine and aviation	5 points	3 months	(5) points	(3) months
Third party occurrence business(1)	10	6	(10)	(6)
Third party claims-made business(2)	10	6	(10)	(6)
All other(3)	10	6	(10)	(6)
<b>Increase (decrease) in Loss Reserves, net:</b>				
Property, energy, marine and aviation	\$ 43,617	\$ 50,779	\$ (43,617)	\$ (27,994)
Third party occurrence business(1)	143,451	98,463	(143,451)	(88,921)
Third party claims-made business(2)	129,751	160,477	(129,751)	(106,921)
All other(3)	97,415	73,516	(97,415)	(54,872)

- (1) Third party occurrence business includes casualty, construction, national accounts and excess workers' compensation business.
- (2) Third party claims-made business includes executive assurance, healthcare and professional liability business.
- (3) All other includes programs, surety, travel and accident and other business.

REINSURANCE SEGMENT	Higher Expected Loss Ratios	Slower Loss Development Patterns	Lower Expected Loss Ratios	Faster Loss Development Patterns
<b>Reserving lines selected assumptions:</b>				
Casualty	10 points	6 months	(10) points	(6) months
Property excluding property catastrophe	5	3	(5)	(3)
Marine and aviation	5	3	(5)	(3)
Property catastrophe	5	3	(5)	(3)
Other specialty	5	3	(5)	(3)
Other	5	3	(5)	(3)
<b>Increase (decrease) in Loss Reserves, net:</b>				
Casualty	\$ 135,447	\$ 153,440	\$ (135,447)	\$ (125,912)
Property excluding property catastrophe	12,680	29,501	(12,680)	(28,156)
Marine and aviation	5,053	8,496	(5,053)	(7,683)
Property catastrophe	14,283	22,801	(14,283)	(15,329)
Other specialty	15,771	9,487	(15,771)	(12,407)
Other	2,856	1,162	(2,856)	(1,180)

Table of Contents

It is not necessarily appropriate to sum the total impact for a specific factor or the total impact for a specific business category as the business categories are not perfectly correlated. In addition, the potential variability shown in the tables above are reasonably likely scenarios of changes in our key assumptions at December 31, 2011 and are not meant to be a "best case" or "worst case" series of outcomes and, therefore, it is possible that future variations may be more or less than the amounts set forth above.

*Simulation Results*

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. At December 31, 2011, 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:

	December 31, 2011		
	Insurance	Reinsurance	Total
Total net reserves	\$ 4,094,831	\$ 2,543,332	\$ 6,638,163
Simulation results:			
90th percentile(1)	\$ 4,915,196	\$ 3,265,061	\$ 7,880,231
10th percentile(2)	\$ 3,339,544	\$ 1,918,279	\$ 5,500,892

- (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 \$1.24 billion, or \$8.98 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 \$1.14 billion, or \$8.22 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. It is difficult to provide meaningful trend information for certain liability/casualty coverages for which the claim-tail may be especially long, as claims are often reported and ultimately paid or settled years, or even decades, after the related loss events occur. 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, 2011.

**Ceded Reinsurance**

In the normal course of business, our insurance operations cede a portion of their premium on a quota share or excess of loss basis through treaty or facultative reinsurance agreements. Our reinsurance operations also obtain reinsurance whereby another reinsurer contractually agrees to

Table of Contents

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."

Our insurance operations had in effect during 2011 a reinsurance program which provided coverage equal to a maximum of 84% of the first \$250 million in excess of a \$100 million retention per occurrence for certain property catastrophe-related losses occurring during 2011, compared to a maximum of 77% of the first \$275 million in excess of a \$75 million retention per occurrence during 2010 and a maximum of 80% of the first \$275 million in excess of a \$75 million retention per occurrence during 2009. In the 2012 first quarter, our insurance operations renewed its reinsurance program which provides coverage for certain property-catastrophe related losses occurring during 2012 equal to 27% of the first layer of \$50 million in excess of a \$100 million retention per occurrence and 100% of the next three layers which total \$200 million in excess of \$150 million.

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 22% of gross premiums written for 2011, compared to 23% for 2010 and 2009. 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 "Risk Factors Risks Relating to Our Company We are exposed to credit risk in certain of our business operations" and "Financial Condition, Liquidity and Capital Resources Financial Condition Premiums Receivable and Reinsurance Recoverables" for further details.

**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 our insurance operations' programs, specialty lines, collateral protection business and for participation in involuntary pools. The amount of such insurance premium estimates, included in premiums receivable and other assets, was \$71.4 million at December 31, 2011, compared to \$60.8 million at 2010. Such premium estimates are derived from multiple sources which include the historical experience of the underlying business, similar business and available industry information.

Table of Contents

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. The determination of premium estimates requires a review of our experience with the ceding companies, familiarity with each market, the timing of the reported information, an analysis and understanding of the characteristics of each line of business, and management's judgment of the impact of various factors, including premium or loss trends, on the volume of business written and ceded to us. On an ongoing basis, our underwriters review the amounts reported by these third parties for reasonableness based on their experience and knowledge of the subject class of business, taking into account our historical experience with the brokers or ceding companies. In addition, reinsurance contracts under which we assume business generally contain specific provisions which allow us to perform audits of the ceding company to ensure compliance with the terms and conditions of the contract, including accurate and timely reporting of information. Based on a review of all available information, management establishes premium estimates where reports have not been received. Premium estimates are updated when new information is received and differences between such estimates and actual amounts are recorded in the period in which estimates are changed or the actual amounts are determined. 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, premiums are recorded as written based on the terms of the contract. Estimates of premiums written under pro rata contracts are recorded in the period in which the underlying risks 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, 2011 and 2010:

	December 31, 2011			December 31, 2010		
	Gross Amount	Acquisition Expenses	Net Amount	Gross Amount	Acquisition Expenses	Net Amount
Casualty.	\$ 44,344	\$ (6,522)	\$ 37,822	\$ 59,796	\$ (11,934)	\$ 47,862
Property excluding property catastrophe	23,826	(6,217)	17,609	47,552	(12,474)	35,078
Other specialty	35,860	(11,293)	24,567	40,761	(12,006)	28,755
Marine and aviation	26,785	(6,049)	20,736	27,354	(7,346)	20,008
Property catastrophe	914	(46)	868	1,527	(82)	1,445
Other	456	(25)	431	279	(15)	264
<b>Total</b>	<b>\$ 132,185</b>	<b>\$ (30,152)</b>	<b>\$ 102,033</b>	<b>\$ 177,269</b>	<b>\$ (43,857)</b>	<b>\$ 133,412</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

Table of Contents

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, 2011.

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 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 reinsurers, consist primarily of commissions and premium 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. 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 us during 2011, 2010 or 2009.

Table of Contents

**Fair Value Measurements**

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

We determine the existence of an active market based on our judgment as to whether transactions for the financial instrument occur in such market with sufficient frequency and volume to provide reliable pricing information. The independent pricing sources obtain market quotations and actual transaction prices for securities that have quoted prices in active markets. We use quoted values and other data provided by nationally recognized independent pricing sources as inputs into our process for determining fair values of our 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 their 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 fair 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 our knowledge of the current market; (v) a comparison of the pricing services' fair values to other pricing services' fair values for the same investments; and (vi) back-testing, which includes randomly selecting purchased or sold securities and comparing the executed prices to the fair value estimates from the pricing service. At December 31, 2011, we obtained an average of 2.8 quotes or prices per investment, compared to 2.7 quotes or prices at December 31, 2010. Where multiple quotes or prices were obtained, a price source hierarchy was maintained in order to determine which price source would be used (*i.e.*, a price obtained from a pricing service with more seniority in the hierarchy will be used from a less senior one in all cases). The hierarchy prioritizes pricing services based on availability and reliability and assigns the highest priority to index providers. Based on the above review, 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 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 values are unavailable from these independent pricing sources, quotes are obtained directly from broker-dealers who are active in the corresponding markets. Such quotes are subject to the validation procedures noted above. Of the \$11.97 billion of financial assets and liabilities measured at fair value at December 31, 2011, approximately \$1.19 billion, or 9.9%, were priced using non-binding broker-dealer quotes.

Table of Contents

In April 2009, the FASB issued guidance regarding the determination of fair value when the volume and level of activity for the asset or liability have significantly decreased and the identification of transactions that are not orderly. This affirms that the objective of fair value when the market for an asset is not active is the price that would be received to sell the asset in an orderly transaction, and clarifies and includes additional factors for determining whether there has been a significant decrease in market activity for an asset when the market for that asset is not active. Under this guidance, if an entity determines that there has been a significant decrease in the volume and level of activity for the asset or the liability in relation to the normal market activity for the asset or liability (or similar assets or liabilities), then transactions or quoted prices may not accurately reflect fair value. In addition, if there is evidence that the transaction for the asset or liability is not orderly, the entity shall place little, if any weight on that transaction price as an indicator of fair value. This guidance also expanded certain disclosure requirements. The adoption of this guidance did not have a material impact on our consolidated financial condition or results of operations.

We review our securities measured at fair value and discuss the proper classification of such investments with investment advisors and others. See note 8, "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, 2011 by valuation hierarchy.

**Other-Than-Temporary Impairments**

On a quarterly basis, we perform reviews of our investments to determine whether declines in fair value below the cost basis are considered other-than-temporary in accordance with applicable accounting guidance regarding the recognition and presentation of OTTI. The process of determining whether a security is other-than-temporarily impaired requires judgment and involves analyzing many factors. These factors include (i) an analysis of the liquidity, business prospects and overall financial condition of the issuer, (ii) the time period in which there was a significant decline in value, (iii) the significance of the decline, and (iv) the analysis of specific credit events. We evaluate the unrealized losses of our equity securities by issuer and determine if we can forecast a reasonable period of time by which the fair value of the securities would increase and we would recover our cost. If we are unable to forecast a reasonable period of time in which to recover the cost of our equity securities, we record a net impairment loss in earnings equivalent to the entire unrealized loss.

In 2009, we adopted additional guidance that requires entities to separate an other-than-temporary impairment of a debt security into two components when there are credit related losses associated with the impaired debt security for which an entity asserts that it does not have the intent to sell the security, and it is more likely than not that it will not be required to sell the security before recovery of its cost basis. The effect of adoption was an increase to the amortized cost basis of debt securities that were impaired prior to 2009, net of deferred tax, of \$62.0 million. The cumulative effect adjustment had no effect on total shareholders' equity as it increased retained earnings and reduced accumulated other comprehensive income.

In accordance with the additional guidance, the amount of the OTTI related to a credit loss is recognized in earnings, and the amount of the OTTI related to other factors (*e.g.*, interest rates, market conditions, etc.) is recorded as a component of other comprehensive income (loss). The amount of the credit loss of an impaired debt security is the difference between the amortized cost and the greater of (i) the present value of expected future cash flows and (ii) the fair value of the security. In instances where no credit loss exists but it is more likely than not that we will have to sell the debt security prior to the anticipated recovery, the decline in fair value below amortized cost is recognized as an OTTI in earnings. In periods after the recognition of an OTTI on debt securities, we account for such securities as if they had been purchased on the measurement date of the OTTI at an amortized cost basis equal to the previous amortized cost basis less the OTTI recognized in earnings. For debt securities for which

Table of Contents

OTTI were recognized in earnings, the difference between the new amortized cost basis and the cash flows expected to be collected will be accreted or amortized into net investment income.

During 2011, we recorded \$9.1 million of net impairment losses recognized in earnings, compared to \$11.3 million in 2010. See note 7, "Investment Information Other-Than-Temporary Impairments," of the notes accompanying our consolidated financial statements for additional information.

**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(o), "Significant Accounting Policies Recent Accounting Pronouncements," of the notes accompanying our consolidated financial statements.

**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 and equity portfolios.



Table of Contents

The following table summarizes our investable assets:

	December 31,	
	2011	2010
Fixed maturities available for sale, at fair value	\$ 9,375,604	\$ 8,957,859
Fixed maturities, at fair value(1)	147,779	124,969
Fixed maturities pledged under securities lending agreements, at fair value(2)	56,393	75,575
<b>Total fixed maturities</b>	<b>9,579,776</b>	<b>9,158,403</b>
Short-term investments available for sale, at fair value	904,219	915,841
Cash	351,699	362,740
Equity securities available for sale, at fair value	299,584	310,194
Equity securities, at fair value(1)	87,403	94,204
Other investments available for sale, at fair value	238,111	275,538
Other investments, at fair value(1)	131,721	
TALF investments, at fair value(3)	387,702	402,449
Investments accounted for using the equity method(4)	380,507	508,334
<b>Total cash and investments</b>	<b>12,360,722</b>	<b>12,027,703</b>
Securities sold but not yet purchased(5)	(27,178)	(41,143)
Securities transactions entered into but not settled at the balance sheet date	(17,339)	(144,047)
<b>Total investable assets</b>	<b>\$ 12,316,205</b>	<b>\$ 11,842,513</b>

- 
- (1) Represents securities which are carried at fair value under the fair value option and reflected as "investments accounted for using the fair value option" on our balance sheet. Changes in the carrying value of such securities are recorded in net realized gains or losses.
- (2) This table excludes the collateral received and reinvested and includes the fixed maturities and short-term investments pledged under securities lending agreements, at fair value.
- (3) The Federal Reserve's Term Asset-Backed Securities Loan Facility ("TALF") provides secured financing for certain asset-backed securities and legacy commercial mortgage-backed securities. TALF financing is non-recourse to us, is collateralized by the purchased securities and provides financing for the purchase price of the securities, less a 'haircut' that varies based on the type of collateral. We can deliver the collateralized securities to the Federal Reserve in full defeasance of the loan.
- (4) Changes in the carrying value of investment funds accounted for using the equity method are recorded as "equity in net income (loss) of investments funds accounted for using the equity method" rather than as an unrealized gain or loss component of accumulated other comprehensive income.
- (5) Represents our obligation to deliver equity securities that we did not own at the time of sale. Such amounts are included in "other liabilities" on our balance sheet.

At December 31, 2011, our fixed income portfolio, which includes fixed maturity securities and short-term investments, had average credit quality ratings from S&P/Moody's of "AA/Aa1" and an average yield to maturity (imbedded book yield), before investment expenses, of 2.98%. At December 31, 2010, our fixed income portfolio had average credit quality ratings from S&P/Moody's of "AA+/Aa1" and an average yield to maturity (imbedded book yield), before investment expenses, of 3.52%. Our investment portfolio had an average effective duration of 2.99 years at December 31, 2011,

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

Table of Contents

compared to 2.83 years at December 31, 2010. At December 31, 2011, approximately \$7.9 billion, or 66%, of our total investments and cash was internally managed, compared to \$7.48 billion, or 65%, at December 31, 2010.

The following table summarizes our fixed maturities by type:

	Estimated Fair Value	Gross Unrealized Gains	Gross Unrealized Losses	Cost or Amortized Cost	OTTI Unrealized Losses(2)
<b>At December 31, 2011</b>					
Fixed maturities and fixed maturities pledged under securities lending agreements(1):					
Corporate bonds	\$ 2,719,052	\$ 79,407	\$ (29,922)	\$ 2,669,567	\$ (1,138)
Mortgage backed securities	1,592,762	27,633	(23,226)	1,588,355	(20,466)
Municipal bonds	1,430,565	77,977	(886)	1,353,474	(105)
Commercial mortgage backed securities	1,046,326	28,780	(2,904)	1,020,450	(3,259)
U.S. government and government agencies	1,451,993	34,811	(3)	1,417,185	(207)
Non-U.S. government securities	762,321	33,486	(17,684)	746,519	
Asset backed securities	576,757	14,649	(10,078)	572,186	(3,876)
Total	\$ 9,579,776	\$ 296,743	\$ (84,703)	\$ 9,367,736	\$ (29,051)
<b>At December 31, 2010</b>					
Fixed maturities and fixed maturities pledged under securities lending agreements(1):					
Corporate bonds	\$ 2,839,344	\$ 97,400	\$ (18,343)	\$ 2,760,287	\$ (18,047)
Mortgage backed securities	1,806,813	18,801	(26,893)	1,814,905	(21,147)
Municipal bonds	1,182,100	40,410	(6,958)	1,148,648	(125)
Commercial mortgage backed securities	1,167,299	31,743	(6,028)	1,141,584	(3,481)
U.S. government and government agencies	872,149	20,150	(5,696)	857,695	(207)
Non-U.S. government securities	732,666	39,539	(11,894)	705,021	(72)
Asset backed securities	558,032	20,672	(3,990)	541,350	(3,954)
Total	\$ 9,158,403	\$ 268,715	\$ (79,802)	\$ 8,969,490	\$ (47,033)

(1) In our securities lending transactions, we receive collateral in excess of the fair value of the fixed maturities and short-term investments pledged. For purposes of this table, we have excluded the investment of collateral received and reinvested and included the fixed maturities and short-term investments pledged.

(2) Represents the total other-than-temporary impairments ("OTTI") recognized in accumulated other comprehensive income ("AOCI"). It does not include the change in fair value subsequent to the impairment measurement date. At December 31, 2011, the net unrealized loss related to securities for which a non-credit OTTI was recognized in AOCI was \$18.0 million, compared to a net unrealized loss of \$7.1 million at December 31, 2010.

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

Table of Contents

The following table provides the credit quality distribution of our fixed maturities and fixed maturities pledged under securities lending agreements (excluding TALF investments):

Rating(1)	December 31, 2011		December 31, 2010	
	Estimated Fair Value	Total	Estimated Fair Value	Total
U.S. government and government agencies(2)	\$ 3,154,480	32.9	\$ 2,712,187	29.6
AAA	3,229,161	33.7	3,819,570	41.7
AA	1,425,249	14.9	1,053,666	11.5
A	884,957	9.2	605,483	6.6
BBB	412,566	4.3	388,564	4.2
BB	140,029	1.5	133,673	1.5
B	165,003	1.7	242,479	2.6
Lower than B	114,672	1.2	109,596	1.2
Not rated	53,659	0.6	93,185	1.1
Total	\$ 9,579,776	100.0	9,158,403	100.0

(1) For individual fixed maturities, S&P ratings are used. In the absence of an S&P rating, ratings from Moody's are used, followed by ratings from Fitch Ratings.

(2) Includes U.S. government-sponsored agency mortgage backed securities and agency commercial mortgage backed securities.

The following table provides information on the severity of the unrealized loss position as a percentage of amortized cost for all fixed maturities and fixed maturities pledged under securities lending agreements which were in an unrealized loss position:

Severity of Unrealized Loss	December 31, 2011			December 31, 2010		
	Estimated Fair Value	Gross Unrealized Losses	% of Total Gross Unrealized Losses	Estimated Fair Value	Gross Unrealized Losses	% of Total Gross Unrealized Losses
0 - 10%	\$ 1,692,722	\$ (44,803)	52.9	\$ 2,650,335	\$ (58,941)	73.8
10 - 20%	144,523	(20,222)	23.9	79,419	(11,896)	14.9
20 - 30%	38,749	(11,709)	13.8	18,799	(5,721)	7.2
30 - 40%	14,596	(7,413)	8.8	1,372	(689)	0.9
40 - 50%	619	(445)	0.5	733	(660)	0.8
70 - 80%	29	(111)	0.1	466	(1,895)	2.4
Total	\$ 1,891,238	\$ (84,703)	100.0	\$ 2,751,124	\$ (79,802)	100.0

Table of Contents

The following table provides information on the severity of the unrealized loss position as a percentage of amortized cost for non-investment grade fixed maturities and fixed maturities pledged under securities lending agreements which were in an unrealized loss position:

Severity of Unrealized Loss	December 31, 2011			December 31, 2010		
	Estimated Fair Value	Gross Unrealized Losses	% of Total Gross Unrealized Losses	Estimated Fair Value	Gross Unrealized Losses	% of Total Gross Unrealized Losses
0 - 10%	\$ 143,782	\$ (6,418)	7.6	\$ 74,340	\$ (2,845)	3.6
10 - 20%	33,926	(5,484)	6.5	36,900	(5,475)	6.9
20 - 30%	26,733	(8,042)	9.5	7,918	(2,619)	3.3
30 - 40%	13,558	(6,905)	8.2	1,054	(537)	0.7
40 - 50%	619	(445)	0.5	733	(659)	0.8
50 - 100%	29	(110)	0.1	466	(1,895)	2.4
<b>Total</b>	<b>\$ 218,647</b>	<b>\$ (27,404)</b>	<b>32.4</b>	<b>\$ 121,411</b>	<b>\$ (14,030)</b>	<b>17.7</b>

At December 31, 2011, below-investment grade securities comprised approximately 5% of our fixed maturities and fixed maturities pledged under securities lending agreements, compared to approximately 6% at December 31, 2010. In accordance with our investment strategy, we invest in high yield fixed income securities which are included in "Corporate bonds." Upon issuance, these securities are typically rated below investment grade (*i.e.*, rating assigned by the major rating agencies of "BB" or less). In the table above, corporate bonds represented 46% of the total below investment grade securities at fair value, mortgage backed securities represented 46% of the total and 8% were in other classes at December 31, 2011. At December 31, 2010, corporate bonds represented 26% of the total below investment grade securities at fair value, mortgage backed securities represented 69% of the total and 5% were in other classes. Unrealized losses include the impact of foreign exchange movements on certain securities denominated in foreign currencies and, as such, the amount of securities in an unrealized loss position fluctuates due to foreign currency movements.

We determine estimated recovery values for our fixed maturities and fixed maturities pledged under securities lending agreements following a review of the business prospects, credit ratings, estimated loss given default factors and information received from asset managers and rating agencies for each security. For structured securities, we utilize underlying data, where available, for each security provided by asset managers and additional information from credit agencies in order to determine an expected recovery value for each security. The analysis provided by the asset managers includes expected cash flow projections under base case and stress case scenarios which modify expected default expectations and loss severities and slow down prepayment assumptions. In the tables above, securities at December 31, 2011 which were in an unrealized loss position of greater than 40% of amortized cost were primarily in asset backed and mortgage backed securities where the estimated fair value for the securities was lower than our expected recovery value.

Table of Contents

The following table summarizes our top ten exposures to fixed income corporate issuers by fair value at December 31, 2011, excluding guaranteed amounts:

	Estimated Fair Value	Credit Rating(1)
General Electric Co.	\$ 40,019	AA+/Aa2
Abbey National Treasury Svcs	29,669	AA-/A1
Total SA	29,514	AA-/Aa1
National Australia Bank Limited	29,324	AA-/Aa2
Royal Dutch Shell PLC	28,636	AA/Aa1
Verizon Communications Inc	26,017	A-/A3
JPMorgan Chase & Co.	25,848	A/Aa3
Berkshire Hathaway Inc	25,759	A/A2
Australia & New Zealand Banking Group Ltd	24,703	AA-/Aa3
Svenska Handelsbanken AB	21,130	AA-/Aa2
<b>Total</b>	<b>\$ 280,619</b>	

(1) Ratings as assigned by S&P/Moody's.

Our portfolio includes investments, such as mortgage-backed securities, which are subject to prepayment risk. At December 31, 2011, our investments in mortgage-backed securities ("MBS"), excluding commercial mortgage-backed securities, amounted to approximately \$1.59 billion, or 12.9% of total investable assets, compared to \$1.81 billion, or 15.3%, at December 31, 2010. As with other fixed income investments, the fair 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.

Since 2007, the residential mortgage market in the U.S. has experienced a variety of difficulties. During this time, delinquencies and losses with respect to residential mortgage loans generally have increased and may continue to increase, particularly in the subprime sector. In addition, during this period, 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. Our portfolio includes commercial mortgage backed securities ("CMBS"). At December 31, 2011, CMBS constituted approximately \$1.05 billion, or 8.5% of total investable assets, compared to \$1.17 billion, or 9.9%, at December 31, 2010. The commercial real estate market has experienced price deterioration, which could lead to increased delinquencies and defaults on commercial real estate mortgages.

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

### Table of Contents

The following table provides information on our mortgage backed securities ("MBS") and CMBS at December 31, 2011, excluding amounts guaranteed by the U.S. government and TALF investments:

	Issuance Year	Amortized Cost	Average Credit Quality	Total	Fair Value % of Amortized Cost	% of Investable Assets
<b>Non-agency MBS:</b>	2003	\$ 2,475	AAA	\$ 2,401	97.0%	0.0%
	2004	15,219	BBB	13,565	89.1%	0.1%
	2005	49,966	B-	42,922	85.9%	0.3%
	2006	30,522	CCC+	24,349	79.8%	0.2%
	2007	42,344	CCC	37,439	88.4%	0.3%
	2008	7,372	CCC	6,765	91.8%	0.1%
	2009(6)	40,322	AAA	42,733	106.0%	0.3%
	2010(6)	32,554	AAA	31,407	96.5%	0.3%
<b>Total non-agency MBS</b>		\$ 220,774	BBB-	\$ 201,581	91.3%	1.6%
<b>Non-agency CMBS:</b>	1998	3,509	AAA	3,561	101.5%	0.0%
	2002	35,186	AAA	35,322	100.4%	0.3%
	2003	41,487	AAA	42,674	102.9%	0.3%
	2004	29,297	AAA	29,279	99.9%	0.2%
	2005	48,934	AAA	48,988	100.1%	0.4%
	2006	5,576	A	5,517	98.9%	0.0%
	2007	77,536	AA	82,577	106.5%	0.7%
	2008	190	AA+	185	97.4%	0.0%
	2010	244,556	AAA	249,464	102.0%	2.0%
	2011	230,611	AAA	237,453	103.0%	1.9%
<b>Total non-agency CMBS</b>		\$ 716,882	AAA	\$ 735,020	102.5%	6.0%

<b>Additional Statistics:</b>	<b>Non-Agency MBS</b>		<b>Non-Agency</b>
	<b>Re-REMICs</b>	<b>All Other</b>	<b>CMBS(1)</b>
Weighted average loan age (months)	67	71	46
Weighted average life (months)(2)	23	65	37
Weighted average loan-to-value %(3)	70.2%	68.2%	66.3%
Total delinquencies(4)	17.9%	23.6%	4.2%
Current credit support %(5)	41.2%	10.2%	28.5%

- (1) Loans defeased with government/agency obligations represented approximately 3% of the collateral underlying our CMBS holdings.
- (2) The weighted average life for MBS is based on the interest rates in effect at December 31, 2011. The weighted average life for CMBS reflects the average life of the collateral underlying our CMBS holdings.
- (3) The range of loan-to-values is 31% to 87% on MBS and 31% to 100% on CMBS.
- (4) Total delinquencies includes 60 days and over.
- (5)

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

Current credit support % represents the % for a collateralized mortgage obligation ("CMO") or CMBS class/tranche from other subordinate classes in the same CMO or CMBS deal.

- (6) Primarily represents Re-REMICs issued in 2009 and 2010 with an average credit quality of "AAA" from Fitch Ratings.

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

### Table of Contents

The following table provides information on our asset backed securities ("ABS"), excluding TALF investments, at December 31, 2011:

Sector:	Amortized Cost	Average Credit Quality	Total	Fair Value % of Amortized Cost	% of Investable Assets
Credit cards(1)	\$ 216,439	AAA	\$ 220,173	101.7%	1.8%
Autos(2)	162,059	AAA	161,148	99.4%	1.3%
U.K. securitized(3)	18,327	AAA	18,087	98.7%	0.1%
Student loans(4)	22,471	AA+	23,070	102.7%	0.2%
Rate reduction bonds(5)	67,263	AAA	70,036	104.1%	0.6%
Other	71,567	A+	70,881	99.0%	0.6%
	558,126	AA+	563,395	100.9%	4.6%
Home equity(6)	\$ 3,026	AAA	\$ 2,562	84.7%	0.0%
	31	A	30	96.8%	0.0%
	6,413	BBB to B	5,717	89.1%	0.0%
	4,412	CCC to C	4,970	112.6%	0.0%
	178	D	83	46.6%	0.0%
	14,060	BB-	13,362	95.0%	0.1%
<b>Total ABS</b>	<b>\$ 572,186</b>	<b>AA+</b>	<b>\$ 576,757</b>	<b>100.8%</b>	<b>4.7%</b>

The effective duration of the total ABS was 1.3 years at December 31, 2011.

- (1) The weighted average credit support % on credit cards is 20.0%.
- (2) The weighted average credit support % on autos is 28.3%.
- (3) The weighted average credit support % on U.K. securitized is 18.5%.
- (4) The weighted average credit support % on student loans is 7.9%.
- (5) The weighted average credit support % on rate reduction bonds is 9.0%.
- (6) The weighted average credit support % on home equity is 22.6%.

At December 31, 2011, our fixed income portfolio included \$40.1 million par value in sub-prime securities with an estimated fair value of \$15.4 million and an average credit quality of "BB+/Ba2" from S&P/ Moody's. At December 31, 2010, our fixed income portfolio included \$47.1 million par value in sub-prime securities with an estimated fair value of \$19.9 million and an average credit quality of "BBB/Baa3" from S&P/Moody's. Such amounts were primarily in the home equity sector of our asset backed securities, 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 addition, the portfolio of collateral backing our securities lending program contains approximately \$7.3 million estimated fair value of sub-prime securities with an average credit quality of "CCC/Caa2" from S&P/Moody's at December 31, 2011, compared to approximately \$13.2 million estimated fair value with an average credit quality of "B-/Caa2" from S&P/Moody's at December 31, 2010.



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

At December 31, 2011, we held insurance enhanced municipal bonds, net of prerefunded bonds that are escrowed in U.S. government obligations, the estimated fair value of which was \$263.4 million,

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

### Table of Contents

or approximately 2.1% of our total investable assets. These securities had an average rating of "AA/Aa2" by S&P/Moody's with and without the insurance enhancement. This is due to the fact that, in cases where the claims paying ratings of the guarantors are below investment grade, those ratings have been withdrawn from the bonds by the relevant rating agencies, and the insured ratings have been equated to the underlying ratings. The ratings were obtained from the individual rating agencies and were assigned a numerical amount with 1 being the highest rating. The average ratings were calculated using the weighted average fair values of the individual bonds. Guarantors of our insurance enhanced municipal bonds, net of prerefunded bonds that are escrowed in U.S. government obligations, included National Public Finance Guarantee (f.k.a. MBIA Insurance Corporation) (\$99.8 million), Assured Guaranty Ltd. (\$82.6 million), the Texas Permanent School Fund (\$51.4 million) and Financial Guaranty Insurance Company (\$29.6 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, 2011.

The following table provides information on the fair value of our Eurozone investments at December 31, 2011:

<b>Country(1)</b>	<b>Sovereign(2)</b>	<b>Financial Corporates</b>	<b>Other Corporates</b>	<b>Covered Bonds(3)</b>	<b>Bank Loans(4)</b>	<b>Equities and Other(5)</b>	<b>Total</b>
Germany	\$ 170,512	\$ 1,266	\$ 4,294	\$ 7,064	\$ 18,334	\$ 252	\$ 201,722
Netherlands	10,177	32,966	45,440	30,180	5,742	19,940	144,445
France	3,040	3,415	29,683	69,610	4,870	8,836	119,454
Finland	83,772	232					84,004
Supranational(6)	83,193						83,193
Spain	3,220	3,239	193	12,847	6,596	206	26,301
Luxembourg			19,573		2,104	(26)	21,651
Italy	6,725		7,121	3,726	2,293	(143)	19,722
Belgium	1,936						1,936
Ireland		1,129	781				1,910
Portugal			614				614
<b>Total</b>	<b>\$ 362,575</b>	<b>\$ 42,247</b>	<b>\$ 107,699</b>	<b>\$ 123,427</b>	<b>\$ 39,939</b>	<b>\$ 29,065</b>	<b>\$ 704,952</b>

- 
- (1) The country allocations set forth in the table are based on various assumptions made by us in assessing the country in which the underlying credit risk resides, including a review of the jurisdiction of organization, business operations and other factors. Based on such analysis, we do not believe that we have any Eurozone fixed maturities from Austria, Cyprus, Estonia, Greece, Malta, Slovakia or Slovenia at December 31, 2011.
- (2) Sovereign includes securities issued and/or guaranteed by Eurozone governments.
- (3) Securities issued by Eurozone banks where the security is backed by a separate group of loans.
- (4) Included in corporate bonds.
- (5) Includes long or (short) net equity positions and other.
- (6) Includes World Bank, European Investment Bank, International Finance Corp. and European Bank for Reconstruction and Development.

At December 31, 2011, our equity portfolio consisted of \$359.8 million of equity securities, compared to \$363.3 million at December 31, 2010. Such amounts are shown net of securities sold but not purchased. Our equity portfolio primarily consists of publicly traded common stocks in the natural resources, energy and consumer staples sectors. Certain of our equity managers use leverage to achieve



Table of Contents

a higher rate of return on their assets under management. 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 holdings would be magnified to the extent leverage is used and our potential losses would be magnified.

The following table provides information on the severity of the unrealized loss position as a percentage of cost for all equity securities classified as available for sale which were in an unrealized loss position:

Severity of Unrealized Loss	December 31, 2011			December 31, 2010		
	Estimated Fair Value	Gross Unrealized Losses	% of Total Gross Unrealized Losses	Estimated Fair Value	Gross Unrealized Losses	% of Total Gross Unrealized Losses
0 - 10%	\$ 74,813	\$ (3,651)	16.3	\$ 65,892	\$ (1,993)	58.2
10 - 20%	26,791	(4,457)	19.9	2,393	(824)	24.1
20 - 30%	21,457	(7,827)	35.0	39	(145)	4.2
30 - 40%	5,070	(2,645)	11.9			
40 - 50%	2,345	(1,984)	8.9			
50 - 70%	1,492	(1,780)	8.0	400	(462)	13.5
<b>Total</b>	<b>\$ 131,968</b>	<b>\$ (22,344)</b>	<b>100.0</b>	<b>\$ 68,724</b>	<b>\$ (3,424)</b>	<b>100.0</b>

During 2011, falling global equity markets, commodity prices and natural resource stocks contributed to an increase in unrealized losses across many of our equity positions. On a quarterly basis, we evaluate the unrealized losses of our equity securities by issuer and forecast a reasonable period of time by which the fair value of the securities would increase and we would recover its cost basis. A substantial portion of the equity securities with unrealized losses were less than 30% under their cost basis at December 31, 2011. We believe that a reasonable period of time exists to allow for recovery of the cost basis of our equity securities.

Other investments totaled \$369.8 million at December 31, 2011, compared to \$275.5 million at December 31, 2010. Investment funds accounted for using the equity method (excluding our investment in Aeolus LP) totaled \$345.3 million at December 31, 2011, compared to \$434.6 million at December 31, 2010. Certain of our investments, primarily those included in "other investments" and "investments accounted for using the equity method" on our balance sheet, may use leverage to achieve a higher 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 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 that would be allowed under our investment guidelines if implemented in other ways. See note 9, "Derivative Instruments," of the notes accompanying our consolidated financial statements for additional disclosures concerning derivatives.

Table of Contents

Accounting guidance regarding fair value measurements addresses how companies should measure fair value when they are required to use a fair value measure for recognition or disclosure purposes under GAAP and provides a common definition of fair value to be used throughout GAAP. See note 8, "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, 2011 and 2010 by level.

***Premiums Receivable and Reinsurance Recoverables***

At December 31, 2011, 72.6% of premiums receivable of \$501.6 million represented amounts not yet due, while amounts in excess of 90 days overdue were 4.8% of the total. At December 31, 2010, 77.9% of premiums receivable of \$503.4 million represented amounts not yet due, while amounts in excess of 90 days overdue were 4.4% of the total. Approximately 2.3% of the \$33.5 million of paid losses and loss adjustment expenses recoverable were in excess of 90 days overdue at December 31, 2011, compared to 0.6% of the \$60.8 million of paid losses and loss adjustment expenses recoverable at December 31, 2010. At December 31, 2011 and 2010, our reserves for doubtful accounts were approximately \$14.2 million and \$13.6 million, respectively.

At December 31, 2011, approximately 90.1% of reinsurance recoverables on paid and unpaid losses (not including prepaid reinsurance premiums) of \$1.85 billion were due from carriers which had an A.M. Best rating of "A-" or better and the largest reinsurance recoverables from any one carrier was approximately 5.4% of our total shareholders' equity. At December 31, 2010, approximately 91.1% of reinsurance recoverables on paid and unpaid losses (not including prepaid reinsurance premiums) of \$1.76 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 approximately 5.5% of our total shareholders' equity.

The following table details our reinsurance recoverables at December 31, 2011:

	% of Total	A.M. Best Rating(1)
Everest Reinsurance Company	13.6%	A+
Lloyd's syndicates(2)	8.3%	A
Munich Reinsurance America, Inc.	7.0%	A+
Odyssey America Reinsurance Corporation(3)	6.1%	A
Allied World Assurance Company Ltd.	5.6%	A
Transatlantic Reinsurance Company	4.9%	A+
Partner Reinsurance Company of the U.S.	3.9%	A+
Hannover Rückversicherung AG	3.6%	A
ACE Property & Casualty Insurance Company	3.0%	A+
Platinum Underwriters Reinsurance Inc.	2.7%	A
Swiss Reinsurance America Corporation	2.7%	A
Berkley Insurance Company	2.4%	A+
Alterra Reinsurance Ltd.	2.3%	A
Munich Reinsurance Company	2.1%	A+
AXIS Reinsurance Company	1.9%	A
XL Reinsurance America	1.9%	A
Flatiron Re Ltd.(4)	1.8%	NR
All other(5)	26.2%	
<b>Total</b>	<b>100.0%</b>	

(1)

The financial strength ratings are as of January 15, 2012 and were assigned by A.M. Best based on its opinion of the insurer's financial strength as of such date. An explanation of

Table of Contents

the ratings listed in the table follows: the rating of "A+" is 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.

- (2) The A.M. Best group rating of "A" (Excellent) has been applied to all Lloyd's syndicates.
- (3) A significant portion of amounts due from Odyssey America Reinsurance Corporation is collateralized through reinsurance trusts.
- (4) 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, 2011.
- (5) Such amount included 18.1% due from companies rated "A-" or better and 8.1% from companies not rated. For items not rated, a substantial portion of such amount is collateralized through reinsurance trusts or letters of credit.

***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. 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 \$4.63 billion at December 31, 2011, compared to \$4.51 billion at December 31, 2010. The increase in the year ended December 31, 2011 of \$115.5 million was attributable to net income, partially offset by share repurchase activity.

Table of Contents**Book Value per Common Share**

The following table presents the calculation of book value per common share at December 31, 2011 and 2010:

(U.S. dollars in thousands, except share data)	December 31,	
	2011	2010
Calculation of book value per common share:		
Total shareholders' equity	\$ 4,628,486	\$ 4,513,003
Less preferred shareholders' equity	(325,000)	(325,000)
Common shareholders' equity	\$ 4,303,486	\$ 4,188,003
Common shares outstanding(1)	134,358,345	139,632,225
Book value per common share	\$ 32.03	\$ 29.99

- (1) Excludes the effects of 8,706,441 and 12,251,568 stock options and 298,425 and 519,534 restricted stock units outstanding at December 31, 2011 and 2010, 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 \$8.0 million at December 31, 2011, compared to \$14.4 million at December 31, 2010. During 2011, ACGL received dividends of \$341.5 million from Arch Re Bermuda which were primarily used to fund the share repurchase program described below.

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 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 (3) 15% of net discounted aggregated losses and loss expense provisions 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% 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 ("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. Arch Re Bermuda is required to meet enhanced capital requirements and a target capital level (defined as 120% of the enhanced capital requirements) as calculated using a new risk based capital model called the Bermuda Solvency Capital Requirement ("BSCR") model. At December 31, 2011, as determined under Bermuda law, Arch Re Bermuda had statutory capital of \$2.28 billion (\$2.26 billion at December 31, 2010) and statutory capital and surplus of \$4.56 billion (\$4.44 billion at December 31, 2010), which amounts were

Table of Contents

in compliance with Arch Re Bermuda's capital requirement at such date. Such amounts include ownership interests in U.S. insurance and reinsurance subsidiaries. Accordingly, Arch Re Bermuda can pay approximately \$1.14 billion to ACGL during 2012 without providing an affidavit to the BMA, 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 maintain assets in trust accounts as collateral for insurance and reinsurance transactions with affiliated companies and also have investments in segregated portfolios primarily to provide collateral or guarantees for letters of credit to third parties. At December 31, 2011 and 2010, such amounts approximated \$5.60 billion and \$5.87 billion, respectively.

Our non-U.S. operations account for a significant percentage of our net premiums written. In the current market environment, the business written in our non-U.S. operations has been more profitable than the business written in our U.S. operations, which has significantly increased the non-U.S. group's contribution to our overall pre-tax income. Additionally, a significant component of our pre-tax income is generated through our investment performance, especially in this competitive insurance and reinsurance market. We hold a substantial amount of our investable assets in our non-U.S. operations and, accordingly, a large portion of our investment income is produced in our non-U.S. operations. In addition, ACGL, through its subsidiaries, provides financial support to certain of its insurance subsidiaries and affiliates, through certain reinsurance arrangements beneficial to the ratings of such subsidiaries. Our U.S.-based insurance and reinsurance groups enter into separate reinsurance arrangements with Arch Re Bermuda covering individual lines of business. For the 2011 calendar year, the U.S. groups ceded business to Arch Re Bermuda at an aggregate net cession rate (*i.e.*, net of third party reinsurance) of approximately 51%.

Except as described in the above paragraph, 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.



Table of Contents

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 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.

Our investments in certain securities, including certain fixed income and structured securities, investments in funds accounted for using the equity method, other investments and our investment in Gulf Re (joint venture) may be illiquid due to contractual provisions or investment market conditions. If we require significant amounts of cash on short notice in excess of anticipated cash requirements, then we may have difficulty selling these investments in a timely manner or may be forced to sell or terminate them at unfavorable values.

Consolidated net cash provided by operating activities was \$866.1 million for the year ended December 31, 2011, compared to \$802.1 million for the year ended December 31, 2010. The increase in operating cash flows over the 2010 period was primarily due to higher premium collected, the timing of dividend receipts on other investments and the timing of certain expense payments. 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 investable assets totaled \$12.32 billion at December 31, 2011, compared to \$11.84 billion at December 31, 2010. 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, including debt service obligations. 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 fair 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 and to service our outstanding debt without having to sell securities at distressed prices or access credit facilities. Our unfunded investment commitments totaled approximately \$274.7 million at December 31, 2011.

In August 2011, S&P downgraded the U.S. credit rating from "AAA" to "AA+" with a negative outlook and warned it could lower the credit rating to "AA" within the next two years if it sees less reduction in spending than agreed to, higher interest rates, or new fiscal pressures during the period result in a higher general government debt trajectory. In addition, both Moody's and Fitch have announced the possibility of a downgrade to the U.S. credit rating. The impact of the continuing weakness of the U.S., European countries and other key economies, projected budget deficits for the

Table of Contents

U.S., European countries and other governments and the consequences associated with possible additional downgrades of securities of the U.S., European countries and other governments by credit rating agencies is inherently unpredictable and could have a material adverse effect on financial markets and economic conditions in the U.S. and throughout the world. In turn, this could have a material adverse effect on our business, financial condition and results of operations and, in particular, this could have a material adverse effect on the value and liquidity of securities in our investment portfolio. Our investment portfolio as of December 31, 2011 included \$1.45 billion of obligations of the U.S. government and government agencies at fair value and \$1.43 billion of municipal bonds at fair value. Please refer to Item 1A "Risk Factors" for a discussion of other risks relating to our business and investment portfolio.

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

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 in ACGL's common shares through a share repurchase program. Authorizations have consisted of a \$1.0 billion authorization in February 2007, a \$500.0 million authorization in May 2008, a \$1.0 billion authorization in November 2009 and a \$1.0 billion authorization in February 2011. Since the inception of the share repurchase program through December 31, 2011, ACGL has repurchased approximately 104.8 million common shares for an aggregate purchase price of \$2.56 billion. At December 31, 2011, approximately \$942.0 million of share repurchases were available under the program. Repurchases under the program may be effected from time to time in open market or privately negotiated transactions through December 2012. 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. We will continue to monitor our share price and, depending upon results of operations, market conditions and the development of the economy, as well as other factors, we will consider share repurchases on an opportunistic basis.

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,

Table of Contents

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 August 2011, we entered into a three-year agreement for a \$300.0 million unsecured revolving loan and letter of credit facility and a \$500.0 million secured letter of credit facility. Under the terms of the agreement, Arch Re U.S. and Arch Re Bermuda are limited to issuing an aggregate of \$100.0 million of unsecured letters of credit as part of the unsecured revolving loan. In addition, we have access to letter of credit facilities for up to a total of \$80.0 million, which are available on a limited basis and for limited purposes. Refer to note 14, "Commitments and Contingencies Letter of Credit and Revolving Credit Facilities," of the notes accompanying our consolidated financial statements for a discussion of our available facilities, applicable covenants on such facilities and available capacity.

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 preferred shares were issued and, on May 24, 2006, \$125.0 million principal amount of 7.875% series B preferred shares (together with the series A preferred shares, the "preferred shares") were issued. ACGL has the right to redeem all or a portion of the preferred shares at a redemption price of \$25.00 per share. 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. At December 31, 2011, had declared an aggregate of \$3.3 million of dividends to be paid to holders of the preferred shares.

Table of Contents

In March 2009, ACGL and Arch Capital Group (U.S.) Inc. 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 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.

We purchased asset-backed and commercial mortgage-backed securities under the FRBNY's TALF program. As of December 31, 2011, we had \$387.7 million of securities under TALF which are reflected as "TALF investments, at fair value" and \$310.5 million of secured financing from the FRBNY which is reflected as "TALF borrowings, at fair value." As of December 31, 2010, we had \$402.4 million of TALF investments, at fair value and \$325.8 million of TALF borrowings, at fair value. Refer to note 14, "Commitments and Contingencies TALF Program," and note 22, "Subsequent Events," of the notes accompanying our consolidated financial statements for further details on the TALF Program.

At December 31, 2011, ACGL's capital of \$5.03 billion consisted of \$300.0 million of senior notes, representing 6.0% of the total, \$100.0 million of revolving credit agreement borrowings due in August 2014, representing 2.0% of the total, \$325.0 million of preferred shares, representing 6.5% of the total, and common shareholders' equity of \$4.30 billion, representing the balance. At December 31, 2010, ACGL's capital of \$4.91 billion consisted of \$300.0 million of senior notes, representing 6.1% of the total, \$100.0 million of revolving credit agreement borrowings, representing 2.0% of the total, \$325.0 million of preferred shares, representing 6.6% of the total, and common shareholders' equity of \$4.19 billion, representing the balance. The increase in capital during 2011 was primarily attributable to net income, partially offset by share repurchase activity.

#### **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 hurricanes, floods, windstorms, earthquakes, hailstorms, tornados, explosions, severe winter weather, fires, droughts 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 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

Table of Contents

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. Our models employ both proprietary and vendor-based systems and include cross-line correlations for property, marine, offshore energy, aviation, workers compensation and personal accident. We seek to limit the probable maximum pre-tax loss to a specific level for severe catastrophic events. Currently, we seek to limit our 1-in-250 year return period net probable maximum loss from a severe catastrophic event in any geographic zone to approximately 25% of total shareholders' equity. We reserve the right to change this threshold at any time. Net probable maximum loss estimates are net of expected reinsurance recoveries, before income tax and before excess reinsurance reinstatement premiums. Loss estimates are reflective of the zone indicated and not the entire portfolio. Since hurricanes and windstorms can affect more than one zone and make multiple landfalls, our loss estimates include clash estimates from other zones. Our loss estimates do not represent our maximum exposures and it is highly likely that our actual incurred losses would vary materially from the modeled estimates. 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, 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. See "Risk Factors Risk Relating to Our Industry." 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.

Table of Contents

**CONTRACTUAL OBLIGATIONS AND COMMERCIAL COMMITMENTS**

**Letter of Credit and Revolving Credit Facilities**

As of December 31, 2011, we had a \$300.0 million unsecured revolving loan and letter of credit facility and a \$500.0 million secured letter of credit facility (the "Credit Agreement"). Under the terms of the agreement, Arch Re U.S. and Arch Re Bermuda are limited to issuing an aggregate of \$100.0 million of unsecured letters of credit as part of the \$300.0 million unsecured revolving loan. Borrowings of revolving loans may be made by ACGL 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. The Credit Agreement and related documents are structured such that each party that requests a letter of credit or borrowing does so only for itself and for only its own obligations. Issuance of letters of credit and borrowings under the Credit Agreement are subject to 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 consolidated tangible net worth in excess of \$3.09 billion plus 25% of future aggregate net income for each quarterly period (not including any future net losses) beginning after June 30, 2011 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, 2011. The Credit Agreement expires on August 18, 2014.

We have access to other letter of credit facilities for up to a total of \$80.0 million, which are available on a limited basis and for limited purposes (together with the secured portion of the Credit Agreement and these letter of credit facilities, the "LOC Facilities"). The principal purpose of the LOC Facilities is to issue, as required, evergreen standby letters of credit in favor of primary insurance or reinsurance counterparties with which 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, 2011. At such date, we had approximately \$515.7 million in outstanding letters of credit under the LOC Facilities, which were secured by investments with a fair value of \$607.7 million, and had \$100.0 million of borrowings outstanding under the Credit Agreement.

**Senior Notes**

In May 2004, ACGL completed a public offering of \$300.0 million principal amount of 7.35% senior notes ("Senior Notes") due May 1, 2034. 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 2011, 2010 and 2009, interest expense on the Senior Notes was \$22.1 million. The fair value of the Senior Notes at December 31, 2011 and 2010 was \$353.8 and \$310.9, respectively.

Table of Contents

**TALF Program**

During the 2009 third quarter, we purchased asset-backed and commercial mortgage-backed securities under the FRBNY TALF program. TALF provides secured financing for asset-backed securities backed by certain types of consumer and small business loans and for legacy commercial mortgage-backed securities. TALF financing is non-recourse to us, except in certain limited instances, and is collateralized by the purchased securities and provides financing for the purchase price of the securities, less a 'haircut' that varies based on the type of collateral. We can deliver the collateralized securities to a special purpose vehicle created by the FRBNY in full defeasance of the borrowings. As of December 31, 2011, we had \$387.7 million of securities under TALF, consisting of 19 individual TALF investments, which are reflected as "TALF investments, at fair value" and \$310.5 million of secured financing from the FRBNY which is reflected as "TALF borrowings, at fair value." The maturity dates for the TALF borrowings range from July 2012 to March 2015, with interest rates that range from approximately 1.2% to 3.9% based on either variable or fixed interest rates depending on the related TALF investments. See note 22, "Subsequent Events," of the notes accompanying our consolidated financial statements.

**Investment in Joint Venture**

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 Gulf Investment Corporation GSC ("GIC"). Under the agreement, Arch Re Bermuda and GIC each own 50% of Gulf Re, which commenced underwriting activities in June 2008. Gulf Re targets the six member states of the Gulf Cooperation Council ("GCC"), which include Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates. Gulf Re provides property and casualty reinsurance primarily in the member states of the GCC. The initial capital of the joint venture consisted of \$200.0 million with an additional \$200.0 million commitment to be funded equally by us and GIC depending on the joint venture's business needs we account for our investment in Gulf Re, shown as "Investment in joint venture," using the equity method and record our equity in the operating results of Gulf Re in "Other income (loss)" on a quarter lag basis.

Table of Contents**Contractual Obligations**

The following table provides an analysis of our contractual commitments at December 31, 2011:

	Total	Payment due by period			
		Less than 1 year	1 - 3 years	4 - 5 years	More than 5 years
Debt obligations	\$ 400,000	\$	\$ 100,000	\$	\$ 300,000
Interest expense on long-term debt obligations	500,285	23,610	46,700	44,100	385,875
TALF borrowings	310,486	101,603	145,358	63,525	
Operating lease obligations	121,610	16,189	28,846	24,130	52,445
Purchase obligations	16,991	9,078	4,464	2,314	1,135
Reserve for losses and loss adjustment expenses, gross(1)	8,456,210	2,396,024	2,761,978	1,326,741	1,971,467
Deposit accounting liabilities(2)	29,139	2,125	3,101	1,186	22,727
Contractholder payables(3)	748,231	279,175	260,006	89,946	119,104
Securities lending collateral(4)	58,546	58,546			
Investment in Joint Venture(5)	100,000				100,000
Unfunded investment commitments(6)	274,693	274,693			
<b>Total</b>	<b>\$ 11,016,191</b>	<b>\$ 3,161,043</b>	<b>\$ 3,350,453</b>	<b>\$ 1,551,942</b>	<b>\$ 2,952,753</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 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 66% of our reserves for losses and loss adjustment expenses were incurred but not reported at December 31, 2011.
- (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) Certain insurance policies written by our insurance operations feature large deductibles, primarily in construction and national accounts lines. Under such contracts, we are obligated to pay the claimant for the full amount of the claim and are subsequently reimbursed by the policyholder for the deductible amount. In the event we are unable to collect from the policyholder, we would record an increase to losses and loss adjustment expenses related to such policy.
- (4) 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 "Investment of funds received under securities lending agreements, at fair value" or "Securities purchased under agreements to resell using funds received under securities lending agreements." Such collateral is due back to the third parties at the close of the securities lending transaction.
- (5) 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.
- (6) Unfunded investment commitments are callable by our investment managers. We have assumed that such investments will be funded in the next year but the funding may occur over a longer period of time, due to market conditions and other factors.





Table of Contents

**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.

**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.

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, fair values or cash flows of our financial instruments as of December 31, 2011. Market risk represents the risk of changes in the fair value of a financial instrument and consists of several components, including liquidity, basis and price risks.

The sensitivity analysis performed as of December 31, 2011 presents hypothetical losses in cash flows, earnings and fair values of market sensitive instruments which were held by us on December 31, 2011 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, fair 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. 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 in the following tables.

Table of Contents

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, 2011 and 2010:

(U.S. dollars in millions)	Interest Rate Shift in Basis Points				
	-100	-50	-	50	100
<b>At December 31, 2011</b>					
Total fair value	\$ 11,320.9	\$ 11,215.5	\$ 11,067.5	\$ 10,905.6	\$ 10,743.4
Change from base	2.29%	1.34%		(1.46)%	(2.93)%
Change in unrealized value	\$ 253.4	\$ 148.0	\$	\$ (161.9)	\$ (324.1)
<b>At December 31, 2010</b>					
Total fair value	\$ 10,668.3	\$ 10,542.6	\$ 10,404.9	\$ 10,249.0	\$ 10,100.0
Change from base	2.53%	1.32%		(1.50)%	(2.93)%
Change in unrealized value	\$ 263.4	\$ 137.7	\$	\$ (155.9)	\$ (304.9)

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 fair value of our fixed income securities falls, and the converse is also true.

The 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, 2011 and 2010:

(U.S. dollars in millions)	Credit Spread Shift in Basis Points				
	-100	-50	-	50	100
<b>At December 31, 2011</b>					
Total fair value	\$ 11,297.6	\$ 11,189.3	\$ 11,067.5	\$ 10,952.5	\$ 10,836.4
Change from base	2.08%	1.10%		(1.04)%	(2.09)%
Change in unrealized value	\$ 230.1	\$ 121.8	\$	\$ (115.0)	\$ (231.1)
<b>At December 31, 2010</b>					
Total fair value	\$ 10,608.2	\$ 10,506.5	\$ 10,404.9	\$ 10,304.2	\$ 10,204.4
Change from base	1.95%	0.98%		(0.97)%	(1.93)%
Change in unrealized value	\$ 203.3	\$ 101.6	\$	\$ (100.7)	\$ (200.5)

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, 2011, our portfolio's VaR was estimated to be 3.23%, compared to an estimated 3.76% at December 31, 2010.

*Equity Securities, Privately Held Securities and Other Investments.* Our investment portfolio includes an allocation to equity securities, privately held securities and certain other investments. At December 31, 2011 and 2010, the fair value of our investments in equity securities, privately held securities (excluding our investment in Aeolus LP which is accounted for using the equity method) and certain other investments totaled \$508.5 million and \$587.1 million, respectively. These securities are exposed to price risk, which is the potential loss arising from decreases in fair value. An immediate

Table of Contents

hypothetical 10% depreciation in the value of each position would reduce the fair value of such investments by approximately \$50.8 million and \$58.7 million at December 31, 2011 and 2010, respectively, and would have decreased book value per common share by approximately \$0.38 and \$0.42, respectively.

*Investment-Related Derivatives.* Derivative instruments may be used to enhance investment performance, replicate investment positions or manage market exposures and duration risk that would be allowed under our investment guidelines if implemented in other ways. The fair values of those derivatives are based on quoted market prices. See note 9, "Derivative Instruments," of the notes accompanying our consolidated financial Statements for additional disclosures concerning derivatives. At December 31, 2011, the notional value of the net long position of derivative instruments (excluding to-be-announced mortgage backed securities which are included in the fixed income securities analysis above and foreign currency forward contracts which are included in the foreign currency exchange risk analysis below) was \$877.9 million, compared to \$1.04 billion at December 31, 2010. A 100 basis point depreciation of the underlying exposure to these derivative instruments at December 31, 2011 and 2010 would have resulted in a reduction in net income of approximately \$8.8 million and \$10.4 million, respectively, and would have decreased book value per common share by \$0.07 and \$0.07, respectively.

For further discussion on investment activity, please refer to " Financial Condition, Liquidity and Capital Resources Financial Condition Investable Assets."

**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. Through our subsidiaries and branches located in various foreign countries, we conduct our insurance and reinsurance operations in a variety of local currencies other than the U.S. Dollar. We generally hold investments in foreign currencies which are intended to mitigate our exposure to foreign currency fluctuations in our net insurance liabilities. We may also utilize foreign currency forward contracts and currency options as part of our investment strategy. See Note 9, "Derivative Instruments," of the notes accompanying our consolidated financial statements for additional information.

Table of Contents

The following table provides a summary of our net foreign currency exchange exposures, as well as foreign currency derivatives in place to manage these exposures, at December 31, 2011 and 2010:

(U.S. dollars in thousands, except per share data)	December 31,	
	2011	2010
Assets, net of insurance liabilities, denominated in foreign currencies, excluding shareholders' equity and derivatives	\$ 143,761	\$ 161,357
Shareholders' equity denominated in foreign currencies(1)	247,135	108,575
Net foreign currency forward contracts outstanding(2)	(16,569)	(105,022)
Net assets denominated in foreign currencies	\$ 374,327	\$ 164,910
Pre-tax impact of a hypothetical 10% appreciation of the U.S. Dollar against foreign currencies:		
Shareholders' equity	\$ (37,433)	\$ (16,491)
Book value per common share	\$ (0.28)	\$ (0.12)
Pre-tax impact of a hypothetical 10% decline of the U.S. Dollar against foreign currencies:		
Shareholders' equity	\$ 37,433	\$ 16,491
Book value per common share	\$ 0.28	\$ 0.12

(1) Represents capital contributions held in the foreign currencies of our operating units.

(2) Notional value of the outstanding foreign currency forward contracts in U.S. Dollars.

As a result of the current financial and economic environment as well as the potential for additional investment returns, we may not match a portion of our projected liabilities in foreign currencies with investments in the same currencies, which would increase our exposure to foreign currency fluctuations and increase the volatility in our results of operations. 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.

Table of Contents

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

	<b>Page No.</b>
<u>Index to Financial Statements</u>	
<u>Report of Independent Registered Public Accounting Firm</u>	<u>137</u>
<u>Consolidated Balance Sheets</u>	
<u>At December 31, 2011 and December 31, 2010</u>	<u>138</u>
<u>Consolidated Statements of Income</u>	
<u>For the years ended December 31, 2011 and 2010 and 2009</u>	<u>139</u>
<u>Consolidated Statements of Comprehensive Income</u>	
<u>For the years ended December 31, 2011 and 2010 and 2009</u>	<u>140</u>
<u>Consolidated Statements of Changes in Shareholders' Equity</u>	
<u>For the years ended December 31, 2011 and 2010 and 2009</u>	<u>141</u>
<u>Consolidated Statements of Cash Flows</u>	
<u>For the years ended December 31, 2011 and 2010 and 2009</u>	<u>142</u>
<u>Notes to Consolidated Financial Statements</u>	<u>143</u>

Table of Contents

**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, 2011 and December 31, 2010, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2011 in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedules appearing in Item 15(a)(2) 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, 2011, 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 audit. 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.

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  
February 29, 2012

Table of Contents**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES****CONSOLIDATED BALANCE SHEETS****(U.S. dollars in thousands, except share data)**

	<b>December 31,</b>	
	<b>2011</b>	<b>2010</b>
<b>Assets</b>		
Investments:		
Fixed maturities available for sale, at fair value (amortized cost: \$9,165,438 and \$8,771,988)	\$ 9,375,604	\$ 8,957,859
Short-term investments available for sale, at fair value (amortized cost: \$909,121 and \$913,488)	904,219	915,841
Investment of funds received under securities lending, at fair value (amortized cost: \$48,577 and \$69,682)	48,419	69,660
Equity securities available for sale, at fair value (cost: \$299,058 and \$292,958)	299,584	310,194
Other investments available for sale, at fair value (cost: \$235,381 and \$252,590)	238,111	275,538
Investments accounted for using the fair value option	366,903	219,173
TALF investments, at fair value (amortized cost: \$373,040 and \$389,200)	387,702	402,449
Investments accounted for using the equity method	380,507	508,334
<b>Total investments</b>	<b>12,001,049</b>	<b>11,659,048</b>
Cash	351,699	362,740
Accrued investment income	70,739	74,837
Investment in joint venture (cost: \$100,000)	107,576	105,698
Fixed maturities and short-term investments pledged under securities lending, at fair value	56,393	75,575
Premiums receivable	501,563	503,434
Reinsurance recoverable on unpaid and paid losses and loss adjustment expenses	1,851,584	1,763,985
Contractholder receivables	748,231	660,546
Prepaid reinsurance premiums	265,696	263,448
Deferred acquisition costs, net	279,109	277,861
Receivable for securities sold	462,891	56,145
Other assets	445,239	475,911
<b>Total Assets</b>	<b>\$ 17,141,769</b>	<b>\$ 16,279,228</b>
<b>Liabilities</b>		
Reserve for losses and loss adjustment expenses	\$ 8,456,210	\$ 8,098,454
Unearned premiums	1,411,872	1,370,075
Reinsurance balances payable	133,866	132,452
Contractholder payables	748,231	660,546
Senior notes	300,000	300,000
Revolving credit agreement borrowings	100,000	100,000
TALF borrowings, at fair value (par: \$310,868 and \$326,219)	310,486	325,770
Securities lending payable	58,546	78,021
Payable for securities purchased	480,230	200,192
Other liabilities	513,842	500,715
<b>Total Liabilities</b>	<b>12,513,283</b>	<b>11,766,225</b>
<b>Commitments and Contingencies</b>		
<b>Shareholders' Equity</b>		
Non-cumulative preferred shares Series A and B	325,000	325,000
Common shares (\$0.0033 par, shares issued: 164,636,338 and 160,073,616)	549	534
Additional paid-in capital	161,419	110,325
Retained earnings	4,833,067	4,422,553
Accumulated other comprehensive income, net of deferred income tax	153,923	204,503



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

Common shares held in treasury, at cost (shares: 30,277,993 and 20,441,391)	(845,472)	(549,912)
Total Shareholders' Equity	4,628,486	4,513,003
Total Liabilities and Shareholders' Equity	\$ 17,141,769	\$ 16,279,228

See Notes to Consolidated Financial Statements

Table of Contents**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES****CONSOLIDATED STATEMENTS OF INCOME**

(U.S. dollars in thousands, except share data)

	Year Ended December 31,		
	2011	2010	2009
<b>Revenues</b>			
Net premiums written	\$ 2,673,326	\$ 2,511,040	\$ 2,763,112
Change in unearned premiums	(41,511)	41,443	79,633
Net premiums earned	2,631,815	2,552,483	2,842,745
Net investment income	338,198	364,878	390,131
Net realized gains	110,646	252,751	143,582
Other-than-temporary impairment losses	(13,850)	(13,073)	(147,509)
Less investment impairments recognized in other comprehensive income, before taxes	4,788	1,752	81,376
Net impairment losses recognized in earnings	(9,062)	(11,321)	(66,133)
Fee income	3,429	5,365	3,462
Equity in net income (loss) of investment funds accounted for using the equity method	(9,605)	61,400	167,819
Other income (loss)	(2,114)	18,511	20,016
<b>Total revenues</b>	<b>3,063,307</b>	<b>3,244,067</b>	<b>3,501,622</b>
<b>Expenses</b>			
Losses and loss adjustment expenses	1,727,553	1,517,715	1,654,674
Acquisition expenses	462,937	441,202	493,560
Other operating expenses	431,480	432,795	392,138
Interest expense	31,691	30,007	24,440
Net foreign exchange (gains) losses	(17,366)	(28,108)	39,157
<b>Total expenses</b>	<b>2,636,295</b>	<b>2,393,611</b>	<b>2,603,969</b>
<b>Income before income taxes</b>	<b>427,012</b>	<b>850,456</b>	<b>897,653</b>
Income taxes:			
Current tax expense	7,823	19,293	23,612
Deferred tax benefit	(17,169)	(11,425)	(2,904)
<b>Income tax (benefit) expense</b>	<b>(9,346)</b>	<b>7,868</b>	<b>20,708</b>
<b>Net income</b>	<b>436,358</b>	<b>842,588</b>	<b>876,945</b>
Preferred dividends	25,844	25,844	25,844
<b>Net income available to common shareholders</b>	<b>\$ 410,514</b>	<b>\$ 816,744</b>	<b>\$ 851,101</b>
<b>Net income per common share</b>			
Basic	\$ 3.10	\$ 5.43	\$ 4.76
Diluted	\$ 2.97	\$ 5.18	\$ 4.58
<b>Weighted average common shares and common share equivalents outstanding</b>			
Basic	132,221,970	150,545,148	178,681,083

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

Diluted

138,289,702

157,565,157

185,781,396

See Notes to Consolidated Financial Statements

139

---

Table of Contents

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME**

(U.S. dollars in thousands)

	Year Ended December 31,		
	2011	2010	2009
<b>Comprehensive Income</b>			
Net income	\$ 436,358	\$ 842,588	\$ 876,945
Other comprehensive income (loss), net of deferred income tax			
Unrealized appreciation (decline) in value of investments:			
Unrealized holding gains arising during period	93,847	236,736	574,184
Portion of other-than-temporary impairment losses recognized in other comprehensive income, net of deferred income tax	(4,788)	(1,752)	(81,376)
Reclassification of net realized gains, net of income taxes, included in net income	(128,350)	(169,931)	(48,578)
Foreign currency translation adjustments	(11,289)	924	11,359
Other comprehensive income (loss)	(50,580)	65,977	455,589
Comprehensive Income	\$ 385,778	\$ 908,565	\$ 1,332,534

See Notes to Consolidated Financial Statements

Table of Contents

## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY

(U.S. dollars in thousands)

	Year Ended December 31,		
	2011	2010	2009
<b>Non-Cumulative Preferred Shares</b>			
Balance at beginning and end of year	\$ 325,000	\$ 325,000	\$ 325,000
<b>Common Shares</b>			
Balance at beginning of year	534	548	605
Common shares issued, net	15	16	10
Purchases of common shares under share repurchase program		(30)	(67)
Balance at end of year	549	534	548
<b>Additional Paid-in Capital</b>			
Balance at beginning of year	110,325	253,466	669,715
Common shares issued	5,767	4,906	3,730
Exercise of stock options	12,305	37,866	16,518
Common shares retired		(217,562)	(463,486)
Amortization of share-based compensation	30,986	31,065	27,042
Other	2,036	584	(53)
Balance at end of year	161,419	110,325	253,466
<b>Retained Earnings</b>			
Balance at beginning of year	4,422,553	3,605,809	2,693,239
Cumulative effect of change in accounting principle(1)			61,469
Balance at beginning of year, as adjusted	4,422,553	3,605,809	2,754,708
Dividends declared on preferred shares	(25,844)	(25,844)	(25,844)
Net income	436,358	842,588	876,945
Balance at end of year	4,833,067	4,422,553	3,605,809
<b>Accumulated Other Comprehensive Income</b>			
Balance at beginning of year	204,503	138,526	(255,594)
Cumulative effect of change in accounting principle(1)			(61,469)
Balance at beginning of year, as adjusted	204,503	138,526	(317,063)
Change in unrealized appreciation in value of investments, net of deferred income tax	(34,503)	66,805	525,606
Portion of other-than-temporary impairment losses recognized in other comprehensive income, net of deferred income tax	(4,788)	(1,752)	(81,376)
Foreign currency translation adjustments, net of deferred income tax	(11,289)	924	11,359
Balance at end of year	153,923	204,503	138,526
<b>Common Shares Held in Treasury, at Cost</b>			
Balance at beginning of year	(549,912)		
Shares repurchased for treasury	(295,560)	(549,912)	
Balance at end of year	(845,472)	(549,912)	

Total Shareholders' Equity	\$ 4,628,486	\$ 4,513,003	\$ 4,323,349
----------------------------	--------------	--------------	--------------

---

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

See Notes to Consolidated Financial Statements

Table of Contents**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES****CONSOLIDATED STATEMENTS OF CASH FLOWS**

(U.S. dollars in thousands)

	Year Ended December 31,		
	2011	2010	2009
<b>Operating Activities</b>			
Net income	\$ 436,358	\$ 842,588	\$ 876,945
Adjustments to reconcile net income to net cash provided by operating activities:			
Net realized gains	(113,922)	(262,684)	(123,841)
Net impairment losses recognized in earnings	9,062	11,321	66,133
Equity in net income or loss of investment funds accounted for using the equity method and other income or loss	71,100	(56,035)	(183,038)
Share-based compensation	30,986	31,065	27,042
Changes in:			
Reserve for losses and loss adjustment expenses, net of unpaid losses and loss adjustment expenses recoverable	274,622	215,570	219,607
Unearned premiums, net of prepaid reinsurance premiums	41,552	(43,337)	(79,842)
Premiums receivable	(7,226)	83,380	44,438
Deferred acquisition costs, net	(1,901)	1,340	17,572
Reinsurance balances payable	5,515	(18,978)	15,913
Other liabilities	43,298	(39,196)	(24,297)
Other items, net	76,668	37,040	136,015
<b>Net Cash Provided By Operating Activities</b>	<b>866,112</b>	<b>802,074</b>	<b>992,647</b>
<b>Investing Activities</b>			
Purchases of:			
Fixed maturity investments	(13,875,635)	(16,936,257)	(21,270,266)
Equity securities	(413,024)	(365,842)	(70,002)
Other investments	(593,862)	(523,532)	(225,477)
Proceeds from the sales of:			
Fixed maturity investments	12,398,253	16,654,774	19,777,948
Equity securities	369,503	70,441	38,336
Other investments	543,757	379,100	300,084
Proceeds from redemptions and maturities of fixed maturity investments	1,034,489	949,870	785,118
Net (purchases) sales of short-term investments	(2,389)	(341,887)	19,570
Change in investment of securities lending collateral	19,475	141,094	534,412
Purchases of furniture, equipment and other assets	(18,987)	(11,664)	(19,483)
<b>Net Cash Provided By (Used For) Investing Activities</b>	<b>(538,420)</b>	<b>16,097</b>	<b>(129,760)</b>
<b>Financing Activities</b>			
Purchases of common shares under share repurchase program	(287,561)	(761,874)	(458,402)
Proceeds from common shares issued, net	6,332	27,649	9,966
Proceeds from borrowings		264,526	269,843
Repayments of borrowings	(15,352)	(157,057)	(51,103)
Change in securities lending collateral	(19,475)	(141,094)	(534,412)
Other	4,765	8,057	4,355
Preferred dividends paid	(25,844)	(25,844)	(25,844)
<b>Net Cash Used For Financing Activities</b>	<b>(337,135)</b>	<b>(785,637)</b>	<b>(785,597)</b>

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

Effects of exchange rate changes on foreign currency cash	(1,598)	(4,365)	5,542
Increase (decrease) in cash	(11,041)	28,169	82,832
Cash beginning of year	362,740	334,571	251,739
Cash end of year	\$ 351,699	\$ 362,740	\$ 334,571

See Notes to Consolidated Financial Statements



Table of Contents

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**1. General**

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 Sirius America Insurance Company, formerly known as White Mountains Reinsurance Company of America, in an asset sale, but retained its surplus and U.S.-licensed reinsurance platform. 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 \$0.0033, 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 and its subsidiaries, including 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, Arch Risk Transfer Services Ltd., Arch Reinsurance Europe Underwriting Limited ("Arch Re Europe"), Arch Mortgage Insurance Limited ("Arch Mortgage"), Arch Insurance Company (Europe) Limited ("Arch Insurance Company Europe") and Lloyd's of London syndicate 2012 and related companies ("Arch Syndicate 2012"). All significant intercompany transactions and balances have been eliminated in consolidation. The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates and assumptions.

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

Table of Contents

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**2. Significant Accounting Policies (Continued)**

In May 2011, shareholders approved a proposal to amend the memorandum of association by sub-dividing the authorized Common Shares of ACGL to effect a three-for-one split of ACGL's Common Shares. The share split changed the Company's authorized Common Shares to 600 million (200 million previously) with a par value of \$0.0033 per share (\$0.01 previously). Information pertaining to the composition of the Company's shareholders' equity accounts, shares and earnings per share has been retroactively adjusted in the accompanying financial statements and notes to the consolidated financial statements to reflect the share split.

(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, specialty lines, lenders products business and for participation in involuntary pools. Such premium estimates are derived from multiple sources which include the historical experience of the underlying business, similar business and available industry information. Unearned premium reserves represent the portion of premiums written that relates to the unexpired terms of in-force insurance policies.

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

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

Table of Contents

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**2. Significant Accounting Policies (Continued)**

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

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

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

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

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

Acquisition expenses and other expenses that vary with, and are directly related to, the acquisition of business related to the Company's underwriting operations are deferred and amortized over the period in which the related premiums are earned. Acquisition expenses, net of ceding commissions received from reinsurers, consist principally of commissions and premium taxes paid to obtain the Company's business. Other operating expenses also include expenses that vary with, and are directly related to, the acquisition of business. Deferred acquisition costs, which are based on the related unearned premiums, are carried at their estimated realizable value and take into account anticipated losses and loss adjustment expenses, based on historical and current experience, and anticipated investment income. A premium deficiency occurs if the sum of anticipated losses and loss adjustment

Table of Contents

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**2. Significant Accounting Policies (Continued)**

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 2011, 2010 or 2009.

(c)

***Deposit Accounting***

Certain assumed reinsurance contracts, which pursuant to Financial Accounting Standards Board ("FASB") guidance regarding the accounting and reporting for reinsurance and short-duration and long-duration contracts, are deemed not to transfer insurance risk, are accounted for using the deposit method of accounting as prescribed in the FASB guidance regarding the accounting for insurance and reinsurance contracts that do not transfer insurance risk. However, it is possible that the Company could incur financial losses on such contracts. Management exercises significant judgment in the assumptions used in determining whether assumed contracts should be accounted for as reinsurance contracts or deposit insurance contracts. Under the FASB guidance, for those contracts that contain an element of underwriting risk, the estimated profit margin is deferred and amortized over the contract period and such amount is included in the Company's underwriting results. When the estimated profit margin is explicit, the margin is reflected as fee income and any adverse financial results on such contracts are reflected as incurred losses. When the estimated profit margin is implicit, the margin is reflected as an offset to paid losses and any adverse financial results on such contracts are reflected as incurred losses. For those contracts that do not transfer an element of underwriting risk, the projected profit is reflected in earnings over the estimated settlement period using the interest method and such profit is included in investment income. Additional judgments are required when applying the accounting guidance with respect to the revenue recognition criteria for contracts deemed not to transfer insurance risk. Deposit accounting liabilities, which totaled \$29.1 million and \$32.4 million, respectively, at December 31, 2011 and 2010, 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

Table of Contents

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**2. Significant Accounting Policies (Continued)**

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. If the reinsurers are unable to satisfy their obligations under the agreements, the Company's insurance or reinsurance subsidiaries would be liable for such defaulted amounts.

(f)

***Cash***

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

(g)

***Investments***

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

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

During 2009, the Company purchased asset-backed and commercial mortgage-backed securities under the Federal Reserve Bank of New York's ("FRBNY") Term Asset-Backed Securities Loan Facility ("TALF") program. TALF provides secured financing for asset-backed securities backed by certain types of consumer and small business loans and for legacy commercial mortgage-backed securities. TALF financing is non-recourse to the Company, except in certain limited instances, and is collateralized by the purchased securities and provides financing for the purchase price of the securities,

Table of Contents

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**2. Significant Accounting Policies (Continued)**

less a 'haircut' that varies based on the type of collateral. The Company can deliver the collateralized securities to a special purpose vehicle created by FRBNY in full defeasance of the borrowing. The Company elected to carry the securities and related borrowings at fair value under the fair value option afforded by accounting guidance regarding the fair value option for financial assets and financial liabilities. The securities purchased under TALF are reflected as "TALF investments, at fair value" and the secured financing from the FRBNY is reflected as "TALF borrowings, at fair value." Changes in fair value for both the securities and borrowings are included in "Net realized gains (losses)," while interest income on the TALF investments is reflected in net investment income and interest expense on the TALF borrowings is reflected in interest expense.

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

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

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

The Company performs quarterly reviews of its investments to determine whether declines in fair value below the cost basis are considered other-than-temporary in accordance with applicable accounting guidance regarding the recognition and presentation of other-than-temporary impairments ("OTTI"). The process of determining whether a security is other-than-temporarily impaired requires judgment and involves analyzing many factors. These factors include (i) an analysis of the liquidity, business prospects and overall financial condition of the issuer, (ii) the time period in which there was a significant decline in value, (iii) the significance of the decline and (iv) the analysis of specific credit events. The Company evaluates the unrealized losses of its equity securities by issuer and forecasts a reasonable period of time by which the fair value of the securities would increase and the Company would recover its cost. If the Company is unable to forecast a reasonable period of time in which to recover the cost of its equity securities, a net impairment loss in earnings equivalent to the entire unrealized loss is recognized.

Table of Contents

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**2. Significant Accounting Policies (Continued)**

In 2009, the Company adopted additional guidance that requires entities to separate an other-than-temporary impairment of a debt security into two components when there are credit related losses associated with the impaired debt security for which an entity asserts that it does not have the intent to sell the security, and it is more likely than not that it will not be required to sell the security before recovery of its cost basis. The effect of adoption was an increase to the amortized cost basis of debt securities that were impaired prior to 2009, net of deferred tax, of \$62.0 million. The cumulative effect adjustment had no effect on total shareholders' equity as it increased retained earnings and reduced accumulated other comprehensive income. In accordance with the additional guidance, the amount of the OTTI related to a credit loss is recognized in earnings, and the amount of the OTTI related to other factors (*e.g.*, interest rates, market conditions, etc.) is recorded as a component of other comprehensive income (loss). The amount of the credit loss of an impaired debt security is the difference between the amortized cost and the greater of (i) the present value of expected future cash flows and (ii) the fair value of the security. In instances where no credit loss exists but it is more likely than not that the Company will have to sell the debt security prior to the anticipated recovery, the decline in fair value below amortized cost is recognized as an OTTI in earnings. In periods after the recognition of an OTTI on debt securities, the Company accounts for such securities as if they had been purchased on the measurement date of the OTTI at an amortized cost basis equal to the previous amortized cost basis less the OTTI recognized in earnings. For debt securities for which OTTI were recognized in earnings, the difference between the new amortized cost basis and the cash flows expected to be collected will be accreted or amortized into net investment income. See Note 7, "Investment Information - Other-Than-Temporary Impairments" for additional information.

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

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

Table of Contents

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**2. Significant Accounting Policies (Continued)**

(loss) of investment funds accounted for using the equity method includes changes in the fair 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 fair value, is excluded from net income and recorded as a separate component of other comprehensive income, net of applicable deferred income tax.

(h)

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

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

(i)

***Contractholder Receivables and Payables***

Certain insurance policies written by the Company's insurance operations feature large deductibles, primarily in its construction and national accounts lines of business. Under such contracts, the Company is obligated to pay the claimant for the full amount of the claim. The Company is subsequently reimbursed by the policyholder for the deductible amount. These amounts are included on a gross basis in the consolidated balance sheet in contractholder payables and contractholder receivables, respectively. In the event that the Company is unable to collect from the policyholder, the Company would record an increase to losses and loss adjustment expenses related to such policy.



Table of Contents

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**2. Significant Accounting Policies (Continued)**

(j)

***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.

(k)

***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.

(l)

***Share-Based Payment Arrangements***

The Company applies a fair value based measurement method in accounting for its share-based payment arrangements with eligible employees and directors. Compensation expense is estimated based on the fair value of the award at the grant date and is recognized in net income over the requisite service period with a corresponding increase in shareholders' equity. No value is attributed to awards that employees forfeit because they fail to satisfy vesting conditions. As such, the number of shares granted is reduced by assumed forfeitures and adjusted based on actual forfeitures until vesting. The Company's share-based payment arrangements generally vest over a three year period with one-third vesting on the first, second and third anniversaries of the grant date. The share-based compensation expense associated with such awards that have graded vesting features and vest based on service

Table of Contents

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**2. Significant Accounting Policies (Continued)**

conditions only is calculated on a straight-line basis over the requisite service period for the entire award. For awards granted to retirement-eligible employees where no service is required for the employee to retain the award, the grant date fair value is immediately recognized as compensation expense at the grant date because the employee is able to retain the award without continuing to provide service. For employees near retirement eligibility, attribution of compensation cost is over the period from the grant date to the retirement eligibility date. These charges had no impact on the Company's cash flows or total shareholders' equity. See Note 17 for information relating to the Company's share-based payment awards.

(m)

***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.

(n)

***Treasury Shares***

Treasury shares are common shares purchased by the Company and not subsequently cancelled. These shares are recorded at cost and result in a reduction of the Company's shareholders' equity in its Consolidated Balance Sheets.

(o)

***Recent Accounting Pronouncements***

In October 2010, the Financial Accounting Standards Board ("FASB") issued an Accounting Standards Update ("ASU") that modifies the definition of the types of costs incurred by insurance entities that can be capitalized in the acquisition of new or renewal insurance contracts. The amended guidance specifies that certain costs incurred in the successful acquisition of new and renewal insurance contracts should be capitalized. Those costs include incremental direct costs of contract acquisition that result directly from and are essential to the contract transaction and would not have been incurred had the contract transaction not occurred. All other acquisition-related costs, such as costs incurred for soliciting business, administration, and unsuccessful acquisition or renewal efforts should be charged to expense as incurred. Administrative costs, including rent, depreciation, occupancy, equipment, and all other general overhead costs are considered indirect costs and should also be charged to expense as incurred. This ASU is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2011 with earlier adoption permitted. Retrospective application to all prior periods presented upon the date of adoption is also permitted but is not required. The Company plans to adopt this ASU on January 1, 2012 using a retrospective application and, based on a preliminary analysis, does not expect the adoption of the ASU to have a material impact on its consolidated financial statements. In applying the retrospective application, deferred policy acquisition costs and related deferred taxes will be reduced as of the beginning of the earliest period presented in the financial statements with a corresponding reduction to shareholders' equity.

In May 2011, the FASB issued an ASU that provides clarification or changes to existing fair value measurement and disclosure requirements, including, for example, additional disclosure for fair value measurements categorized within Level 3 of the fair value hierarchy. This ASU is effective for interim and annual periods beginning after December 15, 2011 and is to be applied prospectively. Early

Table of Contents

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**2. Significant Accounting Policies (Continued)**

application is not permitted. The Company is evaluating the impact the new guidance will have on its consolidated financial statements.

In June 2011, the FASB issued an ASU that is intended to increase the prominence of other comprehensive income in the financial statements by allowing only two options for reporting comprehensive income: (1) A single statement that presents the components of net income and total net income, the components of other comprehensive income and total other comprehensive income, and a total for comprehensive income or (2) in a two-statement approach that presents the components of net income and total net income in the first statement. That statement must be immediately followed by a financial statement that presents the components of other comprehensive income, a total for other comprehensive income, and a total for comprehensive income. This ASU is effective for interim and annual periods beginning after December 15, 2011 and should be applied retrospectively. Early adoption is permitted. The Company does not believe that the adoption of this ASU will impact the presentation of its consolidated financial statements.

**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 Chairman, 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 accounting guidance regarding 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. Specialty product lines include: casualty; construction; executive assurance; healthcare; lenders products; national accounts; professional liability; programs; property, energy, marine and aviation; surety; travel and accident; and other (consisting of excess workers' compensation, employer's liability and alternative markets 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 contracts. 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); and other (consisting of non-traditional and casualty clash business).

Corporate and other (non-underwriting) includes net investment income, other income (loss), other expenses incurred by the Company, interest expense, net realized gains or losses, net impairment

Table of Contents

## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

**3. Segment Information (Continued)**

losses recognized in earnings, equity in net income (loss) of investment funds accounted for using the equity method, net foreign exchange gains or losses, income taxes and dividends on the Company's non-cumulative preferred shares.

The following tables set forth an analysis of the Company's underwriting income by segment, together with a reconciliation of underwriting income to net income available to common shareholders, summary information regarding net premiums written and earned by major line of business and net premiums written by location:

	Year Ended December 31, 2011		
	Insurance	Reinsurance	Total
Gross premiums written(1)	\$ 2,444,485	\$ 998,520	\$ 3,436,456
Net premiums written(1)	1,721,279	952,047	2,673,326
Net premiums earned(1)	\$ 1,679,047	\$ 952,768	\$ 2,631,815
Fee income	2,870	559	3,429
Losses and loss adjustment expenses	(1,172,742)	(554,811)	(1,727,553)
Acquisition expenses, net	(278,696)	(184,241)	(462,937)
Other operating expenses	(306,801)	(93,299)	(400,100)
Underwriting income (loss)	\$ (76,322)	\$ 120,976	44,654
Net investment income			338,198
Net realized gains			110,646
Net impairment losses recognized in earnings			(9,062)
Equity in net income (loss) of investment funds accounted for using the equity method			(9,605)
Other income (loss)			(2,114)
Other expenses			(31,380)
Interest expense			(31,691)
Net foreign exchange gains			17,366
Income before income taxes			427,012
Income tax expense			9,346
Net income			436,358
Preferred dividends			(25,844)
Net income available to common shareholders			\$ 410,514
<b>Underwriting Ratios</b>			
Loss ratio	69.8%	58.2%	65.6%
Acquisition expense ratio(2)	16.4%	19.3%	17.5%
Other operating expense ratio	18.3%	9.8%	15.2%
Combined ratio	104.5%	87.3%	98.3%

(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.

(2)

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

Table of Contents

## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 3. Segment Information (Continued)

	Year Ended December 31, 2010		
	Insurance	Reinsurance	Total
Gross premiums written(1)	\$ 2,402,202	\$ 874,957	\$ 3,266,787
Net premiums written(1)	1,658,963	852,077	2,511,040
Net premiums earned(1)	\$ 1,651,106	\$ 901,377	\$ 2,552,483
Fee income	3,252	2,113	5,365
Losses and loss adjustment expenses	(1,117,564)	(400,151)	(1,517,715)
Acquisition expenses, net	(263,201)	(178,001)	(441,202)
Other operating expenses	(312,404)	(91,523)	(403,927)
Underwriting income (loss)	\$ (38,811)	\$ 233,815	195,004
Net investment income			364,878
Net realized gains			252,751
Net impairment losses recognized in earnings			(11,321)
Equity in net income of investment funds accounted for using the equity method			61,400
Other income			18,511
Other expenses			(28,868)
Interest expense			(30,007)
Net foreign exchange gains			28,108
Income before income taxes			850,456
Income tax expense			(7,868)
Net income			842,588
Preferred dividends			(25,844)
Net income available to common shareholders			\$ 816,744
<b>Underwriting Ratios</b>			
Loss ratio	67.7%	44.4%	59.5%
Acquisition expense ratio(2)	15.7%	19.7%	17.2%
Other operating expense ratio	18.9%	10.2%	15.8%
Combined ratio	102.3%	74.3%	92.5%

(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.

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

Table of Contents

## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 3. Segment Information (Continued)

	Year Ended December 31, 2009		
	Insurance	Reinsurance	Total
Gross premiums written(1)	\$ 2,512,127	\$ 1,093,940	\$ 3,592,931
Net premiums written(1)	1,704,284	1,058,828	2,763,112
Net premiums earned(1)	\$ 1,688,519	\$ 1,154,226	\$ 2,842,745
Fee income	3,362	100	3,462
Losses and loss adjustment expenses	(1,139,415)	(515,259)	(1,654,674)
Acquisition expenses, net	(238,261)	(255,299)	(493,560)
Other operating expenses	(281,340)	(80,567)	(361,907)
Underwriting income	\$ 32,865	\$ 303,201	336,066
Net investment income			390,131
Net realized gains			143,582
Net impairment losses recognized in earnings			(66,133)
Equity in net income of investment funds accounted for using the equity method			167,819
Other income			20,016
Other expenses			(30,231)
Interest expense			(24,440)
Net foreign exchange losses			(39,157)
Income before income taxes			897,653
Income tax expense			(20,708)
Net income			876,945
Preferred dividends			(25,844)
Net income available to common shareholders			\$ 851,101
<b>Underwriting Ratios</b>			
Loss ratio	67.5%	44.6%	58.2%
Acquisition expense ratio(2)	13.9%	22.1%	17.2%
Other operating expense ratio	16.7%	7.0%	12.7%
Combined ratio	98.1%	73.7%	88.1%

(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.

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

Table of Contents

## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 3. Segment Information (Continued)

INSURANCE SEGMENT	Year Ended December 31,		
	2011	2010	2009
<b>Net premiums written(1)</b>			
Property, energy, marine and aviation	\$ 335,589	\$ 321,529	\$ 353,761
Programs	297,985	273,076	274,735
Professional liability	237,860	268,176	258,187
Executive assurance	231,405	219,458	220,088
Construction	120,405	112,827	131,792
Casualty	114,235	107,962	103,546
Travel and accident	71,940	71,237	68,617
National accounts	80,973	67,925	79,088
Lenders products	86,694	92,921	75,357
Surety	42,475	34,149	43,353
Healthcare	35,652	37,508	42,350
Other(2)	66,066	52,195	53,410
Total	\$ 1,721,279	\$ 1,658,963	\$ 1,704,284
<b>Net premiums earned(1)</b>			
Property, energy, marine and aviation	\$ 322,510	\$ 335,967	\$ 338,430
Programs	287,598	272,406	275,586
Professional liability	252,037	264,603	255,117
Executive assurance	228,623	218,135	212,962
Construction	112,764	109,394	139,963
Casualty	111,654	109,613	121,146
Travel and accident	69,945	66,791	66,127
National accounts	79,542	74,538	67,093
Lenders products	75,291	71,170	62,906
Surety	41,119	37,967	49,219
Healthcare	35,906	39,722	43,947
Other(2)	62,058	50,800	56,023
Total	\$ 1,679,047	\$ 1,651,106	\$ 1,688,519
<b>Net premiums written by client location(1)</b>			
United States	\$ 1,208,007	\$ 1,183,238	\$ 1,268,347
Europe	273,578	272,348	267,093
Other	239,694	203,377	168,844
Total	\$ 1,721,279	\$ 1,658,963	\$ 1,704,284
<b>Net premiums written by underwriting location(1)</b>			
United States	\$ 1,153,835	\$ 1,133,173	\$ 1,243,063
Europe	463,855	436,483	384,363
Other	103,589	89,307	76,858
Total	\$ 1,721,279	\$ 1,658,963	\$ 1,704,284



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

- (1) Insurance segment results include premiums written and earned assumed through intersegment transactions and exclude premiums written and earned ceded through intersegment transactions.
- (2) Includes excess workers' compensation, employer's liability, alternative markets and accident and health business.

Table of Contents

## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 3. Segment Information (Continued)

REINSURANCE SEGMENT	Year Ended December 31,		
	2011	2010	2009
<b>Net premiums written(1)</b>			
Property excluding property catastrophe(2)	\$ 226,013	\$ 249,791	\$ 349,915
Property catastrophe	246,793	202,989	237,445
Casualty(3)	181,957	186,774	325,699
Other specialty	211,019	131,158	65,189
Marine and aviation	77,309	77,063	77,677
Other	8,956	4,302	2,903
Total	\$ 952,047	\$ 852,077	\$ 1,058,828
<b>Net premiums earned(1)</b>			
Property excluding property catastrophe(2)	\$ 243,702	\$ 282,163	\$ 373,088
Property catastrophe	238,748	215,148	236,073
Casualty(3)	196,370	231,338	344,938
Other specialty	189,093	95,611	106,698
Marine and aviation	77,819	72,886	90,441
Other	7,036	4,231	2,988
Total	\$ 952,768	\$ 901,377	\$ 1,154,226
<b>Net premiums written(1)</b>			
Pro rata	\$ 416,321	\$ 411,962	\$ 586,212
Excess of loss	535,726	440,115	472,616
Total	\$ 952,047	\$ 852,077	\$ 1,058,828
<b>Net premiums earned(1)</b>			
Pro rata	\$ 435,311	\$ 449,532	\$ 704,470
Excess of loss	517,457	451,845	449,756
Total	\$ 952,768	\$ 901,377	\$ 1,154,226
<b>Net premiums written by client location(1)</b>			
United States	\$ 512,319	\$ 496,947	\$ 668,985
Europe	250,809	195,006	213,211
Bermuda	60,246	75,517	127,212
Other	128,673	84,607	49,420
Total	\$ 952,047	\$ 852,077	\$ 1,058,828
<b>Net premiums written by underwriting location(1)</b>			
Bermuda	\$ 531,254	\$ 461,890	\$ 596,334
United States	323,731	307,639	396,947
Other	97,062	82,548	65,547
Total	\$ 952,047	\$ 852,077	\$ 1,058,828

- (1) Reinsurance segment results include premiums written and earned assumed through intersegment transactions and exclude premiums written and earned ceded through intersegment transactions.
- (2) Includes facultative business.
- (3) Includes professional liability, executive assurance and healthcare business.

Table of Contents**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 portion of their premium through pro rata and excess of loss reinsurance agreements on a treaty or facultative basis. 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.

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

	Year Ended December 31,		
	2011	2010	2009
<b>Premiums Written</b>			
Direct	\$ 2,402,153	\$ 2,338,428	\$ 2,427,044
Assumed	1,034,303	928,359	1,165,887
Ceded	(763,130)	(755,747)	(829,819)
Net	\$ 2,673,326	\$ 2,511,040	\$ 2,763,112
<b>Premiums Earned</b>			
Direct	\$ 2,357,656	\$ 2,345,774	\$ 2,439,173
Assumed	1,034,939	976,911	1,269,454
Ceded	(760,780)	(770,202)	(865,882)
Net	\$ 2,631,815	\$ 2,552,483	\$ 2,842,745
<b>Losses and Loss Adjustment Expenses</b>			
Direct	\$ 1,584,815	\$ 1,538,131	\$ 1,486,349
Assumed	630,466	429,551	559,776
Ceded	(487,728)	(449,967)	(391,451)
Net	\$ 1,727,553	\$ 1,517,715	\$ 1,654,674

The Company monitors the financial condition of its reinsurers and attempts to place coverages only with substantial, financially sound carriers. At December 31, 2011, approximately 90.1% of the Company's reinsurance recoverables on paid and unpaid losses (not including prepaid reinsurance premiums) of \$1.85 billion were due from carriers which had an A.M. Best rating of "A-" or better and the largest reinsurance recoverables from any one carrier was approximately 5.4% of the Company's total shareholders' equity. At December 31, 2010, approximately 91.1% of the Company's reinsurance recoverables on paid and unpaid losses (not including prepaid reinsurance premiums) of \$1.76 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 approximately 5.5% of the Company's total shareholders' equity. Although the Company has not experienced any material credit losses to date, an ability of its reinsurers or retrocessionaires to meet their obligations to it over the relevant exposure

Table of Contents

## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

**4. Reinsurance (Continued)**

periods for any reason could have a material adverse effect on its financial condition and results of operations.

**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:

	Year Ended December 31,		
	2011	2010	2009
Reserve for losses and loss adjustment expenses at beginning of year	\$ 8,098,454	\$ 7,873,412	\$ 7,666,957
Unpaid losses and loss adjustment expenses recoverable	1,703,201	1,659,500	1,729,135
Net reserve for losses and loss adjustment expenses at beginning of year	6,395,253	6,213,912	5,937,822
Net incurred losses and loss adjustment expenses relating to losses occurring in:			
Current year	2,012,569	1,664,411	1,843,875
Prior years	(285,016)	(146,696)	(189,201)
Total net incurred losses and loss adjustment expenses	1,727,553	1,517,715	1,654,674
Foreign exchange (gains) losses	(32,020)	(29,089)	60,506
Net paid losses and loss adjustment expenses relating to losses occurring in:			
Current year	(325,273)	(200,789)	(272,295)
Prior years	(1,127,350)	(1,106,496)	(1,166,795)
Total net paid losses and loss adjustment expenses	(1,452,623)	(1,307,285)	(1,439,090)
Net reserve for losses and loss adjustment expenses at end of year	6,638,163	6,395,253	6,213,912
Unpaid losses and loss adjustment expenses recoverable	1,818,047	1,703,201	1,659,500
Reserve for losses and loss adjustment expenses at end of year	\$ 8,456,210	\$ 8,098,454	\$ 7,873,412

***2011 Prior Year Reserve Development***

During 2011, the Company recorded estimated net favorable development on prior year loss reserves of \$285.0 million, which consisted of \$232.9 million from the reinsurance segment and \$52.1 million from the insurance segment.

The reinsurance segment's net favorable development of \$232.9 million, or 24.4 points of net premiums earned, consisted of \$118.5 million from short-tailed lines, \$99.0 million from long-tailed lines and \$15.4 million from medium-tailed lines. Favorable development in short-tailed lines included \$97.6 million of favorable development from property catastrophe and property other than property catastrophe reserves. Such amount included reductions of \$7.5 million, \$25.8 million and \$59.8 million

Table of Contents**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****5. Reserve for Losses and Loss Adjustment Expenses (Continued)**

from the 2007, 2009 and 2010 underwriting years, respectively, and \$4.5 million from all other underwriting years. In addition, favorable development on short-tailed lines included \$20.8 million in other specialty business, including \$3.7 million, \$2.2 million, \$6.2 million and \$2.7 million, respectively, from the 2007 to 2010 underwriting years, respectively, and \$6.0 million from prior underwriting years. The reduction of loss estimates for the reinsurance segment's short-tailed lines primarily resulted from a lower level of reported and paid claims activity than previously anticipated which led to decreases in certain loss ratio selections during 2011. The reduction of loss estimates in 2011 for the reinsurance segment's short-tailed lines included an aggregate of \$19.4 million of favorable development from the 2005, 2008 and 2010 named catastrophic events. Net favorable development of \$99.0 million in long-tailed lines included reductions in casualty reserves from the 2002 to 2007 underwriting years of \$14.1 million, \$16.6 million, \$30.9 million, \$24.7 million, \$11.3 million and \$16.2 million, respectively, which primarily resulted from a lower level of reported and paid claims activity than previously anticipated on U.S. and international excess liability, professional liability and D&O lines. Such amounts were partially offset by adverse development of \$2.2 million and \$12.4 million from the 2008 and 2009 underwriting years, respectively, on long-tailed lines which primarily resulted from increases in loss selections due to the reinsurance segment's view of the current insurance environment. Favorable development on medium-tailed lines resulted from reductions in marine and aviation reserves of \$2.3 million, \$2.2 million and \$6.7 million, respectively, from the 2006 to 2008 underwriting years and \$4.2 million from other underwriting years. The reinsurance segment's reserves for more mature underwriting years are now based more on actual loss activity and historical patterns than on the initial assumptions based on pricing indications.

The insurance segment's net favorable development of \$52.1 million, or 3.1 points of net premiums earned, consisted of net favorable development of \$75.7 million from short-tailed lines, partially offset by \$23.6 million of net adverse development from medium-tailed and long-tailed lines. Favorable development in short-tailed lines reflected \$67.2 million of favorable development in property reserves, including \$18.1 million, \$19.3 million and \$31.1 million, respectively, from the 2008 to 2010 accident years (*i.e.*, the year in which a loss occurred), and \$7.5 million of favorable development in surety business, including \$2.7 million, \$4.2 million and \$5.0 million from the 2004, 2008 and 2009 accident years, partially offset by \$3.8 million of adverse development from the 2006 accident year. The reduction of loss estimates in 2011 for the insurance segment's short-tailed lines included an aggregate of \$23.0 million of favorable development from the 2005, 2008 and 2010 named catastrophic events. In addition, adverse development in alternative markets business from the 2009 to 2010 accident years of \$9.3 million, which was primarily related to experience on a single account, was partially offset by \$8.0 million of favorable development from the 2004 to 2008 accident years. The adverse development on longer-tailed lines primarily resulted from \$32.3 million of increases in casualty reserves which included \$14.3 million of adverse development, primarily from the 2005 and 2007 accident years, on New York residential contractors business based on the most recent actuarial analyses, \$8.5 million of adverse development on a 2010 accident year energy casualty claim, and \$9.5 million from other commercial claims. In addition, there was \$9.8 million of adverse development in program business, including \$2.8 million and \$6.8 million from the 2003 and 2004 accident years on a small number of programs. Favorable development was indicated on healthcare business, with \$13.8 million of releases from the 2004 to 2008 accident years resulting from a continuation of better than expected loss emergence, and on marine business, with \$4.6 million of releases in the 2009 accident year. Development in professional lines (professional liability and executive assurance) was minimal in the aggregate, with adverse development of \$3.0 million, \$10.4 million and \$11.6 million in the 2006, 2008

Table of Contents**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****5. Reserve for Losses and Loss Adjustment Expenses (Continued)**

and 2010 accident years substantially offset by favorable development of \$8.2 million and \$15.2 million from the 2007 and 2009 accident years.

***2010 Prior Year Reserve Development***

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

The reinsurance segment's net favorable development of \$127.6 million, or 14.2 points, consisted of \$84.2 million from short-tailed lines, \$34.1 million from long-tailed lines and \$9.3 million from medium-tailed lines. Favorable development in short-tailed lines included \$61.0 million of favorable development from property catastrophe and property other than property catastrophe reserves. Such amount included reductions of \$9.4 million, \$11.2 million and \$28.6 million from the 2007, 2008 and 2009 underwriting years, respectively, and \$11.8 million from prior underwriting years. In addition, favorable development in other specialty business included \$4.7 million and \$7.8 million from the 2008 and 2009 underwriting years, respectively, and \$10.7 million from prior underwriting years. The reduction of loss estimates for the reinsurance segment's short-tailed lines primarily resulted from a lower level of reported and paid claims activity than previously anticipated which led to decreases in certain loss ratio selections during 2010. Net favorable development of \$34.1 million in long-tailed lines included reductions in casualty reserves from the 2002 to 2006 underwriting years of \$10.8 million, \$17.5 million, \$33.3 million, \$13.5 million and \$5.8 million, respectively, which primarily resulted from a lower level of reported and paid claims activity than previously anticipated on U.S. and international excess liability, professional liability and D&O lines. Such amounts were partially offset by adverse development of \$7.5 million, \$31.9 and \$5.6 million from the 2007 to 2009 underwriting years, respectively, on long-tailed lines which primarily resulted from increases in loss selections due to the reinsurance segment's view of the current insurance environment. Favorable development on medium-tailed lines resulted from reductions in marine and aviation reserves of \$8.3 million from the 2007 underwriting year and \$7.7 million from other underwriting years, partially offset by adverse development of \$6.7 million from the 2008 underwriting year.

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

Table of Contents

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**5. Reserve for Losses and Loss Adjustment Expenses (Continued)**

reductions from the 2003, 2004, 2006 and 2007 accident years of \$2.0 million, \$2.6 million, \$3.4 million and \$7.6 million, respectively.

***2009 Prior Year Reserve Development***

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

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

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



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, Arch Re Bermuda and GIC each own 50% of Gulf Re, which commenced underwriting activities in June 2008. Gulf Re provides property and casualty reinsurance primarily in the member states of the Gulf Cooperation Council, which include Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates. The initial capital of the joint venture consisted of \$200.0 million with an additional \$200.0 million commitment to be funded equally by the Company and GIC depending on the joint venture's business needs. 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.

Table of Contents

## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 7. Investment Information

*Available For Sale Securities*

The following table summarizes the fair value and cost or amortized cost of the Company's securities classified as available for sale:

	Estimated Fair Value	Gross Unrealized Gains	Gross Unrealized Losses	Cost or Amortized Cost	OTI Unrealized Losses(2)
<b>At December 31, 2011</b>					
Fixed maturities and fixed maturities pledged under securities lending agreements(1):					
Corporate bonds	\$ 2,596,118	\$ 79,407	\$ (29,922)	\$ 2,546,633	\$ (1,138)
Mortgage backed securities	1,592,762	27,633	(23,226)	1,588,355	(20,466)
Municipal bonds	1,430,565	77,977	(886)	1,353,474	(105)
Commercial mortgage backed securities	1,046,326	28,780	(2,904)	1,020,450	(3,259)
U.S. government and government agencies	1,451,993	34,811	(3)	1,417,185	(207)
Non-U.S. government securities	737,477	33,486	(17,684)	721,675	
Asset backed securities	576,757	14,649	(10,078)	572,186	(3,876)
Total	9,431,998	296,743	(84,703)	9,219,958	(29,051)
Equity securities	299,584	22,870	(22,344)	299,058	
Other investments	238,111	8,340	(5,610)	235,381	
Short-term investments	904,219	390	(5,292)	909,121	
Total	\$ 10,873,912	\$ 328,343	\$ (117,949)	\$ 10,663,518	\$ (29,051)
<b>At December 31, 2010</b>					
Fixed maturities and fixed maturities pledged under securities lending agreements(1):					
Corporate bonds	\$ 2,714,375	\$ 97,400	\$ (18,343)	\$ 2,635,318	\$ (18,047)
Mortgage backed securities	1,806,813	18,801	(26,893)	1,814,905	(21,147)
Municipal bonds	1,182,100	40,410	(6,958)	1,148,648	(125)
Commercial mortgage backed securities	1,167,299	31,743	(6,028)	1,141,584	(3,481)
U.S. government and government agencies	872,149	20,150	(5,696)	857,695	(207)
Non-U.S. government securities	732,666	39,539	(11,894)	705,021	(72)
Asset backed securities	558,032	20,672	(3,990)	541,350	(3,954)
Total	9,033,434	268,715	(79,802)	8,844,521	(47,033)
Equity securities	310,194	20,660	(3,424)	292,958	
Other investments	275,538	24,280	(1,332)	252,590	
Short-term investments	915,841	2,845	(492)	913,488	
Total	\$ 10,535,007	\$ 316,500	\$ (85,050)	\$ 10,303,557	\$ (47,033)

(1)

In securities lending transactions, the Company receives collateral in excess of the fair value of the fixed maturities and short-term investments pledged. For purposes of this table, the Company has excluded the collateral received and reinvested and included the fixed maturities and short-term investments pledged. See " Securities Lending Agreements."

(2)

Represents the total other-than-temporary impairments ("OTTI") recognized in accumulated other comprehensive income ("AOCI"). It does not include the change in fair value subsequent to the impairment measurement date. At December 31, 2011, the net unrealized loss related to securities for which a non-credit OTTI was recognized in AOCI was \$18.0 million, compared to a net unrealized loss of \$7.1 million at December 31, 2010.

Table of Contents

## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 7. Investment Information (Continued)

The following table summarizes, for all available for sale securities in an unrealized loss position, the fair value and gross unrealized loss by length of time the security has been in a continual unrealized loss position:

	Less than 12 Months		12 Months or More		Total	
	Estimated Fair Value	Gross Unrealized Losses	Estimated Fair Value	Gross Unrealized Losses	Estimated Fair Value	Gross Unrealized Losses
<b>At December 31, 2011</b>						
Fixed maturities and fixed maturities pledged under securities lending agreements(1):						
Corporate bonds	\$ 781,635	\$ (24,977)	\$ 47,687	\$ (4,945)	\$ 829,322	\$ (29,922)
Mortgage backed securities	255,101	(11,988)	44,606	(11,238)	299,707	(23,226)
Municipal bonds	39,156	(537)	14,988	(349)	54,144	(886)
Commercial mortgage backed securities	87,796	(1,676)	14,582	(1,228)	102,378	(2,904)
U.S. government and government agencies	7,059	(3)			7,059	(3)
Non-U.S. government securities	310,182	(16,139)	20,482	(1,545)	330,664	(17,684)
Asset backed securities	260,647	(8,197)	7,317	(1,881)	267,964	(10,078)
<b>Total</b>	<b>1,741,576</b>	<b>(63,517)</b>	<b>149,662</b>	<b>(21,186)</b>	<b>1,891,238</b>	<b>(84,703)</b>
Equity securities	130,045	(22,039)	1,923	(305)	131,968	(22,344)
Other investments	98,605	(3,053)	22,443	(2,557)	121,048	(5,610)
Short-term investments	189,100	(5,292)			189,100	(5,292)
<b>Total</b>	<b>\$ 2,159,326</b>	<b>\$ (93,901)</b>	<b>\$ 174,028</b>	<b>\$ (24,048)</b>	<b>\$ 2,333,354</b>	<b>\$ (117,949)</b>
<b>At December 31, 2010</b>						
Fixed maturities and fixed maturities pledged under securities lending agreements(1):						
Corporate bonds	\$ 530,956	\$ (16,580)	\$ 20,351	\$ (1,763)	\$ 551,307	\$ (18,343)
Mortgage backed securities	913,138	(20,331)	57,895	(6,562)	971,033	(26,893)
Municipal bonds	294,978	(6,440)	8,465	(518)	303,443	(6,958)
Commercial mortgage backed securities	311,703	(5,273)	22,030	(755)	333,733	(6,028)
U.S. government and government agencies	190,497	(5,696)			190,497	(5,696)
Non-U.S. government securities	271,446	(7,418)	45,884	(4,476)	317,330	(11,894)
Asset backed securities	75,655	(827)	8,126	(3,163)	83,781	(3,990)
<b>Total</b>	<b>2,588,373</b>	<b>(62,565)</b>	<b>162,751</b>	<b>(17,237)</b>	<b>2,751,124</b>	<b>(79,802)</b>
Equity securities	68,629	(3,424)			68,629	(3,424)
Other investments	46,750	(916)	2,850	(416)	49,600	(1,332)
Short-term investments	42,030	(492)			42,030	(492)
<b>Total</b>	<b>\$ 2,745,782</b>	<b>\$ (67,397)</b>	<b>\$ 165,601</b>	<b>\$ (17,653)</b>	<b>\$ 2,911,383</b>	<b>\$ (85,050)</b>

(1)

In securities lending transactions, the Company receives collateral in excess of the fair value of the fixed maturities and short-term investments pledged. For purposes of this table, the Company has excluded the collateral received and reinvested and included the fixed maturities and short-term investments pledged. See " Securities Lending Agreements."



Table of Contents**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****7. Investment Information (Continued)**

At December 31, 2011, on a lot level basis, approximately 1,150 security lots out of a total of approximately 4,520 security lots were in an unrealized loss position and the largest single unrealized loss from a single lot in the Company's fixed maturity portfolio was \$3.0 million. At December 31, 2010, on a lot level basis, approximately 1,130 security lots out of a total of approximately 4,360 security lots were in an unrealized loss position and the largest single unrealized loss from a single lot in the Company's fixed maturity portfolio was \$2.6 million.

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

Maturity	December 31, 2011		December 31, 2010	
	Estimated Fair Value	Amortized Cost	Estimated Fair Value	Amortized Cost
Due in one year or less	\$ 486,986	\$ 476,734	\$ 414,390	\$ 398,795
Due after one year through five years	2,850,578	2,793,982	2,924,879	2,833,955
Due after five years through 10 years	2,532,834	2,441,800	1,719,446	1,671,306
Due after 10 years	345,755	326,451	442,575	442,626
	6,216,153	6,038,967	5,501,290	5,346,682
Mortgage backed securities	1,592,762	1,588,355	1,806,813	1,814,905
Commercial mortgage backed securities	1,046,326	1,020,450	1,167,299	1,141,584
Asset backed securities	576,757	572,186	558,032	541,350
Total	\$ 9,431,998	\$ 9,219,958	\$ 9,033,434	\$ 8,844,521

***Securities Lending Agreements***

The Company operates 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. 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. At December 31, 2011, the fair value and amortized cost of fixed maturities and short-term investments pledged under securities lending agreements were \$56.4 million and \$54.5 million, respectively, compared to \$75.6 million and \$72.5 million at December 31, 2010, respectively. At December 31, 2011, the portfolio of collateral backing the Company's securities lending program included approximately \$7.3 million fair value of sub-prime securities with an average credit quality of "CCC/Caa2" from Standard & Poor's Rating Services ("S&P")/Moody's Investors Service ("Moody's"), compared to \$13.2 million with an average credit quality of "B-/Caa2" from S&P/Moody's at December 31, 2010.

***Fair Value Option***

The Company elected to carry certain fixed maturity securities, equity securities and other investments at fair value under the fair value option afforded by accounting guidance regarding the fair value option for financial assets and liabilities. Changes in fair value of investments accounted for using the fair value option are included in "Net realized gains (losses)." The primary reasons for electing the

Table of Contents

## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

**7. Investment Information (Continued)**

fair value option were to reflect economic events in earnings on a timely basis and address simplification and cost-benefit considerations.

The Company also elected to carry the securities and related borrowings under the Federal Reserve Bank of New York's ("FRBNY") Term Asset-Backed Securities Loan Facility ("TALF") at fair value under the fair value option. The primary reason for electing the fair value option on the TALF investments and TALF borrowings was to mitigate volatility in equity from using different measurement attributes (*i.e.*, TALF investments carried at fair value whereas the related TALF borrowings would be recorded on an accrual basis absent electing the fair value option). Changes in fair value for both the securities and borrowings are included in "Net realized gains (losses)" while interest income on the TALF investments is reflected in net investment income and interest expense on the TALF borrowings is reflected in interest expense.

The following table summarizes the Company's assets and liabilities which are accounted for using the fair value option:

	December 31,	
	2011	2010
Fixed maturities	\$ 147,779	\$ 124,969
Equity securities	87,403	94,204
Other investments (par: \$138,062 and \$0)	131,721	
Investments accounted for using the fair value option	366,903	219,173
Securities sold but not yet purchased(1)	(27,178)	(41,143)
TALF investments	387,702	402,449
TALF borrowings	(310,486)	(325,770)
Net assets accounted for using the fair value option	\$ 416,941	\$ 254,709

- 
- (1) Represents the Company's obligations to deliver securities that it did not own at the time of sale. Such amounts are included in "other liabilities" on the Company's consolidated balance sheets.

Table of Contents

## 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:

	Year Ended December 31,		
	2011	2010	2009
Fixed maturities	\$ 331,469	\$ 378,682	\$ 404,861
Equity securities	7,332	1,363	
Short-term investments	2,174	1,337	1,897
Other(1)	22,006	3,882	4,413
Gross investment income	362,981	385,264	411,171
Investment expenses	(24,783)	(20,386)	(21,040)
Net investment income	\$ 338,198	\$ 364,878	\$ 390,131

- (1) Includes interest on term loan investments (included in "investments accounted for using the fair value option"), dividends on investment funds and other items.

*Net Realized Gains (Losses)*

Net realized gains (losses) were as follows, excluding the other-than-temporary impairment provisions discussed above:

	Year Ended December 31,		
	2011	2010	2009
Available for sale securities:			
Gross gains on investment sales	\$ 271,818	\$ 288,898	\$ 362,581
Gross losses on investment sales	(132,166)	(103,327)	(236,838)
Change in fair value of assets and liabilities accounted for using the fair value option:			
Fixed maturities	(12,164)	(489)	14,849
Equity securities	(31,519)	14,217	(358)
Other investments	(3,272)		
TALF investments	1,412	10,176	3,073
TALF borrowings	(58)	(735)	1,175
Derivative instruments(1)	19,851	42,023	(464)
Other	(3,256)	1,988	(436)
Net realized gains	\$ 110,646	\$ 252,751	\$ 143,582

- (1) See Note 9 for information on the Company's derivative instruments.

*Other-Than-Temporary Impairments*



The Company performs quarterly reviews of its available for sale investments in order to determine whether declines in fair value below the amortized cost basis were considered

Table of Contents

## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 7. Investment Information (Continued)

other-than-temporary in accordance with applicable guidance. The following table details the OTTI recognized in earnings by asset class:

	Year Ended December 31,		
	2011	2010	2009
Fixed maturities:			
Mortgage backed securities	\$ 5,023	\$ 6,096	\$ 17,607
Asset backed securities	10	2,166	26,862
Corporate bonds	931	1,406	3,824
Total	5,964	9,668	48,293
Investment of funds received under securities lending agreements	1,623	1,653	3,488
Other investments			14,352
Equity securities	1,475		
Total OTTI recognized in earnings	\$ 9,062	\$ 11,321	\$ 66,133

A description of the methodology and significant inputs used to measure the amount of OTTI in 2011 is as follows:

**Mortgage backed securities** the Company utilized underlying data provided by asset managers, cash flow projections and additional information from credit agencies in order to determine an expected recovery value for each security. The analysis includes expected cash flow projections under base case and stress case scenarios which modify the expected default expectations and loss severities and slow down prepayment assumptions. The significant inputs in the models include the expected default rates, delinquency rates and foreclosure costs. The expected recovery values were reduced on a number of mortgage backed securities, primarily as a result of increases in expected default expectations and foreclosure costs. The amortized cost basis of the mortgage backed securities were adjusted down, if required, to the expected recovery value calculated in the OTTI review process;

**Investment of funds received under securities lending agreements** the Company utilized analysis from its securities lending program manager in order to determine an expected recovery value for certain collateral backing the Company's securities lending program which was invested in sub-prime securities. The analysis provided expected cash flow projections for the securities using similar criteria as described in the mortgage backed securities section above. The amortized cost basis of the investment of funds received under securities lending agreements was adjusted down, if required, to the expected recovery value calculated in the OTTI review process;

**Corporate bonds** the Company reviewed the business prospects, credit ratings, estimated loss given default factors, foreign currency impacts and information received from asset managers and rating agencies for certain corporate bonds. The amortized cost basis of the corporate bonds were adjusted down, if required, to the expected recovery value calculated in the OTTI review process;

Table of Contents

## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

**7. Investment Information (Continued)**

Equity securities the Company utilized information received from asset managers on common stocks, including the business prospects, recent events, industry and market data and other factors. For certain equities which were in an unrealized loss position and where the Company determined that it did not have the intent or ability to hold such securities for a reasonable period of time by which the fair value of the securities would increase and the Company would recover its cost, the cost basis of such securities was adjusted down accordingly.

The Company believes that the \$29.1 million of OTTI included in accumulated other comprehensive income at December 31, 2011 on the securities which were considered by the Company to be impaired was due to market and sector-related factors (*i.e.*, not credit losses). At December 31, 2011, the Company did not intend to sell these securities, or any other securities which were in an unrealized loss position, and determined that it is more likely than not that the Company will not be required to sell such securities before recovery of their cost basis.

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

	Year Ended December 31,		
	2011	2010	2009
Balance at start of year	\$ 86,040	\$ 84,147	\$ 35,474
Credit loss impairments recognized on securities not previously impaired	3,736	2,501	16,221
Credit loss impairments recognized on securities previously impaired	3,850	8,820	35,530
Reductions for increases in cash flows expected to be collected that are recognized over the remaining life of the security			
Reductions for securities sold during the period	(27,081)	(9,428)	(3,078)
Balance at end of year	\$ 66,545	\$ 86,040	\$ 84,147

***Restricted Assets***

The Company is required to maintain assets on deposit, which primarily consist of fixed maturities, with various regulatory authorities to support its insurance and reinsurance operations. The Company's insurance and reinsurance subsidiaries maintain assets in trust accounts as collateral for insurance and reinsurance transactions with affiliated companies and also have investments in segregated portfolios primarily to provide collateral or guarantees for letters of credit to third parties. See Note 14,

Table of Contents**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****7. Investment Information (Continued)**

"Commitments and Contingencies Letter of Credit and Revolving Credit Facilities," for further details. The following table details the value of the Company's restricted assets:

	December 31, 2011	December 31, 2010
Assets used for collateral or guarantees:		
Affiliated transactions	\$ 4,321,535	\$ 4,491,649
Third party agreements	757,669	948,020
Deposits with U.S. regulatory authorities	288,458	263,077
Deposits with non-U.S. regulatory authorities	169,733	122,341
Trust funds	60,558	48,140
<b>Total restricted assets</b>	<b>\$ 5,597,953</b>	<b>\$ 5,873,227</b>

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

The Company recorded equity in net loss related to investment funds accounted for using the equity method of \$9.6 million for 2011, compared to equity in net income of \$61.4 million and \$167.8 million for 2010 and 2009, respectively. Due to the ownership structure of these investment funds (*e.g.*, limited partnership), which invest in fixed maturity securities, the Company uses the equity method where it does not have a controlling interest and is not the primary beneficiary. 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 fair value of the underlying securities in the funds). Such investments are generally recorded on a one month lag with some investments reported for on a three month lag based on the availability of reports from the investment funds. Changes in the carrying value of such investments are recorded in net income as "Equity in net income (loss) of investment funds accounted for using the equity method" while changes in the carrying value of the Company's other fixed income investments are recorded as an unrealized gain or loss component of accumulated other comprehensive income in shareholders' equity. As such, fluctuations in the carrying value of the investment funds accounted for using the equity method may increase the volatility of the Company's reported results of operations. Investment funds accounted for using the equity method (excluding the Company's investment in Aeolus LP) totaled \$345.3 million at December 31, 2011, compared to \$434.6 million at December 31, 2010.

**8. Fair Value**

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

Table of Contents

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**8. Fair Value (Continued)**

The levels in the hierarchy are defined as follows:

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

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

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

The Company determines the existence of an active market based on its judgment as to whether transactions for the financial instrument occur in such market with sufficient frequency and volume to provide reliable pricing information. The independent pricing sources obtain market quotations and actual transaction prices for securities that have quoted prices in active markets. The Company uses quoted values and other data provided by nationally recognized independent pricing sources as inputs into its process for determining fair values of its fixed maturity investments. To validate the techniques or models used by pricing sources, the Company's review process includes, but is not limited to: (i) quantitative analysis (*e.g.*, comparing the quarterly return for each managed portfolio to its target benchmark, with significant differences identified and investigated); (ii) a review of the average number of prices obtained in the pricing process and the range of resulting fair values; (iii) initial and ongoing evaluation of methodologies used by outside parties to calculate fair value including a review of deep dive reports on selected securities which indicated the use of observable inputs in the pricing process; (iv) comparing the fair value estimates to its knowledge of the current market; (v) a comparison of the pricing services' fair values to other pricing services' fair values for the same investments; and (vi) back-testing, which includes randomly selecting purchased or sold securities and comparing the executed prices to the fair value estimates from the pricing service. At December 31, 2011, the Company obtained an average of 2.8 quotes or prices per investment, compared to 2.7 quotes or prices at December 31, 2010. Where multiple quotes or prices were obtained, a price source hierarchy was maintained in order to determine which price source would be used (*i.e.*, a price obtained from a pricing service with more seniority in the hierarchy will be used over a less senior one in all cases). The hierarchy prioritizes pricing services based on availability and reliability and assigns the highest priority to index providers. Based on the above review, the Company will challenge any prices for a security or portfolio which are considered not to be representative of fair value. At December 31, 2011, the Company adjusted certain prices (primarily on structured securities) obtained from the pricing services and substituted alternate prices (primarily broker-dealer quotes) for such securities. Such adjustments did not have a material impact on the overall fair value of the Company's investment portfolio at December 31, 2011.

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

Table of Contents

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**8. Fair Value (Continued)**

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 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 values are unavailable from these independent pricing sources, quotes are obtained directly from broker-dealers who are active in the corresponding markets. Such quotes are subject to the validation procedures noted above. Of the \$11.97 billion of financial assets and liabilities measured at fair value at December 31, 2011, approximately \$1.19 billion, or 9.9%, were priced using non-binding broker-dealer quotes. Of the \$11.52 billion of financial assets and liabilities measured at fair value at December 31, 2010, approximately \$1.81 billion, or 15.7%, were priced using non-binding broker-dealer quotes.

The Company reviews its securities measured at fair value and discusses the proper classification of such investments with investment advisors and others. Upon adoption of the accounting guidance regarding fair value measurement, the Company determined that Level 1 securities included highly liquid, recent issue U.S. Treasuries and certain of its short-term investments held in highly liquid money market-type funds where it believes that quoted prices are available in an active market. On January 1, 2010, the Company determined that all U.S. Treasuries would be classified as Level 1 securities due to observed levels of trading activity, the high number of strongly correlated pricing quotes received on U.S. Treasuries and other factors. Such determination resulted in \$1.09 billion of U.S. Treasuries previously classified as Level 2 being moved into Level 1. In addition, the Company determined that exchange-traded equity securities would be included in Level 1.

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

The Company determined that certain 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 and certain other corporate bonds. In addition, the Company determined that certain 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. The Company reviews the classification of its investments each quarter. No securities were reclassified between Level 2 and Level 3 during the periods presented.

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 collateral received and reinvested and included the fixed maturities and short-term investments pledged under securities lending agreements, at fair value.

Table of Contents

## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

**8. Fair Value (Continued)**

The following table presents the Company's financial assets and liabilities measured at fair value by level at December 31, 2011:

	Estimated Fair Value	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)
<i>Assets measured at fair value:</i>				
Available for sale securities:				
Fixed maturities and fixed maturities pledged under securities lending agreements(1):				
Corporate bonds	\$ 2,596,118	\$	\$ 2,504,027	\$ 92,091
Mortgage backed securities	1,592,762		1,592,762	
Municipal bonds	1,430,565		1,430,565	
Commercial mortgage backed securities	1,046,326		1,046,326	
U.S. government and government agencies	1,451,993	1,451,993		
Non-U.S. government securities	737,477		737,477	
Asset backed securities	576,757		576,757	
<b>Total</b>	<b>9,431,998</b>	<b>1,451,993</b>	<b>7,887,914</b>	<b>92,091</b>
Equity securities	299,584	299,528	56	
Other investments	238,111		232,987	5,124
Short-term investments	904,219	837,371	66,848	
Fair value option:				
Investments accounted for using the fair value option:				
Corporate bonds	122,935		122,935	
Non-U.S. government bonds	24,844		24,844	
Equity securities	87,403	87,403		
Other investments	131,721		131,721	
<b>Total</b>	<b>366,903</b>	<b>87,403</b>	<b>279,500</b>	
TALF investments	387,702		387,702	
<b>Total assets measured at fair value</b>	<b>\$ 11,628,517</b>	<b>\$ 2,676,295</b>	<b>\$ 8,855,007</b>	<b>\$ 97,215</b>
<i>Liabilities measured at fair value:</i>				
Fair value option:				
TALF borrowings	\$ 310,486	\$	\$ 310,486	\$
Securities sold but not yet purchased(2)	27,178	27,178		
<b>Total liabilities measured at fair value</b>	<b>\$ 337,664</b>	<b>\$ 27,178</b>	<b>\$ 310,486</b>	<b>\$</b>

(1)

In securities lending transactions, the Company receives collateral in excess of the fair value of the fixed maturities and short-term investments pledged. For purposes of this table, the Company has excluded the collateral received and reinvested and included the fixed maturities and short-term investments pledged.

(2)

Represents the Company's obligation to deliver securities that it did not own at the time of sale. Such amounts are included in "other liabilities" on the Company's consolidated balance sheets.



Table of Contents

## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

**8. Fair Value (Continued)**

The following table presents the Company's financial assets and liabilities measured at fair value by level at December 31, 2010:

	Estimated Fair Value	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)
<i>Assets measured at fair value:</i>				
Available for sale securities:				
Fixed maturities and fixed maturities pledged under securities lending agreements(1):				
Corporate bonds	\$ 2,714,375	\$	\$ 2,560,866	\$ 153,509
Mortgage backed securities	1,806,813		1,806,813	
Municipal bonds	1,182,100		1,182,100	
Commercial mortgage backed securities	1,167,299		1,167,299	
U.S. government and government agencies	872,149	872,149		
Non-U.S. government securities	732,666		732,666	
Asset backed securities	558,032		558,032	
<b>Total</b>	<b>9,033,434</b>	<b>872,149</b>	<b>8,007,776</b>	<b>153,509</b>
Equity securities	310,194	297,623	12,571	
Other investments	275,538		267,680	7,858
Short-term investments	915,841	859,042	56,799	
Fair value option:				
Investments accounted for using the fair value option:				
Corporate bonds	124,969		124,969	
Non-U.S. government bonds				
Equity securities	94,204	94,204		
Other investments				
<b>Total</b>	<b>219,173</b>	<b>94,204</b>	<b>124,969</b>	
TALF investments	402,449		402,449	
<b>Total assets measured at fair value</b>	<b>\$ 11,156,629</b>	<b>\$ 2,123,018</b>	<b>\$ 8,872,244</b>	<b>\$ 161,367</b>
<i>Liabilities measured at fair value:</i>				
Fair value option:				
TALF borrowings	\$ 325,770	\$	\$ 325,770	\$
Securities sold but not yet purchased(2)	41,143	41,143		
<b>Total liabilities measured at fair value</b>	<b>\$ 366,913</b>	<b>\$ 41,143</b>	<b>\$ 325,770</b>	<b>\$</b>

(1)

In securities lending transactions, the Company receives collateral in excess of the fair value of the fixed maturities and short-term investments pledged. For purposes of this table, the Company has excluded the collateral received and reinvested and included the fixed maturities and short-term investments pledged.

(2)

Represents the Company's obligation to deliver securities that it did not own at the time of sale. Such amounts are included in "other liabilities" on the Company's consolidated balance sheets.

Table of Contents

## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

**8. Fair Value (Continued)**

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 2011, 2010 and 2009:

	Fair Value Measurements Using: Significant Unobservable Inputs (Level 3)		
	Corporate Bonds	Other Investments	Total
<b>Year Ended December 31, 2011</b>			
Balance at beginning of year	\$ 153,509	\$ 7,858	\$ 161,367
Total gains or (losses) (realized/unrealized)			
Included in earnings(1)	2,276	1,709	3,985
Included in other comprehensive income	(4,515)	(3,777)	(8,292)
Purchases, issuances and settlements			
Purchases			
Issuances			
Sales	(49,947)	(666)	(50,613)
Settlements	(9,232)		(9,232)
Transfers in and/or out of Level 3			
Balance at end of year	\$ 92,091	\$ 5,124	\$ 97,215
<b>Year Ended December 31, 2010</b>			
Balance at beginning of year	\$ 178,385	\$ 49,668	\$ 228,053
Total gains or (losses) (realized/unrealized)			
Included in earnings(1)	11,687	3,250	14,937
Included in other comprehensive income	(8,744)	(694)	(9,438)
Purchases, issuances and settlements			
Purchases			
Issuances			
Sales		(42,157)	(42,157)
Settlements	(27,819)	(2,209)	(30,028)
Transfers in and/or out of Level 3			
Balance at end of year	\$ 153,509	\$ 7,858	\$ 161,367
<b>Year Ended December 31, 2009</b>			
Balance at beginning of year	\$ 142,571	\$ 40,339	\$ 182,910
Total gains or (losses) (realized/unrealized)			
Included in earnings(1)	2,395	(14,117)	(11,722)
Included in other comprehensive income	52,698	24,075	76,773
Purchases, issuances and settlements			
Purchases			
Issuances			
Sales		(629)	(629)
Settlements	(19,279)		(19,279)
Transfers in and/or out of Level 3			
Balance at end of year	\$ 178,385	\$ 49,668	\$ 228,053

(1)

Gains or losses on corporate bonds and other investments were recorded in net realized gains (losses).

Table of Contents

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**8. Fair Value (Continued)**

The amount of total gains for 2011 included in earnings attributable to the change in unrealized gains or losses relating to assets still held at December 31, 2011 was \$0.6 million. The amount of total gains for 2010 included in earnings attributable to the change in unrealized gains or losses relating to assets still held at December 31, 2010 was \$14.9 million. The amount of total losses for 2009 included in earnings attributable to the change in unrealized gains or losses relating to assets still held at December 31, 2009 was \$2.6 million.

*Fair Value Measurements on a Non-Recurring Basis*

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

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

*Goodwill and Intangible Assets.* The goodwill and intangible assets of acquired businesses, which totaled \$22.3 million and \$23.2 million, respectively, at December 31, 2011 and 2010, 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 tests goodwill and intangible assets for impairment whenever events or changes in circumstances indicate the carrying amount may not be recoverable, but at least annually for goodwill. When the Company determines goodwill and intangible assets may be impaired, the Company uses techniques including discounted expected future cash flows, to measure fair value.

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

**9. Derivative Instruments**

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

Table of Contents

## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

**9. Derivative Instruments (Continued)**

In addition, the Company purchases to-be-announced mortgage backed securities ("TBAs") as part of its investment strategy. TBAs represent commitments to purchase a future issuance of agency mortgage backed securities. For the period between purchase of a TBA and issuance of the underlying security, the Company's position is accounted for as a derivative. The Company purchases TBAs in both long and short positions to enhance investment performance and as part of its overall investment strategy. The Company did not hold any derivatives which were designated as hedging instruments at December 31, 2011 or December 31, 2010.

The following table summarizes information on the fair values and notional values of the Company's derivative instruments. The fair value of TBAs is included in fixed maturities while the fair value of all other derivatives is included in other investments in the consolidated balance sheets.

	Asset Derivatives		Liability Derivatives	
	Estimated Fair Value	Notional Value	Estimated Fair Value	Notional Value
<b>At December 31, 2011</b>				
Futures contracts	\$ 771	\$ 364,035	\$ (145)	\$ 16,275
Foreign currency forward contracts	11,937	352,992	(6,558)	253,733
TBAs	23,661	23,000	(2,178)	2,000
Other	4,005	187,613	(2,048)	309,931
Total	\$ 40,374		\$ (10,929)	
<b>At December 31, 2010</b>				
Futures contracts	\$ 1,968	\$ 512,292	\$ (62)	\$ 23,544
Foreign currency forward contracts	4,093	119,969	(13,582)	277,908
TBAs	125,397	121,100		
Other	14,236	239,552	(4,595)	268,597
Total	\$ 145,694		\$ (18,239)	

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

Derivatives not designated as hedging instruments	Year Ended December 31,		
	2011	2010	2009
Futures contracts	\$ 2,293	\$ 36,675	\$ 3,791
Foreign currency forward contracts	895	(5,266)	(5,798)
TBAs	12,329	6,311	1,154
Other	4,334	4,303	389
Total	\$ 19,851	\$ 42,023	\$ (464)

Table of Contents

## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

**10. Other Comprehensive Income (Loss)**

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

	Before Tax Amount	Tax Expense (Benefit)	Net of Tax Amount
<b>Year Ended December 31, 2011</b>			
Unrealized appreciation (decline) in value of investments:			
Unrealized holding gains arising during period	\$ 112,834	\$ 18,987	\$ 93,847
Portion of other-than-temporary impairment losses recognized in other comprehensive income (loss)	(4,788)		(4,788)
Less reclassification of net realized gains included in net income	130,690	2,340	128,350
Foreign currency translation adjustments	(12,461)	(1,172)	(11,289)
Other comprehensive income (loss)	\$ (35,105)	\$ 15,475	\$ (50,580)
<b>Year Ended December 31, 2010</b>			
Unrealized appreciation in value of investments:			
Unrealized holding gains arising during period	\$ 242,515	\$ 5,779	\$ 236,736
Portion of other-than-temporary impairment losses recognized in other comprehensive income	(1,752)		(1,752)
Less reclassification of net realized gains included in net income	175,628	5,697	169,931
Foreign currency translation adjustments	2,312	1,388	924
Other comprehensive income	\$ 67,447	\$ 1,470	\$ 65,977
<b>Year Ended December 31, 2009</b>			
Unrealized appreciation in value of investments:			
Unrealized holding gains arising during period	\$ 585,278	\$ 11,094	\$ 574,184
Portion of other-than-temporary impairment losses recognized in other comprehensive income	(81,376)		(81,376)
Less reclassification of net realized gains included in net income	54,655	6,077	48,578
Foreign currency translation adjustments	13,555	2,196	11,359
Other comprehensive income	\$ 462,802	\$ 7,213	\$ 455,589

Table of Contents**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****11. Earnings Per Common Share**

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 Shares, including vested restricted shares, outstanding for the periods. The following table sets forth the computation of basic and diluted earnings per common share:

	Year Ended December 31,		
	2011	2010	2009
<b>Numerator:</b>			
Net income	\$ 436,358	\$ 842,588	\$ 876,945
Preferred dividends	(25,844)	(25,844)	(25,844)
Net income available to common shareholders	\$ 410,514	\$ 816,744	\$ 851,101
<b>Denominator:</b>			
Weighted average common shares outstanding basic	132,221,970	150,545,148	178,681,083
Effect of dilutive common share equivalents:			
Nonvested restricted shares	940,612	1,044,444	929,013
Stock options(1)	5,127,120	5,975,565	6,171,300
Weighted average common shares and common share equivalents outstanding diluted	138,289,702	157,565,157	185,781,396
<b>Earnings per common share:</b>			
Basic	\$ 3.10	\$ 5.43	\$ 4.76
Diluted	\$ 2.97	\$ 5.18	\$ 4.58

(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 2011, 2010 and 2009, the number of stock options excluded were 462,020, 577,155 and 2,562,555, respectively.

**12. 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 31, 2035. 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





Table of Contents**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****12. Income Taxes (Continued)**

connected with the conduct of a trade or business within the U.S. and is not exempt from U.S. tax under an applicable income tax treaty with the U.S. 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 include the United States, United Kingdom, Ireland, Canada, Switzerland and Denmark.

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

	Year Ended December 31,		
	2011	2010	2009
<b>Current (benefit) expense:</b>			
United States	\$ (214)	\$ 11,300	\$ 20,985
Non-U.S.	8,037	7,993	2,627
	7,823	19,293	23,612
<b>Deferred (benefit) expense:</b>			
United States	(11,108)	(12,796)	(1,485)
Non-U.S.	(6,061)	1,371	(1,419)
	(17,169)	(11,425)	(2,904)
Income tax (benefit) expense	\$ (9,346)	\$ 7,868	\$ 20,708

The Company's income or loss before income taxes was earned in the following jurisdictions:

	Year Ended December 31,		
	2011	2010	2009
<b>Income (Loss) Before Income Taxes:</b>			
Bermuda	\$ 454,042	\$ 823,005	\$ 810,909
United States	(17,338)	23,202	82,306
Other	(9,692)	4,249	4,438
Total	\$ 427,012	\$ 850,456	\$ 897,653

The expected tax provision computed on pre-tax income or loss at the weighted average tax rate has been calculated as the sum of the pre-tax income in each jurisdiction multiplied by that jurisdiction's applicable statutory tax rate. The statutory tax rates by jurisdiction were as

Table of Contents

## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

**12. Income Taxes (Continued)**

follows: Bermuda (0.0%), United States (35.0%), United Kingdom (26.5%), Ireland (12.5%), Denmark (25.0%) and the Netherlands (23.3%).

A reconciliation of the difference between the provision for income taxes and the expected tax provision at the weighted average tax rate follows:

	Year Ended December 31,		
	2011	2010	2009
Expected income tax (benefit) expense computed on pre-tax income at weighted average income tax rate	\$ (4,941)	\$ 10,155	\$ 31,162
Addition (reduction) in income tax expense (benefit) resulting from:			
Tax-exempt investment income	(8,885)	(8,281)	(8,911)
Meals and entertainment	633	657	462
State taxes, net of U.S. federal tax benefit	309	402	506
U.S. operations' foreign taxes, net of U.S. federal tax benefit	(402)	(253)	(983)
Prior year adjustment	(91)	677	(1,992)
Non deductible foreign exchange losses	978	1,067	
Changes in applicable tax rate	217	1,469	
Dividend withholding taxes	2,237	718	
Other	599	1,257	464
Income tax (benefit) expense	\$ (9,346)	\$ 7,868	\$ 20,708

The Company has net operating loss carryforwards in its U.S. operating subsidiaries totaling \$5.0 million at December 31, 2011. 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 \$10.4 million, of which \$7.4 million relates to the Company's U.S. operations and will expire between 2018 and 2021. The remaining \$3.0 million of foreign tax credits relate to the Company's Lloyd's operations and can be carried forward indefinitely. Additionally, the Company has an alternative minimum tax ("AMT") credit carryforward in the amount of \$13.1 million which can be carried forward indefinitely.

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 is limited to approximately \$2.4 million per year in accordance with Section 382 of the Internal Revenue Code of 1986 as amended (the "Code").

One of the Company's U.K. subsidiaries has a net operating loss carryforward of \$0.3 million which can be carried forward without expiration.

Table of Contents

## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

**12. 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:

	December 31,	
	2011	2010
Deferred income tax assets:		
Net operating loss	\$ 1,831	\$ 2,387
Deferred ceding commission		6,697
AMT credit carryforward	13,127	6,642
Discounting of net loss reserves	45,329	37,955
Net unearned premium reserve	26,048	13,563
Compensation liabilities	21,357	22,396
Foreign tax credit carryforward	10,374	6,238
Interest expense	1,506	950
Other, net	11,377	9,784
<b>Total deferred tax assets</b>	<b>130,949</b>	<b>106,612</b>
Deferred income tax liabilities:		
Depreciation and amortization	(5,674)	(6,211)
Deferred acquisition costs, net	(13,447)	(2,850)
Deposit accounting liability	(4,922)	(4,702)
Net unrealized foreign exchange gains	(1,850)	(3,021)
Net unrealized appreciation of investments	(35,117)	(21,102)
Other, net	(2,482)	(2,748)
<b>Total deferred tax liabilities</b>	<b>(63,492)</b>	<b>(40,634)</b>
<b>Net deferred income tax asset</b>	<b>\$ 67,457</b>	<b>\$ 65,978</b>

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

As of December 31, 2011 and 2010, the Company's total unrecognized tax benefits, including interest and penalties, were nil.

The Company or its subsidiaries or branches files income tax returns in the U.S. federal jurisdiction and various state, local and foreign jurisdictions. With few exceptions, the Company is no longer subject to U.S. federal, state, local, or non-U.S. income tax examination for years before 2008.

Table of Contents

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**12. Income Taxes (Continued)**

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, 2011 and 2010, the Company's valuation allowance was nil.

During 2011, 2010 and 2009, the Company paid \$1.9 million, \$7.2 million and \$31.4 million for income taxes, net of recoveries, respectively. As of December 31, 2011, the Company's current income tax recoverable (included in "Other assets") was \$9.9 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 2011, 2010 and 2009, the Company incurred approximately \$9.3 million, \$11.5 million and \$12.8 million, respectively, of federal excise taxes. Such amounts are reflected as acquisition expenses in the Company's consolidated statements of income.

**13. Transactions with Related Parties**

The Company made an investment of \$50.0 million in Aeolus LP ("Aeolus") in 2006. Aeolus 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. The Company's investment in Aeolus, included in "Investments accounted for using the equity method" on the balance sheet, represents an approximate 4% share in Aeolus and is accounted for using the equity method. The Company made its investment in Aeolus on the same economic terms as a fund affiliated with Warburg Pincus. During 2010, all remaining shares of the Company owned by Warburg Pincus were distributed. In addition, one of the founders of Aeolus is Peter Appel, former President and CEO and a former director of the Company. During 2011, 2010 and 2009, the Company received distributions of \$33.2 million, \$20.0 million and \$14.0 million, respectively, from Aeolus. See Note 22, "Subsequent Events" for further information on the Company's investment in Aeolus.

**14. Commitments and Contingencies**

***Concentrations of Credit Risk***

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

The areas where significant concentrations of credit risk may exist include unpaid losses and loss adjustment expenses recoverable, prepaid reinsurance premiums and paid losses and loss adjustment expenses recoverable net of reinsurance balances payable (collectively, "reinsurance recoverables"), investments and cash and cash equivalent balances. The Company's reinsurance recoverables at December 31, 2011 and 2010 amounted to \$1.98 billion and \$1.89 billion, respectively, and primarily

Table of Contents

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**14. Commitments and Contingencies (Continued)**

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 2011, approximately 19.4% and 14.2% of the Company's consolidated gross written premiums were generated from or placed by Aon Corporation and its subsidiaries and Marsh & McLennan Companies and its subsidiaries, respectively, compared to approximately 18.8% and 15.1% for 2010, respectively, and 21.4% and 15.6% for 2009, respectively. No other broker and no one insured or reinsured accounted for more than 10% of gross premiums written for 2011, 2010 and 2009.

The Company's available for sale investment portfolio is managed in accordance with guidelines that have been tailored to meet specific investment strategies, including standards of diversification, which limit the allowable holdings of any single issue. There were no investments in any entity in excess of 10% of the Company's shareholders' equity at December 31, 2011 other than investments issued or guaranteed by the United States government or its agencies.

***Dividends for Preferred Shares***

On October 31, 2011, the Company's board of directors declared dividends with respect to the \$200.0 million principal amount of 8.0% series A non-cumulative preferred shares outstanding and \$125.0 million principal amount of 7.875% series B non-cumulative preferred shares outstanding (together, "Preferred Shares"). All such dividends will be payable out of lawfully available funds for the payment of dividends under Bermuda law on February 15, 2012 to holders of record of the Preferred Shares as of February 1, 2012, unless determined otherwise by the board of directors or the executive committee of the board of directors on or prior to the applicable effective date. At December 31, 2011, the Company had declared an aggregate of \$3.3 million of dividends to be paid to the holders of the Preferred Shares. See Note 16, "Shareholders' Equity Preferred Shares," for additional information.

***Investment Commitments***

The Company's investment commitments, which are primarily related to investment funds accounted for using the equity method, were approximately \$274.7 million at December 31, 2011.

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

As of December 31, 2011, the Company had a \$300.0 million unsecured revolving loan and letter of credit facility and a \$500.0 million secured letter of credit facility (the "Credit Agreement"). Under the terms of the Credit Agreement, Arch Re U.S. and Arch Re Bermuda are limited to issuing an aggregate of \$100.0 million of unsecured letters of credit as part of the \$300.0 million unsecured revolving loan. Borrowings of revolving loans may be made by ACGL 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. The Credit Agreement

Table of Contents

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**14. Commitments and Contingencies (Continued)**

and related documents are structured such that each party that requests a letter of credit or borrowing does so only for itself and for only its own obligations. Issuance of letters of credit and borrowings under the Credit Agreement are subject to the Company's compliance with certain covenants and conditions, including absence of a material adverse change. These covenants require, among other things, that the Company maintain a debt to total capital ratio of not greater than 0.35 to 1 and consolidated tangible net worth in excess of \$3.09 billion plus 25% of future aggregate net income for each quarterly period (not including any future net losses) beginning after June 30, 2011 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, 2011. The Credit Agreement expires on August 18, 2014.

In addition, the Company has access to secured letter of credit facilities for up to a total of \$80.0 million, which are available on a limited basis and for limited purposes (together with the secured portion of the Credit Agreement and these letter of credit facilities, the "LOC Facilities"). The principal purpose of the LOC Facilities is to issue, as required, evergreen standby letters of credit in favor of primary insurance or reinsurance counterparties with which the Company has entered into reinsurance arrangements to ensure that such counterparties are permitted to take credit for reinsurance obtained from 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, 2011. At such date, the Company had approximately \$515.7 million in outstanding letters of credit under the LOC Facilities, which were secured by investments with a fair value of \$607.7 million, and had \$100.0 million of borrowings outstanding under the Credit Agreement.

***TALF Program***

TALF provides secured financing for asset-backed securities backed by certain types of consumer and small business loans and for legacy commercial mortgage-backed securities. TALF financing is non-recourse to the Company, except in certain limited instances, and is collateralized by the purchased securities and provides financing for the purchase price of the securities, less a 'haircut' that varies based on the type of collateral. The Company can deliver the collateralized securities to a special purpose vehicle created by the FRBNY in full defeasance of the borrowings. As of December 31, 2011, the Company had \$387.7 million of securities under TALF, consisting of 19 individual TALF investments, which are reflected as "TALF investments, at fair value" and \$310.5 million of secured financing from the FRBNY which is reflected as "TALF borrowings, at fair value." The maturity dates for the TALF borrowings range from July 2012 to March 2015, with interest rates that range from

Table of Contents**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****14. Commitments and Contingencies (Continued)**

approximately 1.2% to 3.9% based on either variable or fixed interest rates depending on the related TALF investments. See Note 22, "Subsequent Events," for further information.

*Leases and Purchase Obligations*

At December 31, 2011, the future minimum rental commitments, exclusive of escalation clauses and maintenance costs and net of rental income, for all of the Company's operating leases are as follows:

2012	\$ 16,189
2013	15,072
2014	13,774
2015	12,303
2016	11,827
Thereafter	52,445
<b>Total</b>	<b>\$ 121,610</b>

All of these leases are for the rental of office space, with expiration terms that range from 2012 to 2024. Rental expense, net of income from subleases, was approximately \$16.4 million, \$15.0 million and \$16.9 million for 2011, 2010 and 2009, respectively.

The Company has also entered into certain agreements which commit the Company to purchase goods or services, primarily related to software and computerized systems. Such purchase obligations were approximately \$17.0 million and 30.1 million at December 31, 2011 and 2010, respectively.

*Employment and Other Arrangements*

At December 31, 2011, the Company has entered into employment agreements with certain of its executive officers for periods extending up to November 2013. 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.

**15. 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. 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. The fair value of the Senior Notes at December 31, 2011 and 2010 was \$353.8 million and \$310.9 million, respectively.

During 2011, 2010 and 2009, the Company made interest payments of \$30.5 million, \$29.9 million and \$24.6 million, respectively, related to its Senior Notes and other financing arrangements discussed in Note 14.



Table of Contents

## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 16. Shareholders' Equity

*Authorized and Issued*

The authorized share capital of the Company consists of 600 million Common Shares, par value of \$0.0033 per share, and 50 million Preferred Shares, par value of \$0.01 per share.

*Common Shares*

The following table presents a roll-forward of changes in the Company's issued and outstanding Common Shares:

	Year Ended December 31,		
	2011	2010	2009
<b>Common Shares:</b>			
Shares issued and outstanding, beginning of year	160,073,616	164,285,034	181,535,922
Shares issued(1)	3,592,713	3,711,228	1,583,859
Restricted shares issued, net of cancellations	970,009	1,107,183	1,558,269
Shares repurchased and retired(2)		(9,029,829)	(20,393,016)
Shares issued, end of year	164,636,338	160,073,616	164,285,034
Common shares in treasury, end of year	(30,277,993)	(20,441,391)	
Shares issued and outstanding, end of year	134,358,345	139,632,225	164,285,034

- (1) Includes shares issued from the exercise of stock options and stock appreciation rights, and 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 in ACGL's common shares through a share repurchase program. Authorizations have consisted of a \$1.0 billion authorization in February 2007, a \$500.0 million authorization in May 2008, a \$1.0 billion authorization in November 2009 and a \$1.0 billion authorization in February 2011. Since the inception of the share repurchase program through December 31, 2011, ACGL has repurchased approximately 104.8 million common shares for an aggregate purchase price of \$2.56 billion. During 2011, ACGL repurchased 9.6 million common shares for an aggregate purchase price of \$288.0 million, compared to 29.2 million common shares for an aggregate purchase price of \$761.9 million during 2010 and 20.1 million common shares for an aggregate purchase price of \$458.4 during 2009. Weighted average shares outstanding for 2011 were reduced by 103.2 million shares, compared to 81.0 million shares for 2010 and 48.7 million shares for 2009. At December 31, 2011, approximately \$942.0 million of share repurchases were available under the program. Repurchases under the program may be effected from time to time in open market or privately negotiated transactions through December 2012. 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.

Table of Contents

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**16. Shareholders' Equity (Continued)**

*Treasury Shares*

In May 2010, ACGL's shareholders approved amendments to the bye-laws to permit ACGL to hold its own acquired shares as treasury shares in lieu of cancellation, as determined by ACGL's board of directors. From May 5, 2010 to December 31, 2011, all repurchases of ACGL's common shares in connection with the share repurchase plan noted above and other share-based transactions were held in the treasury under the cost method, and the cost of the common shares acquired is included in 'Common shares held in treasury, at cost.' Prior to May 5, 2010, such acquisitions were reflected as a reduction in additional paid-in capital. At December 31, 2011, the Company held 30.3 million shares for an aggregate cost of \$845.5 million in treasury, at cost.

*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 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. The net proceeds of the offerings were used to support the underwriting activities of ACGL's insurance and reinsurance subsidiaries. Certain executive officers and directors of the Company own less than 1% of the aggregate outstanding Preferred Shares. ACGL has the right to redeem all or a portion of each series of Preferred Shares at a liquidation preference price of \$25.00 per share.

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. The Company paid \$25.8 million in 2011, 2010 and 2009 to holders of the Preferred Shares. See Note 14, "Commitments and Contingencies - Dividends for Preferred Shares," for additional information.

**17. Share-Based Compensation**

*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 2,250,000 common shares are reserved for issuance under the ESPP. At December 31, 2011, approximately 1,337,854 shares remain available for issuance. The ESPP provides for consecutive six-month offering periods (or other periods of not more than 27 months as determined by the

Table of Contents

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**17. Share-Based Compensation (Continued)**

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. The Company recorded \$0.7 million of share-based compensation expense, net of a tax benefit of \$0.3 million, related to the ESPP for 2011, compared to \$0.6 million, net of a tax benefit of \$0.2 million, for 2010 and \$0.5 million, net of a tax benefit of \$0.1 million, for 2009.

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 4,600,581 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) 7,500,000 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, 2011, approximately 3,369,965 shares are available for grant under the 2007 Plan.

In June 2002, following shareholder approval, the Company adopted the 2002 Long Term Incentive and Share Award Plan (the "2002 Plan"). An aggregate of 9,497,490 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

Table of Contents**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****17. Share-Based Compensation (Continued)**

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, 2011, approximately 64,809 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 Option and Stock Appreciation Rights***

The Company generally issues stock options and stock appreciation rights to eligible employees, 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(1) for details related to the Company's accounting for stock options.

The Company recorded after-tax share-based compensation expense of \$5.3 million related to stock option awards for 2011, net of a tax benefit of \$1.5 million, compared to \$6.6 million related to stock option awards for 2010, net of a tax benefit of \$1.4 million, and \$4.8 million related to stock option awards for 2009, net of a tax benefit of \$1.3 million. As of December 31, 2011, there was approximately \$6.3 million of unrecognized compensation cost related to nonvested stock options. Such cost is expected to be recognized over a weighted average period of 1.5 years.

For purposes of determining estimated market value, 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. The expected life assumption (*i.e.*, the estimated period of time between the date an option is granted and the date the option is exercised) was based on an expected term analysis which incorporated the Company's historical share option exercise experience. The Company based its estimate of expected volatility for options granted during 2011 on daily historical trading data of its common shares from September 20, 2002, the date marking the completion of the Company's transition as a worldwide insurance and reinsurance company. For options granted during 2010 and 2009, the Company based its volatility estimate under the same method used for 2011, using the period from September 20, 2002 through the last day of the applicable period.

	<b>Year Ended December 31,</b>		
	<b>2011</b>	<b>2010</b>	<b>2009</b>
Dividend yield	0.0%	0.0%	0.0%
Expected volatility	24.6%	25.5%	26.2%
Risk free interest rate	2.2%	2.7%	2.6%
Expected option life	6.0 years	5.9 years	5.8 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

Table of Contents

## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

**17. Share-Based Compensation (Continued)**

value estimate, in management's opinion, the existing models may not provide a reliable single measure of the fair value of its employee stock options. In addition, management will continue to assess the assumptions and methodologies used to calculate estimated fair value of share-based compensation. Circumstances may change and additional data may become available over time, which could result in changes to these assumptions and methodologies, and which could materially impact the Company's fair value determination.

A summary of option activity under the Company's Long Term Incentive and Share Award Plans during 2011 is presented below:

	Year Ended December 31, 2011	
	Number of Options	Weighted Average Exercise Price
Outstanding, beginning of year	12,251,568	\$ 14.58
Granted	716,182	\$ 33.89
Exercised	(4,230,368)	\$ 8.88
Forfeited or expired	(30,941)	\$ 25.98
Outstanding, end of year	8,706,441	\$ 18.90
Exercisable, end of year	7,116,031	\$ 16.93

The weighted average grant-date fair value of options granted during 2011, 2010 and 2009 was \$9.73, \$7.63 and \$5.89, respectively. The aggregate intrinsic value of options exercised during 2011, 2010 and 2009 was approximately \$106.0 million, \$61.7 million, and \$20.2 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. Shares issued upon exercise of stock options were from the Company's authorized but unissued share capital pool.

The aggregate intrinsic value of the Company's outstanding and exercisable stock options at December 31, 2011 was \$159.6 million and \$144.4 million, respectively. The weighted average remaining contractual life of the Company's outstanding and exercisable stock options at December 31, 2011 was 5.6 years and 4.7 years, respectively. During 2011, the Company received proceeds of \$9.1 million from the exercise of stock options and recognized a tax benefit of \$4.1 million from the exercise of such options.

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

The Company also issues restricted share and unit awards to eligible employees and directors, 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(1) for details related to the Company's accounting for restricted share and unit awards.

The Company recorded \$18.2 million of share-based compensation expense, net of a tax benefit of \$5.0 million, related to restricted share and unit awards for 2011, compared to \$17.3 million, net of a tax benefit of \$5.0 million, for 2010 and \$15.8 million, net of a tax benefit of \$4.5 million, for 2009. As

Table of Contents**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****17. Share-Based Compensation (Continued)**

of December 31, 2011, there were \$19.0 million and \$3.3 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 1.5 years and 1.8 years, respectively.

A summary of restricted share and unit activity under the Company's Long Term Incentive and Share Award Plans for 2011 is presented below:

	<b>Year Ended December 31, 2011</b>	
	<b>Restricted Common Shares</b>	<b>Restricted Unit Awards</b>
<b>Non-Vested Shares:</b>		
Unvested balance, beginning of year	1,377,843	519,534
Granted	675,338	104,203
Vested	(611,848)	(325,312)
Forfeited	(30,641)	
Unvested balance, end of year	1,410,692	298,425
<b>Weighted Average Grant Date Fair Value:</b>		
Unvested balance, beginning of year	\$ 22.45	
Granted	\$ 33.86	
Vested	\$ 22.42	
Forfeited	\$ 25.90	
Unvested balance, end of year	\$ 27.85	

During 2011, 2010 and 2009, the Company granted an aggregate of 779,541, 918,207 and 1,140,369 restricted share and restricted unit awards, respectively, with weighted average grant date fair values of \$33.82, \$25.05 and \$19.26, respectively. During 2011, 2010 and 2009, the aggregate fair value of restricted shares and units that vested was \$31.7 million, \$25.1 million and \$20.8 million, respectively. The aggregate intrinsic value of restricted units outstanding and exercisable at December 31, 2011 was \$11.1 million and \$3.8 million, respectively.

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

**18. 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 2011, 2010 and 2009, the Company expensed approximately \$18.2 million, \$18.1 million and \$16.8 million, respectively, related to these retirement plans.

**19. 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, 2011, the Company was not a party to any litigation or arbitration which is expected by management to have a material adverse effect on the Company's results of operations and financial condition and liquidity.

Table of Contents**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****20. Statutory Information**

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

The statutory capital and surplus for the Company's principal operating subsidiaries at December 31, 2011 and 2010 was as follows:

	December 31,	
	2011	2010
<b>Statutory capital and surplus(1):</b>		
Bermuda	\$ 4,558,340	\$ 4,437,512
Ireland	\$ 532,342	\$ 418,834
United States	\$ 822,939	\$ 870,600
United Kingdom	\$ 223,389	\$ 100,319

(1)

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

The statutory net income (loss) for the Company's principal operating subsidiaries for 2011, 2010 and 2009 was as follows:

	Year Ended December 31,		
	2011	2010	2009
<b>Statutory net income (loss):</b>			
Bermuda	\$ 447,474	\$ 895,252	\$ 940,313
Ireland	\$ 9,123	\$ 11,457	\$ 438
United States	\$ (37,252)	\$ 22,235	\$ 74,470
United Kingdom	\$ 1,637	\$ 2,791	\$ (1,157)

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

***Bermuda***

Under The Insurance Act 1978, as amended, and related regulations of Bermuda (the "Insurance Act"), Arch Re Bermuda, the Company's Bermuda reinsurance and insurance subsidiary, is registered as a Class 4 insurer and long-term 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 and 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 margins and enhanced capital requirement pertaining to its general business. At December 31, 2011 and 2010, all such requirements were met.

Arch Re Bermuda is also required to file a regulatory risk based capital model that measures risks and determines enhanced capital requirements and a target capital level. In addition, all Class 4 Bermuda insurers must prepare and file with the BMA audited GAAP basis annual financial

Table of Contents

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**20. Statutory Information (Continued)**

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.

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 \$1.14 billion to ACG during 2012 without providing an affidavit to the BMA.

***Ireland***

Arch Re Europe was licensed and authorized by the Central Bank of Ireland ("CBOI") as a non-life reinsurer in October 2008 and as a life reinsurer in November 2009 while Arch Mortgage was authorized as a non-life insurer in Ireland in December 2011. Irish authorized reinsurers, such as Arch Re Europe and Arch Mortgage, are also subject to the general body of Irish laws and regulations including the provisions of the Companies Acts 1963-2006. Arch Re Europe and Arch Mortgage must file and submit their annual audited financial statements in accordance with Irish generally accepted accounting principles and related reports to the Registrar of Companies ("Registrar") under the Companies Acts 1963-2006 together with an annual return of certain core corporate information. Changes to core corporate information during the year must also be notified to the Registrar. These requirements are in addition to the regulatory returns required to be filed annually with the CBOI. Arch Re Europe and Arch Mortgage are 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 and Arch Mortgage are 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, the CBOI has powers to intervene if a dividend payment were to lead to a breach of regulatory capital requirements.



Table of Contents

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**20. 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.

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

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

Under U.K. law, all U.K. companies are restricted from declaring a dividend to their shareholders unless they have "profits available for distribution." The calculation as to whether a company has sufficient profits is based on its accumulated realized profits minus its accumulated realized losses. U.K. insurance regulatory laws do not prohibit the payment of dividends, but the FSA requires that

Table of Contents

## ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

**20. Statutory Information (Continued)**

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.

**21. Unaudited Quarterly Financial Information**

	Fourth Quarter	Third Quarter	Second Quarter	First Quarter
<b>2011 Income Statement Data:</b>				
Net premiums written	\$ 511,124	\$ 691,381	\$ 706,543	\$ 764,278
Net premiums earned	\$ 673,192	\$ 682,049	\$ 642,879	\$ 633,695
Fee income	982	848	784	815
Other income (loss)	(4,848)	2,432	(4,265)	4,567
Net investment income	80,467	82,753	86,671	88,307
Equity in net income (loss) of investment funds accounted for using the equity method	(14,702)	(30,549)	5,973	29,673
Net realized gains	14,542	30,199	45,210	20,695
Net impairment losses recognized in earnings	(1,959)	(2,739)	(1,684)	(2,680)
Losses and loss adjustment expenses	(378,067)	(423,984)	(431,622)	(493,880)
Acquisition expenses	(123,339)	(120,205)	(110,639)	(108,754)
Other operating expenses	(112,499)	(105,998)	(110,563)	(102,420)
Interest expense	(8,087)	(8,125)	(7,758)	(7,721)
Net foreign exchange gains (losses)	12,613	60,040	(18,375)	(36,912)
Income tax benefit	4,977	2,267	1,731	371
Net income	143,272	168,988	98,342	25,756
Preferred dividends	(6,461)	(6,461)	(6,461)	(6,461)
Net income available to common shareholders	\$ 136,811	\$ 162,527	\$ 91,881	\$ 19,295
<b>Net income per common share data</b>				
Basic	\$ 1.03	\$ 1.24	\$ 0.70	\$ 0.14
Diluted	\$ 1.00	\$ 1.19	\$ 0.67	\$ 0.14
<b>2010 Income Statement Data:</b>				
Net premiums written	\$ 482,911	\$ 636,117	\$ 624,258	\$ 767,754
Net premiums earned	\$ 632,146	\$ 627,409	\$ 623,011	\$ 669,917
Fee income	2,814	874	883	794
Other income	6,165	1,840	4,528	5,978
Net investment income	90,601	90,768	90,537	92,972
Equity in net income (loss) of investment funds accounted for using the equity method	22,990	9,708	(348)	29,050
Net realized gains	74,027	68,828	62,114	47,782
Net impairment losses recognized in earnings	(3,230)	(2,075)	(4,410)	(1,606)
Losses and loss adjustment expenses	(367,326)	(359,193)	(363,145)	(428,051)
Acquisition expenses	(104,824)	(111,279)	(107,475)	(117,624)
Other operating expenses	(121,335)	(103,121)	(101,533)	(106,806)
Interest expense	(7,460)	(7,371)	(7,916)	(7,260)
Net foreign exchange gains (losses)	6,039	(65,157)	48,625	38,601
Income tax benefit (expense)	3,505	(3,200)	(1,420)	(6,753)
Net income	234,112	148,031	243,451	216,994
Preferred dividends	(6,461)	(6,461)	(6,461)	(6,461)
Net income available to common shareholders	\$ 227,651	\$ 141,570	\$ 236,990	\$ 210,533

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

Net income per common share data

Basic		\$	1.59	\$	0.96	\$	1.55	\$	1.32
Diluted		\$	1.51	\$	0.92	\$	1.48	\$	1.26

198

---

Table of Contents

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**22. Subsequent Events**

During 2006, the Company invested \$50 million in Aeolus LP, which operates as an unrated reinsurance platform that provides collateralized property catastrophe protection to insurers and reinsurers on both an ultimate net loss and industry loss warranty basis. This investment is accounted for using the equity method on a three month lag (based on the availability of their financial statements) with changes in the carrying value recorded in "other income (loss)." As of December 31, 2011, the carrying value of this investment was approximately \$35 million, with no unfunded capital commitments. Based upon information currently available to the Company as to the 2011 fourth quarter results of Aeolus LP, the Company estimates that it will record in its 2012 first quarter results a loss in the range of \$8 million to \$10 million with respect to this investment. However, actual losses may vary materially from the estimates due to the inherent uncertainties in making estimates for catastrophic events.

The Company's 2012 first quarter results will be impacted by the January 2012 Costa Concordia marine event. The Company's preliminary estimate of losses for the event is in the range of \$18 million to \$35 million, net of reinsurance and reinstatement premiums. The Company's estimates for the Costa Concordia event is based, in part, on preliminary estimates of industry insured losses ranging from \$850 million to \$2.0 billion. The Company's actual losses from this event may vary materially from the estimates due to the inherent uncertainties in making such determinations.

In addition, the Company sold four individual TALF investments during January 2012 and the related \$67.2 million of TALF borrowings were extinguished accordingly. See Note 14, "Commitments and Contingencies - TALF Program" for additional information.

Table of Contents

**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, 2011, 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 information technology initiatives and 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.

**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, 2011. 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, 2011, our internal control over financial reporting was effective. The effectiveness of our internal control over financial reporting as of December 31, 2011 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which appears on page 137.

**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

Table of Contents

during the fiscal quarter ended December 31, 2011 that have materially affected, or are reasonably likely to materially affect, internal control over financial reporting.

**ITEM 9B. OTHER INFORMATION**

None.

**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 2012, 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, 2012, 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, 2012, 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 10,902,510 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 1,207,500 share awards remain outstanding under the New Employee Plan as of December 31, 2011. For information about our equity compensation plans, see note 17, "Share-Based Compensation," of the notes accompanying our consolidated financial statements.

Table of Contents

The following information is as of December 31, 2011:

Plan category	Number of securities to be issued upon exercise of outstanding options(1), warrants and rights (a)	Weighted-average exercise price of outstanding options(1), warrants and rights (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)
Equity compensation plans approved by security holders	7,797,366	\$ 19.89	3,434,774
Equity compensation plans not approved by security holders	1,207,500	\$ 7.85	
<b>Total</b>	<b>9,004,866</b>	<b>\$ 18.28</b>	<b>3,434,774</b>

---

(1) Includes all vested and unvested options outstanding of 8,706,441 and restricted stock units outstanding of 298,425.

**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, 2012, 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, 2012, which Proxy Statement is incorporated by reference.

Table of Contents**PART IV****ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES****(a) Financial Statements, Financial Statement Schedules and Exhibits.****1. Financial Statements**

Included in Part II see Item 8 of this report.

**2. Financial Statement Schedules**

	<b>Page No.</b>
<u>II. Condensed Financial Information of Registrant</u>	<u>213</u>
<u>III. Supplementary Insurance Information</u> <u>For the years ended December 31, 2011 and 2010 and 2009</u>	<u>216</u>
<u>IV. Reinsurance</u> <u>For the years ended December 31, 2011 and 2010 and 2009</u>	<u>217</u>
<u>VI. Supplementary Information for Property and Casualty Insurance Underwriters</u> <u>For the years ended December 31, 2011 and 2010 and 2009</u>	<u>218</u>

Schedules other than those listed above are omitted for the reason that they are not applicable or the information is provided in Item 8 of this report.

**3. Exhibits**

<b>Exhibit Number</b>	<b>Description</b>
3.1	Memorandum of Association of Arch Capital Group Ltd. ("ACGL")(e)
3.2	Bye-Laws of ACGL(vv)
3.3	ACGL Certificate of Deposit(vv)
4.1.1	Certificate of Designations of Series A Non-Cumulative Preferred Shares(y)
4.1.2	Certificate of Designations of Series B Non-Cumulative Preferred Shares(cc)
4.2.1	Specimen Common Share Certificate(f)
4.2.2	Specimen Series A Non-Cumulative Preferred Share Certificate(y)
4.2.3	Specimen Series B Non-Cumulative Preferred Share Certificate(cc)
4.3	Indenture and First Supplemental Indenture, dated as of May 4, 2004, between ACGL and JPMorgan Chase Bank, N.A. (formerly JPMorgan Chase Bank) ("JPMCB")(o)
10.1	Lease Agreement, dated as of July 22, 2008, between M-C Plaza II & II L.L.C. and Arch Insurance(oo)
10.2.1	ACGL Long Term Incentive Plan for New Employees ("2001 Plan")(h)
10.2.2	First Amendment to the 2001 Plan(pp)



10.3.1 ACGL 2002 Long Term Incentive and Share Award Plan ("2002 Plan")(k)

10.3.2 First Amendment to the 2002 Plan(m)

10.3.3 Second Amendment to the 2002 Plan(oo)

203

---

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

### Table of Contents

<b>Exhibit Number</b>	<b>Description</b>
10.4	Second Amended and Restated ACGL Incentive Compensation Plan(oo)
10.5	ACGL 2007 Long Term Incentive and Share Award Plan(cc)
10.6.1	ACGL 2007 Employee Share Purchase Plan ("2007 ESPP")(cc)
10.6.2	Amendment to ACGL 2007 ESPP, dated as of November 7, 2007(ii)
10.7.1	Restricted Share Agreements with ACGL Marc Grandisson October 23, 2001 grant(g), February 26, 2004 grant(s) September 22, 2004 grant(p) and November 15, 2005 grant(z)
10.7.2	Restricted Share Agreement with ACGL W. Preston Hutchings July 1, 2005 grant(z)
10.7.3	Restricted Share Agreements with ACGL Louis T. Petrillo January 30, 2001 grant(g), February 20, 2003 grant(n) and September 22, 2004 grant(p)
10.7.4	Restricted Share Agreements with ACGL Constantine Iordanou January 1, 2002 grant(h), February 26, 2004 grant(s) and September 22, 2004 grant(p)
10.7.5	Restricted Share Agreements with ACGL John D. Vollaro January 18, 2002 grant ("January Restricted Share Agreement")(k), February 20, 2003 grant(n), Amendment No. 1 to January Restricted Share Agreement(l) and September 22, 2004 grant(p)
10.7.6	Restricted Share Agreement with ACGL substantially in the form signed by Constantine Iordanou, John D. Vollaro and Marc Grandisson May 11, 2007 grants(ii)
10.7.7	Restricted Share Agreement with ACGL substantially in the form signed by W. Preston Hutchings and Louis T. Petrillo May 11, 2007 grants(ii)
10.7.8	Restricted Share Unit Agreement Constantine Iordanou February 20, 2003 grant ("February RSU Agreement")(n), First Amendment to February RSU Agreement December 9, 2008 grant(oo) and Second Amendment to February RSU Agreement July 9, 2009 grant(rr)
10.7.9	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 May 9, 2008 grants(mm)
10.7.10	Restricted Share Unit Agreement with ACGL Mark D. Lyons May 9, 2008 grant(mm), May 6, 2009 grant, May 5, 2010 grant(tt) and May 6, 2011 grant(zz)
10.7.11	Agreement, dated as of September 17, 2003, between ACGL and John D. Vollaro(n)
10.7.12	Restricted Share Agreements with ACGL substantially in the form signed by the Non-Employee Directors of ACGL 2003 annual grants(r), 2004 annual grants(q), 2005 annual grants(ii), 2008 annual grants(oo), 2009 grants(tt), 2010 grants(tt) and 2011 grants(xx)
10.7.13	Restricted Share Agreements with ACGL substantially in the form signed by Constantine Iordanou, John D. Vollaro and Marc Grandisson February 23, 2006 grants(dd)
10.7.14	Restricted Share Agreements ACGL substantially in the form signed by W. Preston Hutchings and Louis T. Petrillo February 23, 2006 grants(dd)
10.7.15	Restricted Share Agreement with ACGL John C.R. Hele April 1, 2009 grant(pp)
10.7.16	Restricted Share Agreements with ACGL substantially in the form signed by each of Constantine Iordanou, John C.R. Hele, John D. Vollaro, Louis T. Petrillo, W. Preston Hutchings and Marc Grandisson May 6, 2009 grants(ss)



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

### Table of Contents

<b>Exhibit Number</b>	<b>Description</b>
10.7.17	Restricted Share Agreements with ACGL substantially in the form signed by each of Constantine Iordanou, John C.R. Hele, Louis T. Petrillo, W. Preston Hutchings and Marc Grandisson May 5, 2010 grants(tt) and May 6, 2011 grants(zz)
10.7.18	Restricted Share Agreements with ACGL substantially in the form signed by each of Brian S. Posner, Yiorgos Lillikas and Eric W. Doppstadt May 6, 2011 grants(ww)
10.8.1	Stock Option Agreements with ACGL Non-Employee Directors of ACGL 2001 annual grants(f)
10.8.2	Stock Option Agreements with ACGL Louis T. Petrillo January 30, 2001 grant(g), October 23, 2001 grant(g) and September 22, 2004 grant(p)(v)
10.8.3	Stock Option Agreements with ACGL Marc Grandisson October 23, 2001 grant(g), September 22, 2004 grant(p)(v) and November 15, 2005(z)
10.8.4	Stock Option Agreement, dated July 1, 2005, between ACGL and W. Preston Hutchings(z)
10.8.5	Stock Option Agreements with ACGL John M. Pasquesi October 23, 2001 grant(h)
10.8.6	Stock Option Agreements with ACGL Constantine Iordanou January 1, 2002 grant(h) and September 22, 2004 grant(p)(w)
10.8.7	Stock Option Agreements with ACGL John D. Vollaro January 18, 2002 grant(k) and September 22, 2004 grant(p)(w)
10.8.8	Stock Option Agreements with Constantine Iordanou, John D. Vollaro and Marc Grandisson February 23, 2006 grants(dd)
10.8.9	Stock Option Agreements with W. Preston Hutchings and Louis T. Petrillo February 23, 2006 grants(dd)
10.8.10	Stock Option Agreement with John C.R. Hele April 1, 2009 grant(pp)
10.9.1	Share Appreciation Right Agreement with ACGL substantially in the form signed by Louis T. Petrillo and W. Preston Hutchings May 11, 2007 grants(ii)
10.9.2	Share Appreciation Right Agreement with ACGL substantially in the form signed by Constantine Iordanou, John D. Vollaro and Marc Grandisson May 11, 2007 grants(i)
10.9.3	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 grants(oo)
10.0.4	Share Appreciation Right Agreement with ACGL substantially in the form signed by each of Constantine Iordanou, John C.R. Hele, Marc Grandisson, W. Preston Hutchings, Mark D. Lyons, John D. Vollaro and Louis T. Petrillo May 6, 2009 grant(ss)
10.9.5	Share Appreciation Right Agreement with ACGL substantially in the form signed by each of Constantine Iordanou, John C.R. Hele, Marc Grandisson, W. Preston Hutchings, Mark D. Lyons and Louis T. Petrillo May 5, 2010 grant(tt) and May 6, 2011 grant(zz)
10.10	Employment and Change in Control Agreement, dated as of May 5, 2000, between ACGL and Louis T. Petrillo(d) and Amendment to Change in Control Agreement, dated as of December 31, 2008(oo)

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

### Table of Contents

<b>Exhibit Number</b>	<b>Description</b>
10.11	Employment Agreement, dated as of October 23, 2001, among ACGL, Arch Re Bermuda and Marc Grandisson(h), First Amendment to same, dated as of November 16, 2005(z) and Second Amendment to same, dated as of November 24, 2008(oo)
10.12	Employment Letter Agreement, dated as of May 29, 2005, between ACGL and W. Preston Hutchings(x) and Amendment to same, dated as of May 21, 2008(kk)
10.13	Employment Agreement, dated as of November 28, 2007 between ACGL and Constantine Iordanou(hh) and Amendment to same, dated as of December 31, 2008(oo)
10.14	Employment Agreement, dated as of October 27, 2008, between ACGL and John D. Vollaro(ll)
10.15	Employment Agreement, dated as of October 22, 2008, between ACGL and John C.R. Hele(ll)
10.16	Employment Agreement, dated as of August 1, 2006, between Arch Insurance Group Inc. and Mark D. Lyons(oo) and Amendment to same, dated as of November 24, 2008(oo)
10.17	Assumption of Change in Control Agreements(f)
10.18	ACGL 1995 Employee Stock Purchase Plan(a)
10.19	Arch Capital Group (U.S.) Inc. ("Arch U.S.") Executive Supplemental Non-Qualified Savings and Retirement Plan(oo)
10.20	Asset Purchase Agreement, dated as of January 10, 2000, by and among Arch U.S., Folksamerica Holding Company, Inc. ("FHC") and Folksamerica(b)
10.21	Transfer and Assumption Agreement, dated May 5, 2000, between Arch Reinsurance Company (formerly Risk Capital Reinsurance Company) ("Arch Re U.S.") and Folksamerica(c)
10.22	Escrow Agreement, dated December 28, 2000, by and among ACGL, FHC, Folksamerica and the Escrow Agent(f)
10.23	Agreement, dated May 5, 2000, by and among Arch U.S., Arch Re U.S., FHC and Folksamerica regarding Aviation Business(e)
10.24	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.(e)
10.25.1	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 Re U.S."), Arch Insurance Company ("AIC"), Arch Specialty Insurance Company ("ASIC"), Arch Excess & Surplus Insurance Company ("AESIC"), Arch Indemnity Insurance Company (formerly Western Diversified Casualty Insurance Company) and Arch Insurance Company (Europe) Limited ("Arch Insurance Europe"), 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(cc)
10.25.2	First Amendment to the Second Amended and Restated Credit Agreement, dated as of October 1, 2007(ff)

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

### Table of Contents

<b>Exhibit Number</b>	<b>Description</b>
10.25.3	Second Amendment to the Second Amended and Restated Credit Agreement, dated as of June 26, 2009(qq)
10.26	Letter of Credit and Reimbursement Agreement, dated as of November 18, 2010 by and among Arch Re Bermuda, ING Bank N.V., London Branch ("ING Bank"), as agent, and ING Bank and Lloyds Bank TSB Bank plc ("Lloyds TSB Bank"), as original lenders, and ING Bank and Lloyds TSB as mandated lead arrangers(uu)
10.27	Master Reimbursement Agreement, dated as of November 6, 2009, between Citibank Europe PLC and Arch Re Bermuda(ss)
10.28.1	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(s)
10.28.2	Waiver Letter Agreement related to the Stock Purchase Agreement, dated as of October 5, 2004, signed by Arch Capital Holdings, ACGL and Protective(t)
10.29.1	Joint Venture Agreement, dated as of January 22, 2008 ("Gulf Joint Venture Agreement"), between Gulf Investment Corporation GSC and Arch Re Bermuda relating to Gulf Holdings Limited(jj)(nn)
10.29.2	Amendment, dated as of May 18, 2011, to the Gulf Joint Venture Agreement(xx)
10.30	Credit Agreement, dated as of August 18, 2011, by and among ACGL, Arch Re Bermuda, Arch Re U.S., Arch Reinsurance Europe Underwriting Limited, AIC, ASIC, AESIC and Arch Insurance Europe, Bank of America, N.A., as administrative agent, fronting bank and L/C administrator, JPMorgan Chase Bank, N.A., as fronting bank, L/C administrator and syndication agent, Citibank, N.A., U.S. Bank National Association and Wells Fargo Bank, National Association, as co-documentation agents, the other lenders party thereto, and Merrill Lynch, Pierce, Fenner & Smith Incorporated and J.P. Morgan Securities LLC, as joint lead arrangers and joint book managers(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(u)
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)

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

### Table of Contents

<b>Exhibit Number</b>	<b>Description</b>
101	The following financial information from ACGL's Annual Report on Form 10-K for the year ended December 31, 2011 formatted in XBRL: (i) Consolidated Balance Sheets at December 31, 2011 and 2010; (ii) Consolidated Statements of Income for the years ended December 31, 2011, 2010 and 2009; (iii) Consolidated Statements of Comprehensive Income for the years ended December 31, 2011, 2010 and 2009; (iv) Consolidated Statements of Changes in Shareholders' Equity for the years ended December 31, 2011, 2010 and 2009; (v) Consolidated Statements of Cash Flows for the years ended December 31, 2011, 2010 and 2009; and (vi) Notes to Consolidated Financial Statements (filed herewith)
(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.
(b)	Filed as an exhibit to our Report on Form 8-K as filed with the SEC on January 18, 2000, and incorporated by reference.
(c)	Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on May 19, 2000, and incorporated by reference.
(d)	Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on September 8, 2000, and incorporated by reference.
(e)	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.
(f)	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.
(g)	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.
(h)	Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on January 4, 2002, and incorporated by reference.
(i)	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.
(j)	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.
(k)	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.
(l)	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.
(m)	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.
(n)	

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

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.

(o) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on May 7, 2004, and incorporated by reference.

(p) 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.



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

### Table of Contents

- (q) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on October 6, 2004, and incorporated by reference.
- (r) 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.
- (s) 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.
- (t) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on October 8, 2004, and incorporated by reference.
- (u) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on May 3, 2004, and incorporated by reference.
- (v) 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.
- (w) 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.
- (x) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on June 9, 2005, and incorporated by reference.
- (y) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on February 2, 2006, and incorporated by reference.
- (z) 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.
- (aa) 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.
- (bb) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on August 31, 2006, and incorporated by reference.
- (cc) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on May 24, 2006, and incorporated by reference.
- (dd) 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, and incorporated by reference.
- (ee) Filed as an appendix to our Definitive Proxy Statement, as filed with the SEC on April 3, 2007, and incorporated by reference.
- (ff) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on October 2, 2007, and incorporated by reference.
- (gg) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on December 3, 2007, and incorporated by reference.
- (hh)

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

Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on December 3, 2007, and incorporated by reference.

(ii)

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.

(jj)

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, and incorporated by reference.

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

### Table of Contents

- (kk) 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, and incorporated by reference.
- (ll) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on October 28, 2008, and incorporated by reference.
- (mm) 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, and incorporated by reference.
- (nn) Pursuant to 17 CFR 240.24 b-2, confidential information has been omitted and filed separately with the SEC.
- (oo) Filed as an exhibit to our Annual Report on Form 10-K for the year ended December 31, 2008, as filed with the SEC on March 2, 2009, and incorporated by reference.
- (pp) Filed as an exhibit to our Report on Form 10-Q for the period ending March 31, 2009, as filed with the SEC on May 11, 2009, and incorporated by reference.
- (qq) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on June 29, 2009, and incorporated by reference.
- (rr) Filed as an exhibit to our Report on Form 10-Q for the period ending September 30, 2009, as filed with the SEC on November 9, 2009, and incorporated by reference.
- (ss) Filed as an exhibit to our Annual Report on Form 10-K for the year ended December 31, 2009, as filed with the SEC on February 26, 2010, and incorporated by reference.
- (tt) Filed as an exhibit to our Report on Form 10-Q for the period ending September 30, 2010, as filed with the SEC on November 8, 2010, and incorporated by reference.
- (uu) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on November 19, 2010, and incorporated by reference.
- (vv) Filed as an exhibit to our Annual Report on Form 10-K for the period ending December 31, 2010, as filed with the SEC on February 28, 2011, and incorporated by reference.
- (ww) Filed as an exhibit to our Report on Form 10-Q for the period ending March 31, 2011, as filed with the SEC on May 9, 2011, and incorporated by reference.
- (xx) Filed as an exhibit to our Report on Form 10-Q for the period ending June 30, 2011, as filed with the SEC on August 5, 2011, and incorporated by reference.
- (yy) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on August 22, 2011, and incorporated by reference.
- (zz) Filed as an exhibit to our Report on Form 10-Q for the period ending September 30, 2011, as filed with the SEC on November 8, 2011, and incorporated by reference.
- (aaa)

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

This exhibit will not be deemed "filed" for the purposes of Section 18 of the Securities Exchange Act of 1934 (15 U.S.C. 78r), or otherwise subject to the liability of that section. Such exhibit will not be deemed to be incorporated by reference into any filing under the Securities Act or Securities Exchange Act, except to the extent that we specifically incorporate it by reference.

Management contract or compensatory plan or arrangement.

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: *Chairman of the Board of Directors,  
President & Chief Executive Officer*

February 29, 2012

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	Chairman of the Board of Directors, President and Chief Executive Officer (Principal Executive Officer)	February 29, 2012
<u>/s/ JOHN C.R. HELE</u> John C.R. Hele	Executive Vice President, Chief Financial Officer and Treasurer (Principal Financial and Principal Accounting Officer)	February 29, 2012
* <u>Wolfe "Bill" H. Bragin</u>	Director	February 29, 2012
* <u>John L. Bunce. Jr.</u>	Director	February 29, 2012
* <u>Eric W. Doppstadt</u>	Director	February 29, 2012
* <u>Kewsong Lee</u>	Director	February 29, 2012

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

Table of Contents

<b>Name</b>	<b>Title</b>	<b>Date</b>
*		
_____ Yiorgos Lillikas	Director	February 29, 2012
*		
_____ James J. Meenaghan	Director	February 29, 2012
*		
_____ John M. Pasquesi	Director	February 29, 2012
*		
_____ Brian S. Posner	Director	February 29, 2012
*		
_____ John D. Vollaro	Director	February 29, 2012
*		
_____ Robert F. Works	Director	February 29, 2012

\*  
By John C.R. Hele, 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 C.R. HELE

\_\_\_\_\_  
Name: John C.R. Hele  
*Attorney-in-Fact*

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**CONDENSED FINANCIAL INFORMATION OF REGISTRANT**

**Balance Sheet**  
**(Parent Company Only)**  
**(U.S. dollars in thousands, except share data)**

	December 31,	
	2011	2010
<b>Assets</b>		
Investments in wholly owned subsidiaries	\$ 5,033,438	\$ 4,905,589
Short-term investments available for sale, at fair value	3,235	7,611
Cash	4,717	6,781
Other assets	1,205	1,326
<b>Total Assets</b>	<b>\$ 5,042,595</b>	<b>\$ 4,921,307</b>
<b>Liabilities</b>		
Senior notes	\$ 300,000	\$ 300,000
Revolving credit agreement borrowings	100,000	100,000
Accounts payable and other liabilities	14,109	8,304
<b>Total Liabilities</b>	<b>414,109</b>	<b>408,304</b>
<b>Shareholders' Equity</b>		
Non-cumulative preferred shares Series A and B	325,000	325,000
Common shares (\$0.0033 par, shares issued: 164,636,338 and 160,073,616)	549	534
Additional paid-in capital	161,419	110,325
Retained earnings	4,833,067	4,422,553
Accumulated other comprehensive income, net of deferred income tax	153,923	204,503
Common shares held in treasury, at cost (shares: 30,277,993 and 20,441,391)	(845,472)	(549,912)
<b>Total Shareholders' Equity</b>	<b>4,628,486</b>	<b>4,513,003</b>
<b>Total Liabilities and Shareholders' Equity</b>	<b>\$ 5,042,595</b>	<b>\$ 4,921,307</b>

**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,		
	2011	2010	2009
<b>Revenues</b>			
Net investment income	\$ 0	\$ 0	\$ 0
Net realized gains	63	97	
<b>Total revenues</b>	63	97	0
<b>Expenses</b>			
Operating expenses	31,509	29,367	31,007
Interest expense	23,151	22,887	22,815
<b>Total expenses</b>	54,660	52,254	53,822
<b>Loss before income taxes</b>	(54,597)	(52,157)	(53,822)
Income tax benefit			
<b>Loss before equity in net income of wholly owned subsidiaries</b>	(54,597)	(52,157)	(53,822)
Equity in net income of wholly owned subsidiaries	490,955	894,745	930,767
<b>Net income</b>	436,358	842,588	876,945
Preferred dividends	(25,844)	(25,844)	(25,844)
<b>Net income available to common shareholders</b>	\$ 410,514	\$ 816,744	\$ 851,101



**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,		
	2011	2010	2009
<b>Operating Activities</b>			
Net income	\$ 436,358	\$ 842,588	\$ 876,945
Adjustments to reconcile net income to net cash provided by operating activities:			
Equity in net income of wholly owned subsidiaries	(490,955)	(894,745)	(930,767)
Net realized gains	(63)	(97)	
Share-based compensation	7,197	8,194	5,588
Dividends received from subsidiary	341,510	795,000	530,408
Net change in other assets and liabilities	6,717	(2,070)	970
<b>Net Cash Provided By Operating Activities</b>	<b>300,764</b>	<b>748,870</b>	<b>483,144</b>
<b>Investing Activities:</b>			
Net sales (purchases) of short-term investments	4,441	13,504	(12,060)
Purchase of furniture, equipment and other	(196)	(194)	(8)
<b>Net Cash Provided By (Used For) Investing Activities</b>	<b>4,245</b>	<b>13,310</b>	<b>(12,068)</b>
<b>Financing Activities:</b>			
Purchases of common shares under share repurchase program	(287,561)	(761,874)	(458,402)
Proceeds from common shares issued, net	6,332	27,649	9,966
Proceeds from borrowings		135,000	50,000
Repayments of borrowings		(135,000)	(50,000)
Preferred dividends paid	(25,844)	(25,844)	(25,844)
<b>Net Cash Used For Financing Activities</b>	<b>(307,073)</b>	<b>(760,069)</b>	<b>(474,280)</b>
Increase (decrease) in cash	(2,064)	2,111	(3,204)
Cash beginning of year	6,781	4,670	7,874
<b>Cash end of year</b>	<b>\$ 4,717</b>	<b>\$ 6,781</b>	<b>\$ 4,670</b>

**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, 2011</b>									
Insurance	\$ 195,691	\$ 5,762,533	\$ 1,039,081	\$ 1,679,047	NM	\$ 1,172,742	\$ 278,696	\$ 306,801	\$ 1,721,279
Reinsurance	83,418	2,693,677	372,791	952,768	NM	554,811	184,241	93,299	952,047
Total	\$ 279,109	\$ 8,456,210	\$ 1,411,872	\$ 2,631,815	NM	\$ 1,727,553	\$ 462,937	\$ 400,100	\$ 2,673,326
<b>December 31, 2010</b>									
Insurance	\$ 212,619	\$ 5,422,297	\$ 1,088,014	\$ 1,651,106	NM	\$ 1,117,564	\$ 263,201	\$ 312,404	\$ 1,658,963
Reinsurance	65,242	2,676,157	282,061	901,377	NM	400,151	178,001	91,523	852,077
Total	\$ 277,861	\$ 8,098,454	\$ 1,370,075	\$ 2,552,483	NM	\$ 1,517,715	\$ 441,202	\$ 403,927	\$ 2,511,040
<b>December 31, 2009</b>									
Insurance	\$ 206,866	\$ 5,093,796	\$ 1,109,283	\$ 1,688,519	NM	\$ 1,139,415	\$ 238,261	\$ 281,340	\$ 1,704,284
Reinsurance	73,506	2,779,616	324,048	1,154,226	NM	515,259	255,299	80,567	1,058,828
Total	\$ 280,372	\$ 7,873,412	\$ 1,433,331	\$ 2,842,745	NM	\$ 1,654,674	\$ 493,560	\$ 361,907	\$ 2,763,112

(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, 2011</b>					
Premiums Written:					
Insurance	\$ 2,402,153	\$ (723,206)	\$ 42,332	\$ 1,721,279	2.5%
Reinsurance		(46,473)	998,520	952,047	104.9%
<b>Total</b>	<b>\$ 2,402,153</b>	<b>\$ (763,130)</b>	<b>\$ 1,034,303</b>	<b>\$ 2,673,326</b>	<b>38.7%</b>
<b>Year Ended December 31, 2010</b>					
Premiums Written:					
Insurance	\$ 2,338,428	\$ (743,239)	\$ 63,774	\$ 1,658,963	3.8%
Reinsurance		(22,880)	874,957	852,077	102.7%
<b>Total</b>	<b>\$ 2,338,428</b>	<b>\$ (755,747)</b>	<b>\$ 928,359</b>	<b>\$ 2,511,040</b>	<b>37.0%</b>
<b>Year Ended December 31, 2009</b>					
Premiums Written:					
Insurance	\$ 2,427,027	\$ (807,843)	\$ 85,100	\$ 1,704,284	5.0%
Reinsurance	17	(35,112)	1,093,923	1,058,828	103.3%
<b>Total</b>	<b>\$ 2,427,044</b>	<b>\$ (829,819)</b>	<b>\$ 1,165,887</b>	<b>\$ 2,763,112</b>	<b>42.2%</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.

**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 Insurance	Deferred Acquisition Costs, Net	Reserves for Losses and Adjustments	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	Net Losses and Loss Adjustment Expenses Incurred Related to (b) Prior Years	Amortization of Deferred Acquisition Costs	Net Paid Losses and Adjustments	Net Premiums Written
<b>Insurance</b>											
2011	\$ 195,691	\$ 5,762,533	\$ 9,834	\$ 1,039,081	\$ 1,679,047	NM	\$ 1,224,861	\$ (52,119)	\$ 278,696	\$ 900,398	\$ 1,721,279
2010	212,619	5,422,297	8,009	1,088,014	1,651,106	NM	1,136,665	(19,101)	263,201	865,510	1,658,963
2009	206,866	5,093,796	6,151	1,109,283	1,688,519	NM	1,186,475	(47,060)	238,261	865,894	1,704,284
<b>Reinsurance</b>											
2011	\$ 83,418	\$ 2,693,677		\$ 372,791	\$ 952,768	NM	\$ 787,707	\$(232,896)	\$ 184,241	\$ 552,225	\$ 952,047
2010	65,242	2,676,157		282,061	901,377	NM	527,746	(127,595)	178,001	441,775	852,077
2009	73,506	2,779,616		324,048	1,154,226	NM	657,400	(142,141)	255,299	573,196	1,058,828

- (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.