ARCH CAPITAL GROUP LTD. Form 424B2 March 26, 2012

> Filed Pursuant to Rule 424(B)(2) Registration No. 333-180329

The information in this preliminary prospectus supplement and the accompanying prospectus is not complete and may be changed. This preliminary prospectus supplement and the accompanying prospectus are not an offer to sell securities and are not soliciting an offer to buy securities or the solicitation of an offer to buy nor shall there be any sale of these securities in any jurisdiction in which such offer, solicitation or sale is not permitted.

Subject to Completion
Preliminary Prospectus Supplement dated March 26, 2012

PROSPECTUS SUPPLEMENT (to prospectus dated March 23, 2012)

Shares

% Non-Cumulative Preferred Shares, Series C

Arch Capital Group Ltd. is offering shares of its % Non-Cumulative Preferred Shares, Series C, \$25 liquidation preference per share (the "Series C Non-Cumulative Preferred Shares").

Holders of Series C Non-Cumulative Preferred Shares will be entitled to receive dividend payments only when, as and if declared by our board of directors or a duly authorized committee of the board. Any such dividends will be payable from, and including, the date of original issue on a non-cumulative basis, quarterly in arrears on the last day of March, June, September and December of each year (each, a "dividend payment date"), commencing on June 30, 2012, at an annual rate of \$\infty\$.

Dividends on the Series C Non-Cumulative Preferred Shares are not cumulative. Accordingly, in the event dividends are not declared on the Series C Non-Cumulative Preferred Shares for payment on any dividend payment date, then those dividends will not accrue and will not be payable. If we have not declared a dividend before the dividend payment date for any dividend period, we will have no obligation to pay dividends for that dividend period, whether or not dividends on the Series C Non-Cumulative Preferred Shares are declared for any future dividend period.

So long as any Series C Non-Cumulative Preferred Shares remain outstanding, no dividend shall be paid or declared on our common shares or any of our other securities ranking junior to the Series C Non-Cumulative Preferred Shares (other than a dividend payable solely in common shares or in such other junior securities), unless the full dividends for the latest completed dividend period on all outstanding Series C Non-Cumulative Preferred Shares and any parity shares have been declared and paid or provided for. In the past, we have not paid dividends on our common shares.

Except in specified circumstances relating to certain tax or corporate events, the Series C Non-Cumulative Preferred Shares are not redeemable prior to , 2017. On and after that date, the Series C Non-Cumulative Preferred Shares will be redeemable at our option, in whole or in part, at a redemption price of \$25 per Series C Non-Cumulative Preferred Share, plus any declared and unpaid dividends, without accumulation of any undeclared dividends to, but excluding, the redemption date. See "Description of the Series C Non-Cumulative Preferred Shares Redemption" and "Description of the Series C Non-Cumulative Preferred Shares Tax Redemption" in this prospectus supplement. Our ability to redeem the Series C Non-Cumulative Preferred Shares restrictions described under "Description of the Series C Non-Cumulative Preferred Shares Redemption" in this prospectus supplement.

The Series C Non-Cumulative Preferred Shares will not have voting rights, except as set forth under "Description of the Series C Non-Cumulative Preferred Shares Voting Rights" in this prospectus supplement.

We intend to apply to list the Series C Non-Cumulative Preferred Shares on the New York Stock Exchange ("NYSE") under the symbol "ARHPrC." If the application is approved, we expect trading to commence 30 days following the initial issuance of the Series C Non-Cumulative Preferred Shares.

An investment in the Series C Non-Cumulative Preferred Shares involves risks. See "Risk Factors" beginning on page S-9 of this prospectus supplement and on page 2 of the accompanying prospectus to read about important factors you should consider before investing in the Series C Non-Cumulative Preferred Shares.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement or the accompanying prospectus are truthful or complete. Any representation to the contrary is a criminal offense.

	Per Series C Preferred Share	Total
Public offering price		
Underwriting discount(1)		
Proceeds, before expenses, to ACGL(1)		
With respect to sales made by the underwriters to certain institutions, the underwriting discount wi Share and, with respect to such sales only, the total underwriting discount will be less than the amount set forth in the table above. See "Underwriting Commissions are	ount set forth in the table above and	
The underwriters may also purchase from us up to an additional Series C Non-Cumulative Prefer underwriting discount payable by us, within 30 days from the date of this prospectus supplement to cover over	red Shares at the public offering pr rallotments, if any.	rice, less the
The underwriters expect to deliver the Series C Non-Cumulative Preferred Shares in book entry form or Company against payment in New York, New York on or about , 2012.	nly, through the facilities of The De	epository Trust

	Joint Book-Runni	ing Managers		
Wells Fargo Securities	BofA Merrill Lynch	Morgan Stanley	UBS Investment Bank	
C	Senior Co-M	Managers C		
Barcla	ys	J.P.	J.P. Morgan	
	Co-Mana	agers	3	
BNY Mellon Capital Markets,	LLC Credit Sui	sse Deutsche Bank See	curities US Bancorp	
	The date of this prospectus suppl	lement is , 2012.		

TABLE OF CONTENTS

	Page
Prospectus Supplement	_
Prospectus Supplement Summary	<u>S-1</u>
Risk Factors	<u>S-9</u>
<u>Use of Proceeds</u>	<u>S-36</u>
Ratio of Earnings to Fixed Charges and Preference Share Dividends	<u>S-37</u>
<u>Capitalization</u>	<u>S-38</u>
Description of the Series C Non-Cumulative Preferred Shares	<u>S-39</u>
Certain Income Tax Considerations	<u>S-53</u>
<u>Underwriting</u>	<u>S-60</u>
<u>Legal Matters</u>	<u>S-65</u>
<u>Experts</u>	<u>S-66</u>
Cautionary Note Regarding Forward-Looking Statements	<u>S-67</u>
Where You Can Find Additional Information	<u>S-69</u>
	Page
Prospectus	rage
Arch Capital Group Ltd.	<u>1</u>
Arch Capital Group (U.S.) Inc.	
About This Prospectus	1
Risk Factors	$\overline{2}$
Ratio of Earnings to Fixed Charges and Preference Share Dividends	$\frac{\overline{2}}{2}$
Use of Proceeds	$\frac{1}{2}$
General Description of the Offered Securities	2
Description of Arch Capital Share Capital	3
Description of Arch Capital Common Shares	3
Description of Arch Capital Preference Shares	5
Description of Arch Capital Debt Securities	12
Description of Arch Capital Depositary Shares	26
Description of Arch Capital Warrants to Purchase Common Shares or Preference Shares	29
Description of Arch Capital Warrants to Purchase Debt Securities	31
Description of Arch Capital Share Purchase Contracts and Share Purchase Units	32
Description of Arch Capital Group (U.S.) Inc. Preferred Stock	33
Description of Arch Capital Group (U.S.) Inc. Unsecured Debt Securities	35
Selling Shareholders	50
Plan of Distribution	50
Where You Can Find More Information	51
Incorporation of Documents by Reference	1 1 2 2 2 2 2 3 3 5 12 26 29 31 32 33 35 50 50 51 52 53 55 55
Cautionary Note Regarding Forward-Looking Statements	53
Legal Matters	55
Experts	55
Enforcement of Civil Liabilities Under United States Federal Securities Laws	55

This prospectus supplement and the accompanying prospectus relate to the offer and sale by us of the Series C Non-Cumulative Preferred Shares. You should rely only on the information contained or incorporated by reference in this prospectus supplement and the accompanying prospectus. We have not, and the underwriters have not, authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not, and the underwriters are not, making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference

herein and in the accompanying prospectus is accurate only as of their respective dates. Our business, financial condition, results of operations and prospects may have changed since those dates.

In this prospectus supplement and in the accompanying prospectus, unless the context requires otherwise: (a) "ACGL" and "Arch Capital" refer to Arch Capital Group Ltd., (b) "we," "us," "our" and "the Company" refer to ACGL and its subsidiaries, (c) "Arch Re Bermuda" refers only to our wholly owned Bermuda reinsurance subsidiary, Arch Reinsurance Ltd., (d) "Arch Re U.S." refers only to our wholly owned U.S. reinsurance subsidiary, Arch Reinsurance Company, (e) "Arch Re Europe" refers to Arch Reinsurance Europe Underwriting Limited, (f) "Arch Insurance Europe" refers to the insurance operations of Arch Insurance Company (Europe) Limited ("Arch Insurance Company Europe") and our Lloyd's of London Syndicate 2012, collectively, (g) "Arch Mortgage" refers to Arch Mortgage Insurance Limited and (h) "Arch Insurance Company Europe" refers to our wholly owned U.K. insurance subsidiary, Arch Insurance Company (Europe) Limited.

Consent under the Exchange Control Act 1972 (and its related regulations) has been obtained from the Bermuda Monetary Authority ("BMA") for the issue and transfer of our shares, which includes the Series C Non-Cumulative Preferred Shares, to and between non-residents and residents of Bermuda for exchange control purposes provided our shares remain listed on an appointed stock exchange, which includes the NASDAQ Global Select Market and the NYSE. This prospectus supplement will be filed with the Registrar of Companies in Bermuda in accordance with Bermuda law. In granting such consent and in accepting this prospectus supplement for filing, neither the BMA nor the Registrar of Companies in Bermuda accepts any responsibility for our financial soundness or the correctness of any of the statements made or opinions expressed in this prospectus supplement.

Table of Contents

PROSPECTUS SUPPLEMENT SUMMARY

This summary is not complete and does not contain all the information you should consider. You should read this entire prospectus supplement and the accompanying prospectus carefully, including without limitation, the documents incorporated by reference in this prospectus supplement or the accompanying prospectus, the sections entitled "Risk Factors" in this prospectus supplement and in the accompanying prospectus and the section entitled "Cautionary Note Regarding Forward-Looking Statements."

Our Company

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.

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.

The broad market environment continues to be competitive with most long-tail product lines having plenty of capacity available. From a rate change 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 property and property catastrophe-exposed business and other short-tail lines. We expect that property and property catastrophe-exposed business will continue to represent a significant proportion of our overall book, which could increase the volatility of our operating results.

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

Table of Contents

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.

Principal Executive Office

Our registered office is located at Clarendon House, 2 Church Street, Hamilton HM 11, Bermuda (telephone number: (441) 295-1422), and our principal executive offices are located at Wessex House, 5th Floor, 45 Reid Street, Hamilton HM 12, Bermuda (telephone number: (441) 278-9250). We maintain a website at http://www.archcapgroup.bm. The information contained on our website is not incorporated herein by reference and does not form a part of this prospectus supplement or the accompanying prospectus.

Table of Contents

THE OFFERING

The following is a brief summary of certain terms of this offering. For a more complete description of the terms of the Series C Non-Cumulative Preferred Shares, see "Description of the Series C Non-Cumulative Preferred Shares" in this prospectus supplement.

Issuer Arch Capital Group Ltd.

Securities offered shares of % Non-Cumulative Preferred Shares, Series C (or "Series C

Non-Cumulative Preferred Shares"), \$0.01 par value per share, with a liquidation preference of \$25 per share, of Arch Capital (Series C Non-Cumulative Preferred Shares if the underwriters exercise their over-allotment option in full). We may from time to time elect to issue additional Series C Non-Cumulative Preferred Shares, and all the additional shares would

be deemed to form a single series with the Series C Non-Cumulative Preferred Shares.

Dividends

Dividends on the Series C Non-Cumulative Preferred Shares, when, as and if declared by the board of directors of Arch Capital or a duly authorized committee of the board, will accrue and be payable on the liquidation preference amount from, and including, the original issue date, on a non-cumulative basis, quarterly in arrears on each dividend payment date, at an annual rate %. Any such dividends will be distributed to holders of the Series C Non-Cumulative Preferred Shares in the manner described under "Description of the Series C Non-Cumulative Preferred Shares Dividends" in this prospectus supplement. Dividends will be computed on the basis of a 360-day year consisting of twelve 30-day months. Dividends on the Series C Non-Cumulative Preferred Shares are not cumulative. Accordingly, in the event dividends are not declared on the Series C Non-Cumulative Preferred Shares and any parity shares for payment on any dividend payment date, then such dividends will not accrue and will not be payable. If the board of directors of Arch Capital or a duly authorized committee of the board has not declared a dividend before the dividend payment date for any dividend period, we will have no obligation to pay dividends for such dividend period after the dividend payment date for that dividend period, whether or not dividends on the Series C Non-Cumulative Preferred Shares are declared for any future dividend period.

Table of Contents

If, as is intended, the Series C Non-Cumulative Preferred Shares are approved for listing on the NYSE, dividends received by individuals and other non-corporate United States Persons on the Series C Non-Cumulative Preferred Shares in taxable years beginning on or before December 31, 2012 should 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. There is a risk that dividends, if any, paid prior to the listing of the Series C Non-Cumulative Preferred Shares on the NYSE may not constitute qualified dividend income. All dividends received during taxable years beginning after December 31, 2012 will no longer be taxed at the rate applicable for long-term capital gains unless legislation is enacted providing otherwise. Under the Obama Administration's Fiscal Year 2013 Revenue Proposals, the preferential treatment of qualified dividend income would expire after December 31, 2012 for income that would be taxable in the 36 percent or 39.6 percent brackets. See "Certain Income Tax Considerations Taxation of Shareholders United States Taxation Taxation of Dividends" in this prospectus supplement.

Dividend Payment Dates

The last day of March, June, September and December of each year, commencing on June 30, 2012. If any date on which dividends would otherwise be payable is not a business day, then the dividend payment date will be the next succeeding business day with the same force and effect as if made on the original dividend payment date. Dividends on the Series C Non-Cumulative Preferred Shares will not be mandatory.

Payment of Additional Amounts

Subject to certain limitations, we will pay additional amounts to holders of the Series C Non-Cumulative Preferred Shares, as additional dividends, to make up for any deduction or withholding for any taxes or other charges imposed on amounts we must pay with respect to the Series C Non-Cumulative Preferred Shares, so that the net amounts paid will be equal to the amounts we would otherwise be required to pay had no such withholding or deduction been required. See "Description of the Series C Non-Cumulative Preferred Shares Payment of Additional Amounts" in this prospectus supplement.

Tax Redemption

At any time following a tax event (as defined in "Description of the Series C Non-Cumulative Preferred Shares Tax Redemption"), we may redeem the Series C Non-Cumulative Preferred Shares, in whole or in part from time to time, at a redemption price of \$25 per share plus declared and unpaid dividends, if any, to, but excluding, the date of redemption, without accumulation of any undeclared dividends. See "Description of the Series C Non-Cumulative Preferred Shares Tax Redemption" in this prospectus supplement.

Table of Contents

Other Optional Redemption

On and after , 2017, the Series C Non-Cumulative Preferred Shares will be redeemable at our option, in whole or in part, at a redemption price equal to \$25 per Series C Non-Cumulative Preferred Share, plus declared and unpaid dividends, if any, to, but excluding, the date of redemption.

Additionally, at any time prior to , 2017, we may redeem all but not less than all of the Series C Non-Cumulative Preferred Shares at a redemption price of \$26 per share, plus any declared and unpaid dividends, to, but excluding, the date of redemption, if we

submit a proposal to our holders of common shares concerning an amalgamation, consolidation, merger, arrangement, reconstruction, reincorporation, de-registration or other similar transaction involving us that requires a vote of the holders of our Series C Non-Cumulative Preferred Shares, voting separately as a single class (alone or with one or more classes or series of preferred shares); or

submit any proposal for any other matter that, as a result of any change in Bermuda law after the date of this prospectus supplement (whether by enactment or official interpretation), requires a vote of the holders of our Series C Non-Cumulative Preferred Shares, voting separately as a single class (alone or with one or more classes or series of preferred shares).

Our ability to redeem the Series C Non-Cumulative Preferred Shares as described above or pursuant to certain tax events may be limited by covenants contained in our credit facilities, by the provisions of other agreements we may enter into and by applicable regulations. See "Description of the Series C Non-Cumulative Preferred Shares Certain Restrictions on Payment of Dividends and Redemptions" in this prospectus supplement.

The Series C Non-Cumulative Preferred Shares will not be subject to any sinking fund or other obligation of ours to redeem, purchase or retire the Series C Non-Cumulative Preferred Shares.

Table of Contents

Certain Restrictions on Payment of Dividends and Redemptions

Under Bermuda law and under the terms of the certificate of designations governing the Series C Non-Cumulative Preferred Shares, we may not lawfully declare or pay a dividend on the Series C Non-Cumulative Preferred Shares (even if such dividends have been previously declared) or effect any redemption of Series C Non-Cumulative Preferred Shares if there are reasonable grounds for believing that (i) we are or, after giving effect to the payment of dividends or redemption of shares (as applicable), would be unable to pay our liabilities as they become due, or (ii) the realizable value of our assets would be less than our liabilities, or (iii) we are or, after giving effect to such payment or redemption (as applicable), would be in breach of applicable individual or group solvency and liquidity requirements or applicable individual or group enhanced capital requirements or such other applicable rules, regulations or restrictions as may from time to time be issued or imposed by the BMA (or any successor agency or then-applicable regulatory authority) pursuant to the terms of the Insurance Act 1978 of Bermuda and related regulations (the "Insurance Act 1978"), or any successor legislation or then-applicable law. For a discussion of currently applicable regulations, see "Business Our Company Regulation" in our Annual Report on Form 10-K for the year ended December 31, 2011, incorporated herein by reference.

Variation or Exchange

At any time following a tax event or a capital disqualification event (as defined in "Description of the Series C Preferred Shares Variation or Exchange" in this prospectus supplement), we may, without the consent of any holders of the Series C Non-Cumulative Preferred Shares, vary the terms of, or exchange for new securities, the Series C Non-Cumulative Preferred Shares to maintain compliance with certain regulations applicable to us. No such variation of terms or securities in exchange shall change certain specified terms of the Series C Non-Cumulative Preferred Shares. See "Description of the Series C Non-Cumulative Preferred Shares Variation or Exchange" in this prospectus supplement.

Ranking

The Series C Non-Cumulative Preferred Shares:

will rank senior to our junior shares with respect to the payment of dividends and distributions upon our liquidation, dissolution or winding-up. Junior shares includes our common shares and any other class or series of shares that rank junior to the Series C Non-Cumulative Preferred Shares either as to the payment of dividends or as to the distribution of assets upon liquidation, dissolution or winding-up; and

will rank at least equally with each other class or series of shares ranking on parity with the Series C Non-Cumulative Preferred Shares as to dividends and distributions upon any liquidation or dissolution or winding-up of Arch Capital, which we refer to as parity shares.

S-6

Table of Contents

In February 2006, we issued \$200 million aggregate liquidation preference of our Series A Non-Cumulative Preferred Shares and, in May 2006, we issued \$125 million aggregate liquidation preference of our Series B Non-Cumulative Preferred Shares. As of the date of this prospectus supplement, the Series A Non-Cumulative Preferred Shares and the Series B Non-Cumulative Preferred Shares are our only outstanding shares or series of shares that are on parity with the Series C Non-Cumulative Preferred Shares with respect to the payment of dividends and distribution of assets upon a liquidation, dissolution or winding up of Arch Capital. We intend to use the net proceeds of this offering to redeem all of our outstanding Series A Non-Cumulative Preferred Shares. Any net proceeds in excess of the amount required to redeem the Series A Non-Cumulative Preferred Shares will be used to redeem the Series B Non-Cumulative Preferred Shares and/or for general corporate purposes. However, we may issue additional securities that rank equally with or senior to the Series C Non-Cumulative Preferred Shares without limitation. See "Risk Factors There is no limitation on our issuance of securities that rank equally with or senior to the Series C Non-Cumulative Preferred Shares."

During any dividend period, so long as any Series C Non-Cumulative Preferred Shares remain outstanding, unless the full dividends for the latest completed dividend period on all outstanding Series C Non-Cumulative Preferred Shares have been declared and paid:

no dividend shall be paid or declared on our common shares or other junior shares, other than a dividend payable solely in junior shares; and

no common shares or other junior shares shall be purchased, redeemed or otherwise acquired for consideration by us, 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, or (ii) through the use of the proceeds of a substantially contemporaneous sale of junior shares, in each case as permitted by the bye-laws of Arch Capital in effect on the date of issuance of the Series C Non-Cumulative Preferred Shares).

For any dividend period in which dividends are not paid in full upon the Series C Non-Cumulative Preferred Shares and any parity shares, all dividends declared for such dividend period with respect to the Series C Non-Cumulative Preferred Shares and such parity shares shall be declared on a pro rata basis. See "Description of the Series C Non-Cumulative Preferred Shares Dividends" in this prospectus supplement.

Table of Contents

Liquidation Rights

Upon any voluntary or involuntary liquidation, dissolution or winding-up of Arch Capital, holders of the Series C Non-Cumulative Preferred Shares and any parity shares are entitled to receive out of our assets available for distribution to shareholders, before any distribution is made to holders of common shares or other junior shares, a liquidating distribution in the amount of \$25 per Series C Non-Cumulative Preferred Share plus any declared and unpaid dividends, without accumulation of any undeclared dividends. Distributions will be made pro rata as to the Series C Non-Cumulative Preferred Shares and any parity shares and only to the extent of our assets, if any, that are available after satisfaction of all liabilities to creditors. See "Description of the Series C Non-Cumulative Preferred Shares Liquidation Rights" in this prospectus supplement.

Voting Rights

Holders of the Series C Non-Cumulative Preferred Shares will have no voting rights, except with respect to certain fundamental changes in the terms of the Series C Non-Cumulative Preferred Shares and in the case of certain dividend non-payments or as otherwise required by Bermuda law or the bye-laws of Arch Capital. See "Description of the Series C Non-Cumulative Preferred Shares Voting Rights" in this prospectus supplement.

Maturity

The Series C Non-Cumulative Preferred Shares do not have any maturity date, and we are not required to redeem the Series C Non-Cumulative Preferred Shares. Holders of the Series C Non-Cumulative Preferred Shares will have no right to have the Series C Non-Cumulative Preferred Shares redeemed. Accordingly, the Series C Non-Cumulative Preferred Shares will remain outstanding indefinitely, unless and until we decide to redeem them.

Preemptive Rights

Holders of the Series C Non-Cumulative Preferred Shares will have no preemptive rights.

Listing

We intend to apply to list the Series C Non-Cumulative Preferred Shares on the NYSE under the symbol "ARHPrC." If the application is approved, we expect trading to commence 30 days following the initial issuance of the Series C Non-Cumulative Preferred Shares.

Use of proceeds

We expect to receive approximately \$ million in net proceeds from the sale of the Series C Non-Cumulative Preferred Shares in this offering. We intend to use the net proceeds of this offering to redeem all of our outstanding Series A Non-Cumulative Preferred Shares. Any net proceeds in excess of the amount required to redeem the Series A Non-Cumulative Preferred Shares will be used to redeem the Series B Non-Cumulative Preferred Shares and/or for general corporate purposes. See "Use of Proceeds" in this prospectus supplement

Transfer Agent

American Stock Transfer & Trust Company.

Table of Contents

RISK FACTORS

An investment in the Series C Non-Cumulative Preferred Shares involves risks. Before making an investment decision, you should carefully consider the risks described in this prospectus supplement below and under "Cautionary Note Regarding Forward-Looking Statements," and the risks described in our Annual Report on Form 10-K for the year ended December 31, 2011, together with all of the other information appearing in this prospectus supplement, the accompanying prospectus or the documents incorporated by reference in this prospectus supplement, in light of your particular investment objectives and financial circumstances. In addition to such risk factors, there may be additional risks and uncertainties of which management is not aware or focused on or that management deems immaterial. Our business, financial condition or results of operations could be materially adversely affected by any of these risks. The trading price of our securities could decline due to any of these risks, and you may lose all or part of your investment.

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 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.

Table of Contents

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 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

Table of Contents

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 the Terrorism Risk Insurance Act of 2002, as amended under the Terrorism Risk Insurance Extension Act of 2005 and amended and extended again by the Terrorism Risk Insurance Program Reauthorization Act of 2007 ("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 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 National Association of Insurance Commissioners ("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

Table of Contents

regulatory reform. As part of its efforts to achieve equivalence under Solvency II, the BMA has implemented and imposed additional requirements on the individual companies it regulates, such as Arch Re Bermuda, and over the Arch group of insurance companies (the "Arch Group") pursuant to its powers as group supervisor. While the BMA regulates Arch Re Bermuda as a long-term and general business insurer under the Insurance Act 1978 in Bermuda, the impact of the BMA's insurance group supervision and insurance group solvency 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.

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 U.S. generally accepted accounting principles ("U.S. 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.

Table of Contents

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 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,

Table of Contents

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" in this prospectus supplement and "Management's Discussion and Analysis of Financial Condition and Results of Operations Natural and Man-Made Catastrophic Events" in our Annual Report on Form 10-K for the year ended December 31, 2011, incorporated herein by reference. 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" 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 retrocessionnaires 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.

Table of Contents

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 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 international financial reporting standards, 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 Enterprise Risk Management ("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

Table of Contents

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.

Our regulators have increased their focus on enterprise risk management. For example, key regulators, such as the BMA, the U.K. Financial Services Authority ("FSA") and the Central Bank of Ireland ("CBOI"), have all increased regulatory scrutiny in this area. In the U.S., 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. For a discussion of regulatory developments affecting the Company, see " 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" in this prospectus supplement and "Business Our Company Regulation" in our Annual Report on Form 10-K for the year ended December 31, 2011, incorporated herein by reference.

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,

Table of Contents

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" in our Annual Report on Form 10-K for the year ended December 31, 2011, incorporated herein by reference, 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 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.

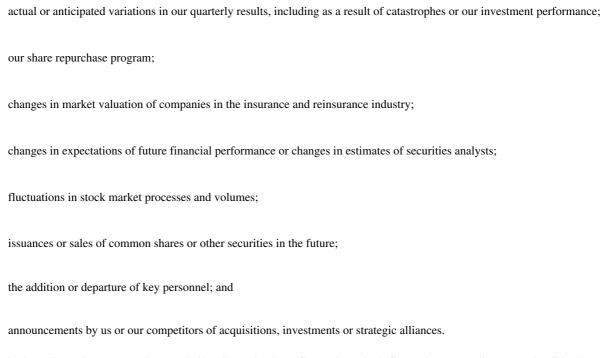
The preparation of consolidated financial statements requires us to make many estimates and judgments that affect the reported amounts of assets, liabilities (including reserves), revenues and expenses, and related disclosures of contingent liabilities. On an ongoing basis, we evaluate our estimates, 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

Table of Contents

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 March 23, 2012, our common shares closed at a price of \$36.50. 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:



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.

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.

Table of Contents

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 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 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.

Table of Contents

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 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

Table of Contents

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" in our Annual Report on Form 10-K for the year ended December 31, 2011, incorporated herein by reference). 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 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 Reinsurance Limited (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.

Table of Contents

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 equity securities we hold 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 those 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 Financial Condition and Results of Operations Financial Condition, Liquidity and Capital Resources Liquidity and Capital Resources" in our Annual Report on Form 10-K for the year ended December 31, 2011, incorporated herein by reference.

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

Table of Contents

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.

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;

Table of Contents

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 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 66²/₃% 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.

Table of Contents

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 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 Company, Arch Specialty Insurance Company, Arch Excess & Surplus Insurance Company and Arch Indemnity Insurance Company, write reinsurance and insurance in the U.S. These subsidiaries are subject to extensive regulation under state statutes which delegate regulatory, supervisory and administrative powers to state insurance commissioners. Such regulation generally is designed to protect policyholders rather than investors. In addition, the Canadian branch of Arch Insurance writes insurance in Canada and is subject to federal, as well as provincial and territorial, regulation in Canada.

Arch Insurance Europe 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 Ltd. 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,

Table of Contents

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 European Economic Area 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 on a stand alone basis in Bermuda. In addition, Arch Re Bermuda is the "designated insurer" of the Arch Group and is subject to group supervision and solvency oversight by the BMA pursuant to its authority as group supervisor. Bermuda insurance statutes and the regulations and policies of the BMA require Arch Re Bermuda and the Arch Group to, among other things:

maintain a minimum level of capital and surplus;

maintain individual and group enhanced capital requirement, general and long-term business solvency margins and a minimum liquidity ratio (applicable to Arch Re Bermuda's general business);

restrict dividends and distributions;

obtain prior approval regarding the ownership and transfer of shares;

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

file individual and group annual financial statements, annual statutory financial returns and annual capital and solvency returns; 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

Table of Contents

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 potential independence of Bermuda which is raised for discussion from time to time. 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 regulations 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 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" in our Annual Report on Form 10-K for the year ended December 31, 2011, incorporated herein by reference.

Table of Contents

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 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 Iordanou, 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

Table of Contents

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.

Risks Relating to the Series C Non-Cumulative Preferred Shares

General market conditions and unpredictable factors could adversely affect market prices for the Series C Non-Cumulative Preferred Shares.

There can be no assurance about the market prices for the Series C Non-Cumulative Preferred Shares. Several factors, many of which are beyond our control, will influence the fair value of the Series C Non-Cumulative Preferred Shares. Factors that might influence the fair value of the Series C Non-Cumulative Preferred Shares include, but are not limited to:

whether dividends have been declared and are likely to be declared on the Series C Non-Cumulative Preferred Shares from time to time;

our creditworthiness, financial condition, performance and prospects;

S-29

Table of Contents

whether the ratings on the Series C Non-Cumulative 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.

If you purchase Series C Non-Cumulative Preferred Shares, the Series C Non-Cumulative Preferred Shares may subsequently trade at a discount to the price that you paid for them.

Dividends on the Series C Non-Cumulative Preferred Shares are non-cumulative.

Dividends on the Series C Non-Cumulative 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 the Series C Non-Cumulative Preferred Shares, holders of the Series C Non-Cumulative 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 the Series C Non-Cumulative 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.

The Series C Non-Cumulative Preferred Shares are equity and are subordinate to our existing and future indebtedness.

The Series C Non-Cumulative Preferred Shares are equity interests and do not constitute indebtedness. As such, the Series C Non-Cumulative 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 debt was \$400.0 million, excluding the U.S. Federal Reserve's term asset-backed securities loan facility borrowings. We may incur additional debt in the future. Our existing and future indebtedness may restrict payments of dividends on the Series C Non-Cumulative Preferred Shares. Additionally, unlike indebtedness, where principal and interest would customarily be payable on specified due dates, in the case of preferred shares like the Series C Non-Cumulative 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.

You may be unable to sell your Series C Non-Cumulative Preferred Shares if an active trading market does not develop.

The Series C Non-Cumulative Preferred Shares are a new issue with no established trading market. Although we intend to apply to have the Series C Non-Cumulative Preferred Shares approved for listing on the NYSE, there may be little or no secondary market for the Series C Non-Cumulative Preferred Shares. Even if a secondary market for the Series C Non-Cumulative Preferred Shares develops, it may not provide significant liquidity, and transaction costs in any secondary market could be high. As a result, the difference between bid and ask prices in any secondary market could be substantial.

Table of Contents

The voting rights of holders of the Series C Non-Cumulative Preferred Shares are limited.

Holders of the Series C Non-Cumulative 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 the Series C Non-Cumulative Preferred Shares include the right to vote as a class on certain fundamental matters that affect the preference or special rights of the Series C Non-Cumulative Preferred Shares, as described under "Description of the Series C Non-Cumulative Preferred Shares Voting Rights" in this prospectus supplement. In addition, if dividends on the Series C Non-Cumulative 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 the Series C Non-Cumulative Preferred Shares, voting together as a single class with holders of any and all other series of voting preferred shares then outstanding, 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 described under "Description of the Series C Non-Cumulative Preferred Shares Voting Rights" in this prospectus supplement.

There is no limitation on our issuance of securities that rank equally with or senior to the Series C Non-Cumulative Preferred Shares.

In February 2006, we issued \$200 million aggregate liquidation preference of our Series A Non-Cumulative Preferred Shares and, in May 2006, we issued \$125 million aggregate liquidation preference of our Series B Non-Cumulative Preferred Shares. The Series A and Series B Non-Cumulative Preferred Shares are on parity with the Series C Non-Cumulative Preferred Shares with respect to the payment of dividends and the distribution of assets upon a liquidation, dissolution or winding up of Arch Capital. We intend to redeem all of our Series A Non-Cumulative Preferred Shares with the net proceeds from this offering and any net proceeds in excess of the amount required to redeem the Series A Non-Cumulative Preferred Shares will be used to redeem Series B Non-Cumulative Preferred Shares and/or for general corporate purposes. However, we may issue additional securities that rank equally with or senior to the Series C Non-Cumulative Preferred Shares may reduce the amount limitation. The issuance of securities ranking equally with or senior to the Series C Non-Cumulative Preferred Shares may reduce the amount available for dividends and the amount recoverable by holders of the Series C Non-Cumulative Preferred Shares in the event of a liquidation, dissolution or winding-up of ACGL.

The terms of the Series C Non-cumulative Preferred Shares may change without your consent or approval.

Under the terms of the Series C Non-Cumulative Preferred Shares, we may elect to vary the terms of the Series C Non-Cumulative Preferred Shares without your consent or approval, following the occurrence of a tax event or a capital disqualification event, which (i) in the case of a tax event, would eliminate the substantial probability that we or a successor corporation would be required to pay any additional amounts with respect to the Series C Non-Cumulative Preferred Shares as a result of a change in tax law or (ii) in the case of a capital disqualification event, would cause the Series C Non-Cumulative Preferred Shares to become securities that qualify as Tier 2 capital under then-applicable capital adequacy regulations imposed upon us by the BMA or any successor agency or then-applicable regulatory authority. However, our exercise of this right is subject to certain conditions, including that the terms considered in the aggregate cannot be less favorable, including from a financial perspective, to holders of the Series C Non-Cumulative Preferred Shares than the terms of the Series C Non-Cumulative Preferred Shares prior to being varied or exchanged. See "Description of the Series C Non-Cumulative Preferred Shares "Under Preferred Shares" in this prospectus supplement.

Table of Contents

We are able to redeem the Series C Non-Cumulative Preferred Shares beginning , 2017, and earlier under certain circumstances, but are under no obligation to do so. If the Series C Non-Cumulative Preferred Shares are redeemed, you may not be able to reinvest the redemption proceeds in a comparable security at a similar return on investment.

On and after , 2017, or, under certain circumstances, before , 2017, we may, subject to our ability to meet applicable regulatory standards, redeem the Series C Non-Cumulative Preferred Shares. See "Description of the Series C Non-Cumulative Preferred Shares Redemption" and "Description of the Series C Non-Cumulative Preferred Shares Tax Redemption" in this prospectus supplement. We have no obligation to redeem or repurchase the Series C Non-Cumulative Preferred Shares under any circumstances. If the Series C Non-Cumulative Preferred Shares are redeemed at a time when prevailing interest rates are lower than the dividend rate applicable to the Series C Non-Cumulative Preferred Shares, you may not be able to reinvest the redemption proceeds in an investment with a comparable a rate of return.

The Series C Non-Cumulative Preferred Shares ratings may be downgraded.

We have sought to obtain a rating for the Series C Non-Cumulative Preferred Shares. However, if any ratings are assigned to the Series C Non-Cumulative Preferred Shares in the future or if we issue other securities with a rating, such ratings, if they are lower than market expectations or are subsequently lowered or withdrawn, could adversely affect the market for or the market value of the Series C Non-Cumulative Preferred Shares. A rating is not a recommendation to purchase, sell or hold any particular security, including the Series C Non-Cumulative Preferred Shares. Ratings do not reflect market prices or suitability of a security for a particular investor and any future rating of the Series C Non-Cumulative Preferred Shares may not reflect all risks related to us and our business, or the structure or market value of the Series C Non-Cumulative Preferred Shares. Ratings only reflect the views of the rating agency or agencies issuing the ratings and such ratings could be revised downward or withdrawn entirely at the discretion of the issuing rating agency if in its judgment circumstances so warrant. Any such downward revision or withdrawal of a rating could have an adverse effect on the market price of the Series C Non-Cumulative Preferred Shares.

We may be impacted by regulatory initiatives affecting our Series A Non-Cumulative Preferred Shares and our Series B Non-Cumulative Preferred Shares. The regulatory capital treatment of the Series C Non-Cumulative Preferred Shares may not be what we anticipate.

Our Series A Non-Cumulative Preferred Shares and Series B Non-Cumulative Preferred Shares may not qualify as Tier 2 capital after January 1, 2024 under the BMA's group supervision rules, which come into force on January 1, 2013. Under current BMA regulations, our Series A Non-Cumulative Preferred Shares and Series B Non-Cumulative Preferred Shares will not be treated as Tier 2 capital after January 1, 2024 because the terms of such series of preferred shares do not meet the requirement that the payment of dividends would be cancelled or indefinitely deferred if our group enhanced capital requirement 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.

The Series C Non-Cumulative Preferred Shares are intended to constitute Tier 2 capital in accordance with the group requirements of the BMA which come into force on January 1, 2013. In order for the Series C Non-Cumulative Preferred Shares to qualify as Tier 2 capital, the terms of the Series C Non-Cumulative Preferred Shares reflect the criteria contained in the Insurance (Group Supervision) Rules 2011 published by the BMA in January 2012. No assurance can be made that the BMA will deem that the Series C Non-Cumulative Preferred Shares constitute Tier 2 capital under the group supervision rules. In the event that the BMA does not make such a determination, subject to the limitations described herein, we will be entitled to vary the terms of the Series C Non-Cumulative Preferred Shares or exchange the Series C Non-Cumulative Preferred Shares for new securities to

Table of Contents

achieve the desired regulatory capital treatment. See "Description of the Series C Non-Cumulative Preferred Shares Tax Redemption," and "Variation or Exchange" in this prospectus supplement.

Our ability to pay dividends may be limited by regulatory law and by the Certificate of Designations of the Series C Non-Cumulative Preferred Shares.

Under Bermuda law and under the terms of the certificate of designations governing the Series C Non-Cumulative Preferred Shares, we will not be permitted to pay dividends on the Series C Non-Cumulative Preferred Shares (even if such dividends have been previously declared) if there are reasonable grounds for believing that (i) we are or, after giving effect to the payment of dividends, would be unable to pay our liabilities as they become due, or (ii) the realizable value of our assets would thereby be less than our liabilities, or (iii) we are or, after such payment, would be in breach of applicable individual or group solvency and liquidity requirements or applicable individual or group enhanced capital requirements or such other applicable rules, regulations or restrictions as may from time to time be issued or imposed by the BMA (or any successor agency or then-applicable regulatory authority) pursuant to the terms of the Insurance Act 1978 or any successor legislation or then-applicable law.

A classification of the Series C Non-Cumulative Preferred Shares by the National Association of Insurance Commissioners may impact U.S. insurance companies that purchase Series C Non-Cumulative Preferred Shares.

The NAIC may from time to time, in its discretion, classify securities in insurers' portfolios as either debt, preferred equity or common equity instruments. The NAIC's written guidelines for classifying securities as debt, preferred equity or common equity include subjective factors that require the relevant NAIC examiner to exercise substantial judgment in making a classification. There is therefore a risk that the Series C Non-Cumulative Preferred Shares may be classified by NAIC as common equity instead of preferred equity. The NAIC classification determines the amount of risk based capital ("RBC") charges incurred by insurance companies in connection with an investment in a security. Securities classified as common equity by the NAIC carry RBC charges that can be significantly higher than the RBC requirement for debt or preferred equity. Therefore, any classification of the Series C Non-Cumulative Preferred Shares as common equity may adversely affect U.S. insurance companies that hold Series C Non-Cumulative Preferred Shares. In addition, a determination by the NAIC to classify the Series C Non-Cumulative Preferred Shares as common equity may adversely impact the trading of the Series C Non-Cumulative Preferred Shares in the secondary market.

Risks Relating to Taxation

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

ACGL and its non-U.S. subsidiaries intend to operate their business in a manner that will not cause them to be treated as engaged in a trade or business in the 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 or other non-U.S. affiliates. Some U.S.

Table of Contents

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 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 Obama 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., 112th) Congress appear to adopt the provision contained in the Obama 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.

If, as is intended, the Series C Non-Cumulative Preferred Shares are approved for listing on the NYSE, dividends received by individuals and other non-corporate United States Persons on the Series C Non-Cumulative Preferred Shares in taxable years beginning on or before December 31, 2012 should 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. There is a risk that dividends, if any, paid prior to the listing of the Series C Non-Cumulative Preferred Shares on the NYSE may not constitute qualified dividend income. All dividends received during taxable years

Table of Contents

beginning after December 31, 2012 will no longer be taxed at the rate applicable for long-term capital gains unless legislation is enacted providing otherwise. Under the Obama Administration's Fiscal Year 2013 Revenue Proposals, the preferential treatment of qualified dividend income would expire after December 31, 2012 for income that would be taxable in the 36 percent or 39.6 percent brackets. 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.

U.S. persons who hold our Series C Non-Cumulative Preferred Shares may be subject to U.S. income taxation at ordinary income rates on our undistributed earnings and profits.

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"). We do not believe that we are a passive foreign investment company. Since these determinations and beliefs are based upon legal and factual conclusions, no assurances can be given that the IRS or a court would concur with our conclusions. If we are a CFC or passive foreign investment company, U.S. persons who hold our Series C Non-Cumulative Preferred Shares may suffer adverse tax consequences. See "Certain Income Tax Considerations Taxation of Shareholders United States Taxation Controlled Foreign Corporation Rules" and "Certain Income Tax Considerations Taxation of Shareholders United States Toxation Passive Foreign Investment Companies" in this prospectus supplement.

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.

Table of Contents

USE OF PROCEEDS

Table of Contents

RATIO OF EARNINGS TO FIXED CHARGES AND PREFERENCE SHARE DIVIDENDS

The ratio of earnings to fixed charges for each of the periods set forth below is as follows:

	Year Ended December 31,				
	2011	2010	2009	2008	2007
Ratio of earnings to fixed charges(1)	14.4x	23.7x	24.8x	16.9x	33.0x
Ratio of earnings to fixed charges and preference share dividends(2)	8.5x	13.6x	13.3x	9.0x	16.9x

- (1) For purposes of determining the ratio of earnings to fixed charges, "earnings" consists of (a) income before income taxes, minus (b) equity in net income of investees, plus (c) fixed charges, and "fixed charges" consists of (a) interest and amortization on indebtedness, plus (b) estimate of interest component within rental expense net of sublease income.
- For purposes of determining the ratio of earnings to fixed charges and preference share dividends, "earnings" consists of (a) income before income taxes, minus (b) equity in net income of investees, plus (c) fixed charges, and "fixed charges and preference share dividends" consists of (a) interest and amortization on indebtedness, plus (b) dividends declared on our Series A Non-Cumulative Preferred Shares and our Series B Non-Cumulative Preferred Shares, plus (c) estimate of interest component within rental expense net of sublease income.

Table of Contents

CAPITALIZATION

The following table sets forth our capitalization at December 31, 2011 on:

an actual basis; and

an as adjusted basis to give effect to the issuance of the Series C Non-Cumulative Preferred Shares in this offering (assuming no exercise of the underwriters' over-allotment option) and to the application of net proceeds, as if such actions had occurred on December 31, 2011.

The following should be read in conjunction with our financial statements and the notes related thereto which are included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2011 incorporated herein by reference.

		December 31, 2011		
		Actual As adjuste (in thousands, except for		
		par value data)		
7.35% Senior Notes due 2034	\$	300,000	\$ 300,000	
Revolving credit facility borrowings due 2014		100,000	100,000	
Total debt(1)		400,000	400,000	
Shareholders' equity:				
Series A Non-Cumulative Preferred Shares (8,000,000 issued and outstanding, actual and outstanding, as adjusted)(2)	sued and	200,000		
	sued and	125,000		
Series C Non-Cumulative Preferred Shares offered hereby (issued and outstanding, as adjuste		120,000		
Common shares (\$0.0033 par value, 600,000,000 shares authorized, and 164,636,338 shares issued outstanding, actual and as adjusted(3)	l and	549		
Additional paid-in capital(4)		161,419		
Retained earnings		4,833,067		
Accumulated other comprehensive income consisting of appreciation in value of investments, net	of deferred	4,033,007		
income tax	or deterred	153,923		
Common shares held in treasury, at cost (shares: 30,277,993)		(845,472)		
Total shareholders' equity	\$	4,628,486		
Total capitalization	\$	5,028,486		
Selected ratios:				
Ratio of total debt to total capitalization		8.0%		
Ratio of total preferred shares to total capitalization		6.5%		
Ratio of total debt and total preferred shares to total capitalization		14.4%		

Does not include reserves or other balance sheet or non-balance-sheet liabilities, including contingent liabilities. See the sections entitled "Selected Historical Consolidated Financial and Operating Data" and "Management's Discussion and Analysis of Financial Condition and Results of Operations in our Annual Report on Form 10-K for the year ended December 31, 2011 incorporated herein by reference.

(2)

Assumes that of our Series A Non-Cumulative Preferred Shares (representing \$ million in aggregate liquidation preference) are redeemed and retired.

- (3) The number of common shares outstanding excludes the effect of 8,706,441 outstanding employee stock options and 298,425 restricted stock units outstanding at December 31, 2011.
- (4)

 Adjusted for estimated issue costs related to the offering of Series C Non-Cumulative Preferred Shares. Such amounts include estimated commissions of \$ million (based on % of the Series C Non-Cumulative Preferred Shares being placed to institutional investors) and estimated legal and accounting costs of \$ million.

Table of Contents

DESCRIPTION OF THE SERIES C NON-CUMULATIVE PREFERRED SHARES

The following description of the particular terms of the Series C Non-Cumulative Preferred Shares supplements the description of the general terms and provisions of the preference shares set forth under "Description of Arch Capital Preference Shares" in the accompanying prospectus. The following summary of the terms and provisions of the Series C Non-Cumulative Preferred Shares does not purport to be complete and is qualified in its entirety by reference to the pertinent sections of the bye-laws of Arch Capital, which we have previously filed with the Securities and Exchange Commission, or SEC, and the Certificate of Designations creating the Series C Non-Cumulative Preferred Shares, which will be included as an exhibit to documents that we file with the SEC. Terms used in this prospectus supplement that are otherwise not defined will have the meanings given to them in the accompanying prospectus. As used in this section, "we," "us," "our," "the Company," "Arch Capital" and "ACGL" mean Arch Capital Group Ltd. and do not include its subsidiaries.

General

In March 2012, the certificate of designations setting forth the specific rights, preferences, limitations and other terms of the Series C Non-Cumulative Preferred Shares was approved pursuant to authority delegated by the board of directors of the Company. The Series C Non-Cumulative Preferred Shares constitute a series of our authorized preference shares.

We will generally be able to pay dividends and distributions upon liquidation, dissolution or winding-up only out of lawfully available funds for such payment (i.e., after taking account of all indebtedness and other non-equity claims). The Series C Non-Cumulative Preferred Shares will be fully paid and non-assessable when issued, which means that holders will have paid their purchase price in full and that we may not ask them to surrender additional funds. Holders of the Series C Non-Cumulative Preferred Shares will not have preemptive or subscription rights to acquire more of our capital shares.

Holders will not have the right to convert Series C Non-Cumulative Preferred Shares into, or exchange Series C Non-Cumulative Preferred Shares for, shares of any other class or series of shares or other securities of ours. The Series C Non-Cumulative Preferred Shares have no stated maturity and will not be subject to any sinking fund, retirement fund or purchase fund or other obligation of Arch Capital to redeem or purchase the Series C Non-Cumulative Preferred Shares.

Ranking

The Series C Non-Cumulative Preferred Shares will rank senior to our junior shares (as defined herein) and equally with each other series of our preferred shares that we may issue with respect to the payment of dividends and distributions of assets upon liquidation, dissolution or winding-up. In February 2006, we issued \$200 million aggregate liquidation preference of our Series A Non-Cumulative Preferred Shares and, in May 2006, we issued \$125 million aggregate liquidation preference of our Series B Non-Cumulative Preferred Shares. The Series A and Series B Non-Cumulative Preferred Shares are on parity with the Series C Non-Cumulative Preferred Shares with respect to the payment of dividends and distribution of assets upon a liquidation, dissolution or winding up of Arch Capital. As of the date of this prospectus supplement, our Series A Non-Cumulative Preferred Shares and Series B Non-Cumulative Preferred Shares are our only outstanding series or class of shares that are on parity with the Series C Non-Cumulative Preferred Shares with respect to payment of dividends and the distribution of assets upon a liquidation, dissolution or winding-up of Arch Capital. We intend to use the net proceeds of this offering to redeem all of our outstanding Series A Non-Cumulative Preferred Shares and any net proceeds in excess of the amount required to redeem the Series A Non-Cumulative Preferred Shares will be used to redeem the Series B Non-Cumulative Preferred Shares and/or for general corporate purposes. However, we may

Table of Contents

issue additional securities that rank equally with or senior to the Series C Non-Cumulative Preferred Shares without limitation. Unless our shareholders otherwise provide, our board of directors may from time to time create and issue preference shares of other series and fix their relative rights, preferences and limitations.

Dividends

Dividends on the Series C Non-Cumulative Preferred Shares will not be mandatory. Holders of Series C Non-Cumulative Preferred Shares will be entitled to receive only when, as and if declared by the board of directors of Arch Capital or a duly authorized committee of the board, out of lawfully available funds for the payment of dividends under Bermuda law, non-cumulative cash dividends from the original issue date, quarterly on the last day of March, June, September and December of each year, commencing on June 30, 2012. These dividends will accrue with respect to a particular dividend period, on the liquidation preference amount of \$25 per share at an annual rate of \$\%\$. In the event that we issue additional Series C Non-Cumulative Preferred Shares after the original issue date, dividends on such additional shares may accrue from the original issue date or any other date we specify at the time such additional shares are issued.

Dividends, if so declared, will be payable to holders of record of the Series C Non-Cumulative Preferred Shares as they appear on our books on the applicable record date, which shall be March 15, June 15, September 15 and December 15, as applicable, immediately preceding the applicable dividend payment date or such other record date fixed by our board of directors (or a duly authorized committee of the board) that is not more than 60 nor less than 10 days prior to such dividend payment date (each, a "dividend record date"). These dividend record dates will apply regardless of whether a particular dividend record date is a business day.

A dividend period is the period from and including a dividend payment date to but excluding the next dividend payment date, except that the initial dividend period will commence on and include the original issue date of the Series C Non-Cumulative Preferred Shares and will end on and exclude the June 30, 2012 dividend payment date. Dividends payable on the Series C Non-Cumulative Preferred Shares will be computed on the basis of a 360-day year consisting of twelve 30-day months. If any date on which dividends would otherwise be payable is not a business day, then the dividend payment date will be the next succeeding business day with the same force and effect as if made on the original dividend payment date, and no additional dividends shall accrue on the amount so payable from such date to such next succeeding business day.

Dividends on the Series C Non-Cumulative Preferred Shares will not be cumulative. Accordingly, if the board of directors of Arch Capital, or a duly authorized committee of the board, does not declare a dividend on the Series C Non-Cumulative Preferred Shares payable in respect of any dividend period before the related dividend payment date, such dividend will not accrue and will not be payable and we will have no obligation to pay a dividend for that dividend period on the dividend payment date or at any future time, whether or not dividends are declared for any future dividend period on the Series C Non-Cumulative Preferred Shares or any other preferred shares we may issue in the future.

So long as any Series C Non-Cumulative Preferred Shares remain outstanding for any dividend period, unless the full dividends for the latest completed dividend period on all outstanding Series C Non-Cumulative Preferred Shares and parity shares have been declared and paid (or declared and a sum sufficient for the payment thereof has been set aside):

no dividend shall be paid or declared on our common shares, or any other junior shares (as defined below) (other than a dividend payable solely in junior shares); and

no common shares or other junior shares shall be purchased, redeemed or otherwise acquired for consideration by us, directly or indirectly (other than (i) as a result of a reclassification of

Table of Contents

junior shares for or into other junior shares, or the exchange or conversion of one junior share for or into another junior share, or (ii) through the use of the proceeds of a substantially contemporaneous sale of junior shares, in each case as permitted by the bye-laws of Arch Capital in effect on the date of issuance of the Series C Non-Cumulative Preferred Shares).

As used in this prospectus supplement, "junior shares" means any class or series of our capital shares that ranks junior to the Series C Non-Cumulative Preferred Shares either as to the payment of dividends or as to the distribution of assets upon any liquidation, dissolution or winding-up of Arch Capital. At present, junior shares consist of our common shares.

When dividends are not paid (or duly provided for) in full on any dividend payment date (or, in the case of parity shares (as defined below) having dividend payment dates different from the dividend payment dates pertaining to the Series C Non-Cumulative Preferred Shares, on a dividend payment date falling within the related dividend period for the Series C Non-Cumulative Preferred Shares) upon the Series C Non-Cumulative Preferred Shares and any parity shares, all dividends declared by the board of directors of Arch Capital or a duly authorized committee of the board upon the Series C Non-Cumulative Preferred Shares and all such parity shares and payable on such dividend payment date (or, in the case of parity shares having dividend payment dates different from the dividend payment dates pertaining to the Series C Non-Cumulative Preferred Shares) shall be declared by the board or such committee pro rata so that the respective amounts of such dividends shall bear the same ratio to each other as all declared but unpaid dividends per Series C Non-Cumulative Preferred Share and all parity shares payable on such dividend payment date (or, in the case of parity shares having dividend payment dates different from the dividend payment dates pertaining to the Series C Non-Cumulative Preferred Shares) bear to each other.

As used in this prospectus supplement, "parity shares" means any class or series of our capital shares that ranks equally with the Series C Non-Cumulative Preferred Shares with respect to the payment of dividends and in the distribution of assets on any liquidation, dissolution or winding-up of Arch Capital. As of the date of this prospectus supplement, our Series A Non-Cumulative Preferred Shares are our only outstanding class or series of shares that are parity shares.

Certain Restrictions on Payment of Dividends

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 any payments of dividends, redemption amounts or liquidation amounts with respect to our preferred shares.

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 subject to individual capital requirements, including, among other requirements, being 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

Table of Contents

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 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 as calculated using a risk based capital model called the Bermuda Solvency Capital Requirement model or an internal model approved by the BMA.

Under Bermuda law, we may not lawfully declare or pay a dividend on the Series C Non-Cumulative Preferred Shares (even if such dividends have been previously declared) if we have reasonable grounds for believing that (i) we are or, after giving effect to the payment of dividends, would be, unable to pay our liabilities as they become due, or (ii) the realizable value of our assets would thereby be less than our liabilities, or (iii) we are or, after such payment, would be in breach of applicable individual or group solvency and liquidity requirements or applicable individual or group enhanced capital requirements or such other applicable rules, regulations or restrictions as may from time to time be issued or imposed by the BMA (or any successor agency or then-applicable regulatory authority) pursuant to the terms of the Insurance Act 1978 or any successor legislation or then-applicable law. 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 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.

Payment of Additional Amounts

We will make all payments on the Series C Non-Cumulative Preferred Shares free and clear of and without withholding or deduction at source for, or on account of, any present or future taxes, fees, duties, assessments or governmental charges of whatever nature imposed or levied by or on behalf of Bermuda or any other jurisdiction in which we are organized (a "taxing jurisdiction") or any political subdivision or taxing authority thereof or therein, unless such taxes, fees, duties, assessments or governmental charges are required to be withheld or deducted by (x) the laws (or any regulations or rulings promulgated thereunder) of a taxing jurisdiction or any political subdivision or taxing authority thereof or therein or (y) an official position regarding the application, administration, interpretation or enforcement of any such laws, regulations or rulings (including, without limitation, a holding by a court of competent jurisdiction or by a taxing authority in a taxing jurisdiction or any political subdivision thereof). If a withholding or deduction at source is required, we will, subject to certain limitations and exceptions described below, pay to the holders of the Series C Non-Cumulative Preferred Shares such additional amounts as dividends as may be necessary so that every net payment made to such holders, after the withholding or deduction, will not be less than the amount provided for in the Certificate of Designations to be then due and payable.

Table of Contents

We will not be required to pay any additional amounts for or on account of:

- any tax, fee, duty, assessment or governmental charge of whatever nature that would not have been imposed but for the fact that such holder was a resident, citizen, domiciliary or national of, or engaged in business or maintained a permanent establishment or was physically present in, the relevant taxing jurisdiction or any political subdivision thereof or otherwise had some connection with the relevant taxing jurisdiction other than by reason of the mere ownership of, or receipt of payment under, such Series C Non-Cumulative Preferred Shares or any Series C Non-Cumulative Preferred Shares presented for payment more than 30 days after the Relevant Date. The "Relevant Date" means, in respect of any payment, the date on which such payment first becomes due and payable, but if the full amount of the moneys payable has not been received by the dividend disbursing agent on or prior to such due date, it means the first date on which, the full amount of such moneys having been so received and being available for payment to holders, notice to that effect shall have been duly given to the holders of the Series C Non-Cumulative Preferred Shares;
- 2. any estate, inheritance, gift, sale, transfer, personal property or similar tax, assessment or other governmental charge or any tax, assessment or other governmental charge that is payable otherwise than by withholding or deduction from payment of the liquidation preference;
- 3. any tax, fee, assessment or other governmental charge that is payable otherwise than by withholding or deduction from payment of the liquidation preference of or any dividends on the Series C Non-Cumulative Preferred Shares;
- any tax, fee, duty, assessment or other governmental charge that is imposed or withheld by reason of the failure by the holder of such Series C Non-Cumulative Preferred Shares to comply with any reasonable request by us addressed to the holder within 90 days of such request (a) to provide information concerning the nationality, citizenship, residence or identity of the holder or (b) to make any declaration or other similar claim or satisfy any information or reporting requirement, which is required or imposed by statute, treaty, regulation or administrative practice of the relevant taxing jurisdiction or any political subdivision thereof as a precondition to exemption from all or part of such tax, fee, duty, assessment or other governmental charge:
- 5. any withholding or deduction required to be made pursuant to any EU Directive on the taxation of savings implementing the conclusions of the ECOFIN Council meetings of 26-27 November 2000, 3 June 2003 or any law implementing or complying with, or introduced in order to conform to, such EU Directive; or
- 6. any combination of items (1), (2), (3), (4) and (5).

In addition, we will not pay additional amounts with respect to any payment on any such Series C Non-Cumulative Preferred Shares to any holder who is a fiduciary, partnership, limited liability company or other pass-thru entity other than the sole beneficial owner of such Series C Non-Cumulative Preferred Shares if such payment would be required by the laws of the relevant taxing jurisdiction (or any political subdivision or relevant taxing authority thereof or therein) to be included in the income for tax purposes of a beneficiary or partner or settlor with respect to such fiduciary or a member of such partnership, limited liability company or other pass-thru entity or a beneficial owner to the extent such beneficiary, partner or settlor would not have been entitled to such additional amounts had it been the holder of the Series C Non-Cumulative Preferred Shares.

If we become obligated to pay any additional amounts as a result of a change in tax law, we will also have the option to redeem the Series C Non-Cumulative Preferred Shares. See " Tax Redemption."

Table of Contents

Liquidation Rights

Upon any voluntary or involuntary liquidation, dissolution or winding-up of Arch Capital, holders of the Series C Non-Cumulative Preferred Shares and any parity shares are entitled to receive out of our assets available for distribution to shareholders, after satisfaction of liabilities to creditors, if any, but before any distribution of assets is made to holders of our common shares or any of our other shares ranking junior as to such a distribution to the Series C Non-Cumulative Preferred Shares, a liquidating distribution in the amount of \$25 per Series C Non-Cumulative Preferred Share plus any declared and unpaid dividends. If in any such distribution, our assets or proceeds thereof are not sufficient to pay the liquidating distribution, distributions will be made pro rata as to the Series C Non-Cumulative Preferred Shares and any parity shares but only to the extent we have assets available after satisfaction of all liabilities to creditors. Holders of the Series C Non-Cumulative Preferred Shares will not be entitled to any other amounts from us after they have received their full liquidation preference.

In any such distribution, if our assets are not sufficient to pay the liquidation preferences in full to all holders of the Series C Non-Cumulative Preferred Shares and all holders of any parity shares, the amounts paid to the holders of Series C Non-Cumulative Preferred Shares and to the holders of any parity shares will be paid pro rata in accordance with the respective aggregate liquidation preferences of those holders. In any such distribution, the "liquidation preference" of any holder of preferred shares means the amount payable to such holder in such distribution, including any declared but unpaid dividends (and any unpaid, accrued cumulative dividends in the case of any holder of shares on which dividends accrue on a cumulative basis). If the liquidation preference has been paid in full to all holders of the Series C Non-Cumulative Preferred Shares and any holders of parity shares, the holders of our other shares shall be entitled to receive all of our remaining assets according to their respective rights and preferences.

For purposes of this section, a consolidation, amalgamation, merger, arrangement, reincorporation, de-registration or reconstruction involving Arch Capital or the sale or transfer of all or substantially all of the shares or the property or business of Arch Capital will not be deemed to constitute a liquidation, dissolution or winding-up.

Redemption

Under Bermuda law, the source of funds that may be used by a company to pay amounts to shareholders on the redemption of their shares in respect of the nominal or par value of their shares is limited to (1) the capital paid up on the shares being redeemed, (2) funds of the company otherwise available for payment of dividends or distributions or (3) the proceeds of a new issuance of shares made for purposes of the redemption, and in respect of the premium over the nominal or par value of their shares is limited to (a) funds otherwise available for dividends or distributions or (b) out of the company's share premium account before the redemption date.

Under Bermuda law, no redemption may be made by us if there are reasonable grounds for believing that (i) we are or, after giving effect to redemption of shares, would be unable to pay our liabilities as they become due, or (ii) the realizable value of our assets would thereby be less than our liabilities, or (iii) we are or, after such redemption, would be in breach of applicable individual or group solvency and liquidity requirements or applicable individual or group enhanced capital requirements or such other applicable rules, regulations or restrictions as may from time to time be issued or imposed by the BMA (or any successor agency or then-applicable regulatory authority) pursuant to the terms of the Insurance Act 1978 or any successor legislation or then-applicable law. In addition, if the redemption price is to be paid out of funds otherwise available for dividends or distributions, no redemption may be made if the realizable value of our assets would thereby be less than the aggregate of our liabilities.

Table of Contents

Our ability to effect a redemption of the Series C Non-Cumulative Preferred Shares is subject to regulatory approval. Our ability to effect a redemption of the Series C Non-Cumulative Preferred Shares may be subject to the performance of our subsidiaries. Distribution to us from our insurance subsidiaries will also be subject to applicable insurance laws and regulatory constraints.

The Series C Non-Cumulative Preferred Shares are not subject to any mandatory redemption, sinking fund, retirement fund, purchase fund or other similar provisions.

Except as described below, the Series C Non-Cumulative Preferred Shares are not redeemable prior to , 2017. On and after that date, the Series C Non-Cumulative Preferred Shares will be redeemable at our option, in whole or in part, upon not less than 30 days nor more than 60 days notice, at a redemption price equal to \$25 per Series C Non-Cumulative Preferred Share, plus declared and unpaid dividends, if any, to, but excluding, the date of redemption, without accumulation of any undeclared dividends. Holders of the Series C Non-Cumulative Preferred Shares will have no right to require the redemption of the Series C Non-Cumulative Preferred Shares.

The Series C Non-Cumulative Preferred Shares are also redeemable at our option at any time prior to , 2017, if we have submitted to the holders of our common shares a proposal for an amalgamation, consolidation, merger, arrangement, reconstruction, reincorporation, de-registration or any other similar transaction involving Arch Capital that requires, or we have submitted any proposal for any other matter that, as a result of any change in Bermuda law after the date of this prospectus supplement (whether by enactment or official interpretation) that requires, in either case, a vote of the holders of the Series C Non-Cumulative Preferred Shares at the time outstanding, voting separately as a single class (alone or with one or more other classes or series of preferred shares). Our option to redeem the Series C Non-Cumulative Preferred Shares under such circumstances shall be for all of the outstanding Series C Non-Cumulative Preferred Shares upon not less than 30 nor more than 60 days prior written notice, and at a redemption price of \$26 per Series C Non-Cumulative Preferred Share, plus all declared and unpaid dividends, if any, to, but excluding, the date of redemption, without accumulation of any undeclared dividends.

The redemption price for any shares of Series C Non-Cumulative Preferred Shares shall be payable on the redemption date to the holders of such shares against book entry transfer or surrender of the certificate(s) evidencing such shares to us or our agent. Any declared but unpaid dividends payable on a redemption date that occurs subsequent to the dividend record date for a dividend period shall not be paid to the holder entitled to receive the redemption price on the redemption date, but rather shall be paid to the holder of record of the redeemed shares on such dividend record date relating to the dividend payment date provided in "Dividends" above.

Prior to delivering notice of redemption as provided below, we will file with our corporate records a certificate signed by one of our officers affirming our compliance with the redemption provisions under the Companies Act 1981 of Bermuda (the "Companies Act") relating to the Series C Non-Cumulative Preferred Shares, and stating that there are reasonable grounds for believing that we are, and after the redemption will be, able to pay our liabilities as they become due and that the redemption will not cause us to breach any provision of applicable Bermuda law or regulation. We will mail a copy of this certificate with the notice of any redemption.

If the Series C Non-Cumulative Preferred Shares are to be redeemed, the notice of redemption shall be given by first class mail to the holders of record of the Series C Non-Cumulative Preferred Shares to be redeemed, mailed not less than 30 days nor more than 60 days prior to the date fixed for redemption thereof (provided that, if the Series C Non-Cumulative Preferred Shares are held in book-entry form through The Depository Trust Company, or "DTC," we may give such notice in any manner permitted by DTC). Each notice of redemption will include a statement setting forth:

the redemption date;

Table of Contents

the number of Series C Non-Cumulative Preferred Shares to be redeemed and, if less than all the Series C Non-Cumulative Preferred Shares held by such holder are to be redeemed, the number of such Series C Non-Cumulative Preferred Shares to be redeemed from such holder:

the redemption price; and

that the shares should be delivered via book entry transfer or the place or places where holders may surrender certificates evidencing the Series C Non-Cumulative Preferred Shares for payment of the redemption price.

If notice of redemption of any Series C Non-Cumulative Preferred Shares has been given and if the funds necessary for such redemption have been set aside by us for the benefit of the holders of any Series C Non-Cumulative Preferred Shares so called for redemption, then, from and after the redemption date, no further dividends will be declared on such Series C Non-Cumulative Preferred Shares, such Series C Non-Cumulative Preferred Shares shall no longer be deemed outstanding and all rights of the holders of such Series C Non-Cumulative Preferred Shares will terminate, except the right to receive the redemption price, without interest.

In case of any redemption of only part of the Series C Non-Cumulative Preferred Shares at the time outstanding, the Series C Non-Cumulative Preferred Shares to be redeemed shall be selected either pro rata or in such other manner as we may determine to be fair and equitable.

Our ability to redeem the Series C Non-Cumulative Preferred Shares as described above or pursuant to a tax event, as described below under " Tax Redemption," will be limited by the terms of our agreements governing our indebtedness and by the provisions of other agreements that we may enter into.

Under Bermuda law, we may not redeem our preference shares (including the Series C Non-Cumulative Preferred Shares) at any time if we have reasonable grounds for believing that we are, or after the redemption would be, unable to pay our liabilities as they become due. Preference shares (including the Series C Non-Cumulative Preferred Shares) may not be redeemed except out of the capital paid up thereon or out of our funds that would otherwise be available for dividends or distributions or out of the proceeds of a new issue of shares made for the purpose of the redemption. The premium, if any, payable on redemption must be provided for out of our funds that would otherwise be available for dividends or distributions or out of our share premium account before the preference shares are redeemed. Preference shares also may not be redeemed if as a result of the redemption, our issued share capital would be reduced below the minimum capital specified in the memorandum of association of Arch Capital.

Tax Redemption

We will have the option to redeem for cash the Series C Non-Cumulative Preferred Shares at any time in whole or from time to time in part, upon not less than 30 days nor more than 60 days prior written notice in accordance with the procedures described under "Redemption" above, at a redemption price of \$25 per share plus declared and unpaid dividends, if any, to, but excluding, the date of redemption, without accumulation of any undeclared dividends, at any time following the occurrence of a tax event (as defined). A "tax event" means as a result of a "change in tax law" there is a substantial probability that we or any successor corporation would be required to pay any additional amounts with respect to the Series C Non-Cumulative Preferred Shares.

Prior to any redemption upon a tax event, we will be required to deliver a certificate signed by two executive officers of the Company to the transfer agent for the Series C Non-Cumulative Preferred Shares confirming that a tax event has occurred and is continuing (as reasonably determined by us).

Table of Contents

A "change in tax law" means (a) a change in or amendment to laws, regulations or rulings of any jurisdiction, political subdivision or taxing authority described in the next sentence, (b) a change in the official application or interpretation of those laws, regulations or rulings, (c) any execution of or amendment to any treaty affecting taxation to which any jurisdiction, political subdivision or taxing authority described in the next sentence is party after the date of this prospectus supplement, or (d) a decision rendered by a court of competent jurisdiction in Bermuda or any taxing jurisdiction or any political subdivision, whether or not such decision was rendered with respect to us. The jurisdictions, political subdivisions and taxing authorities referred to in the previous sentence are (a) Bermuda or any political subdivision or governmental authority of or in Bermuda with the power to tax, (b) any jurisdiction from or through which we or our dividend disbursing agent are making payments on the Series C Non-Cumulative Preferred Shares or any political subdivision or governmental authority of or in that jurisdiction with the power to tax or (c) any other jurisdiction in which Arch Capital or a successor corporation is organized or generally subject to taxation or any political subdivision or governmental authority of or in that jurisdiction with the power to tax.

In addition, we will have the option to redeem for cash any or all Series C Non-Cumulative Preferred Shares at any time in whole or from time to time in part, upon not less than 30 days nor more than 60 days prior written notice in accordance with the procedures set forth under "Redemption" above, at a redemption price of \$25 per share plus declared and unpaid dividends, if any, to, but excluding, the date of redemption, without accumulation of any undeclared dividends, if the entity formed by a consolidation, merger or amalgamation involving us or the entity to which we convey, transfer or lease substantially all our properties and assets is required to pay additional amounts in respect of any tax, assessment or governmental charge imposed on any holder of Series C Non-Cumulative Preferred Shares as a result of a change in tax law that occurred after the date of the consolidation, merger, amalgamation, conveyance, transfer or lease.

Variation or Exchange

At any time following a tax event or a capital disqualification event (as defined below), we may, without the consent of any holders of the Series C Non-Cumulative Preferred Shares, vary the terms of the Series C Non-Cumulative Preferred Shares or exchange the Series C Non-Cumulative Preferred Shares for new securities, which (i) in the case of a tax event, would eliminate the substantial probability that we or any successor corporation would be required to pay any additional amounts with respect to the Series C Non-Cumulative Preferred Shares as a result of a change in tax law or (ii) in the case of a capital disqualification event, would cause the Series C Non-Cumulative Preferred Shares to become securities that qualify as Tier 2 capital (where capital is subdivided into tiers) or its equivalent under then-applicable capital adequacy regulations (as defined below) imposed upon us by the BMA or any successor agency or then-applicable regulatory authority, including under the BMA's enhanced capital requirements, for purposes of determining the solvency margin, capital adequacy ratios or any other comparable ratios, regulatory capital resource or levels of Arch Capital or any member thereof. In either case, the terms of the varied securities or new securities considered in the aggregate cannot be less favorable, including from a financial perspective, to holders than the terms of the Series C Non-Cumulative Preferred Shares prior to being varied or exchanged (as reasonably determined by the Company); provided that no such variation of terms or securities received in exchange shall change the specified denominations, or any payment of dividend on, the redemption dates (other than any extension of the period during which an optional redemption may not be exercised by the Company) or currency of, the Series C Non-Cumulative Preferred Shares, reduce the liquidation preference thereof or the dividend payable thereon, lower the ranking of the securities or change the foregoing list of items that may not be so amended as part of such variation or exchange. Further, no such variation of terms or securities received in exchange shall impair the right of a holder of the securities to institute suit for the payment of any amounts due (as provided under the certificate of designations), but unpaid with respect to such holder's securities.

Table of Contents

Prior to any variation or exchange, we will be required to (i) receive an opinion of independent legal advisers of recognized standing to the effect that holders and beneficial owners of the Series C Non-Cumulative Preferred Shares (including as holders and beneficial owners of the varied or exchanged securities) will not recognize income, gain or loss for United States federal income tax purposes as a result of such variation or exchange and will be subject to United States federal income tax on the same amounts, in the same manner and at the same times as would have been the case had such variation or exchange not occurred; and (ii) deliver a certificate signed by two executive officers of the Company to the transfer agent for the Series C Non-Cumulative Preferred Shares confirming that (x) a capital disqualification event or a tax event has occurred and is continuing (as reasonably determined by the Company) and (y) that the terms of the varied or new securities, considered in the aggregate, are not less favorable, including from a financial perspective, to holders than the terms of the Series C Non-Cumulative Preferred Shares prior to being varied or exchanged (as reasonably determined by the Company).

Any variation or exchange of the Series C Non-Cumulative Preferred Shares described above will be made after notice is given to the holders of the Series C Non-Cumulative Preferred Shares not less than 30 nor more than 60 days prior to the date fixed for variation or exchange, as applicable.

As used in this prospectus supplement, (i) a "capital disqualification event" means the Series C Non-Cumulative Preferred Shares do not qualify, in whole or in part (including as a result of any transitional or grandfathering provisions or otherwise), for purposes of determining the solvency margin, capital adequacy ratio or any other comparable ratio, regulatory capital resource or level, of Arch Capital or any subsidiary thereof, where capital is subdivided into tiers, as Tier 2 capital securities under then-applicable capital adequacy regulations imposed upon us by the BMA or any successor agency or then-applicable regulatory authority (which would include, without limitation, our individual and group enhanced capital requirements under BMA capital regulations), except as a result of any applicable limitation on the amount of such capital; and (ii) "capital adequacy regulations" means the solvency margins, capital adequacy regulations or any other regulatory capital rules applicable to us from time to time on an individual or group basis pursuant to Bermuda law and/or the laws of any other relevant jurisdiction and which set out the requirements to be satisfied by financial instruments to qualify as solvency margin or additional solvency margin or regulatory capital (or any equivalent terminology employed by the then-applicable capital adequacy regulations).

Voting Rights

Except as provided below, the holders of the Series C Non-Cumulative Preferred Shares will have no voting rights.

Whenever dividends on any Series C Non-Cumulative Preferred Shares shall have not been declared and paid for the equivalent of six or more dividend periods, whether or not for consecutive dividend periods (a "nonpayment event"), the holders of the Series C Non-Cumulative Preferred Shares, voting together as a single class with holders of any and all other series of voting preferred shares (as defined below) then outstanding, will be entitled to vote for the election of a total of two additional members of the board of directors of Arch Capital (the "preferred shares directors"), provided that the election of any such directors shall not cause us to violate the corporate governance requirement of any exchange on which our securities may be listed or quoted that listed or quoted companies must have a majority of independent directors. In that event, the new directors shall be elected at a special meeting called at the request of the holders of record of at least 20% of the aggregate voting power of the Series C Non-Cumulative Preferred Shares or of any other series of voting preferred shares (unless such request is received less than 90 days before the date fixed for the next annual or special meeting of the shareholders of Arch Capital, in which event such election shall be held at such next annual or special meeting of shareholders), and at each subsequent annual meeting.

Table of Contents

As used in this prospectus supplement, "voting preferred shares" means any other class or series of our preferred shares ranking equally with the Series C Non-Cumulative Preferred Shares as to dividends and the distribution of assets upon liquidation, dissolution or winding-up of Arch Capital and upon which like voting rights have been conferred and are exercisable. Whether a plurality, majority or other portion of the Series C Non-Cumulative Preferred Shares and any other voting preferred shares have been voted in favor of any matter shall be determined by reference to the aggregate voting power, as determined under our bye-laws, of the Series C Non-Cumulative Preferred Shares and voting preferred shares voted.

If and when dividends for at least four dividend periods, whether or not consecutive, following a nonpayment event have been paid in full (or declared and a sum sufficient for such payment shall have been set aside), the holders of the Series C Non-Cumulative Preferred Shares shall be divested of the foregoing voting rights (subject to revesting in the event of each subsequent nonpayment event) and, if such voting rights for all other holders of voting preferred shares have terminated, the term of office of each preferred shares director so elected shall terminate and the number of directors on the board of directors of Arch Capital shall automatically decrease by two. In determining whether dividends have been paid for four dividend periods following a nonpayment event, we may take account of any dividend we elect to pay for such a dividend period after the regular dividend payment date for that period has passed.

Any preferred shares director may be removed at any time without cause by the holders of record of a majority of the aggregate voting power, as determined under our bye-laws, of Series C Non-Cumulative Preferred Shares and any other shares of voting preferred shares then outstanding (voting together as a single class) when they have the voting rights described above. So long as a nonpayment event shall continue, any vacancy in the office of a preferred shares director (other than prior to the initial election after a nonpayment event) may be filled by the written consent of the preferred shares director remaining in office, or if none remains in office, by a vote of the holders of record of a majority of the outstanding Series C Non-Cumulative Preferred Shares and any other shares of voting preferred shares then outstanding (voting together as a single class) when they have the voting rights described above. Any vote of shareholders to remove, or to fill a vacancy in the office of, a preferred shares director may be taken only at a special general meeting of such shareholders, called as provided above for an initial election of preferred shares director after a nonpayment event (unless such request is received less than 90 days before the date fixed for the next annual or special meeting of the shareholders of Arch Capital, in which event such election shall be held at such next annual or special general meeting of shareholders). The preferred shares directors shall each be entitled to one vote per director on any matter. Each preferred shares director elected at any special general meeting of shareholders or by written consent of the other preferred shares director shall hold office until the next annual meeting of the shareholders of Arch Capital if such office shall not have previously terminated as above provided.

The bye-laws of Arch Capital provide that all or any of the special rights attached to any class of shares (including the Series C Non-Cumulative Preferred Shares) issued may, whether or not the Company is being wound-up, be varied with the consent in writing of the holders of a majority of the voting power represented by the issued shares of that class or with the sanction of a resolution passed by a majority of the voting power represented by the votes cast at a separate general meeting of the holders of the shares of the class in accordance with the Companies Act. The bye-laws also provide that rights conferred upon the holders of the shares of any class (including the Series C Non-Cumulative Preferred Shares) issued with preferred or other rights shall not, unless otherwise expressly provided by the terms of issue of the shares of that class, be deemed to be varied by the creation or issue of further shares ranking *pari passu* therewith or senior thereto. The Companies Act provides that in certain circumstances, non-voting shares have the right to vote (for example without

Table of Contents

limitation, converting a limited liability company to unlimited liability company, discontinuance of a company from Bermuda, or conversion of preference shares into redeemable preference shares).

Notwithstanding the foregoing, our bye-laws contain a provision limiting the voting rights of any U.S. person, as defined in the Internal Revenue Code, who owns (directly, indirectly or constructively under the Code) shares with more than 9.9% of the total voting power of all shares entitled to vote generally at an election of directors to 9.9% of such voting power. See "Certain Income Tax Considerations Taxation of Shareholders Controlled Foreign Corporation Rules."

Without the consent of the holders of the Series C Non-Cumulative Preferred Shares, so long as such action does not affect the special rights, preferences, privileges and voting powers of the Series C Non-Cumulative Preferred Shares, taken as a whole, we may amend, alter, supplement or repeal any terms of the Series C Non-Cumulative Preferred Shares:

to cure any ambiguity, or to cure, correct or supplement any provision contained in the Certificate of Designations for the Series C Non-Cumulative Preferred Shares that may be defective or inconsistent; or

to make any provision with respect to matters or questions arising with respect to the Series C Non-Cumulative Preferred Shares that is not inconsistent with the provisions of the Certificate of Designations.

The foregoing voting provisions will not apply with respect to the Series C Non-Cumulative Preferred Shares if, at or prior to the time when the act with respect to which such vote would otherwise be required shall be effected, all outstanding Series C Non-Cumulative Preferred Shares shall have been redeemed or called for redemption upon proper notice and sufficient funds shall have been set aside by us for the benefit of the holders of Series C Non-Cumulative Preferred Shares to effect such redemption.

Conversion

Holders will not have the right to convert Series C Non-Cumulative Preferred Shares into, or exchange Series C Non-Cumulative Preferred Shares for, any other securities or property of Arch Capital.

Listing of the Series C Non-Cumulative Preferred Shares

We intend to apply to list the Series C Non-Cumulative Preferred Shares on the NYSE under the symbol "ARHPrC." If the application is approved, we expect trading to commence 30 days following the initial issuance of the Series C Non-Cumulative Preferred Shares.

Transfer Agent, Registrar, Dividend Disbursing Agent and Redemption Agent

American Stock Transfer & Trust Company will be the transfer agent, registrar, dividend disbursing agent and redemption agent for the Series C Non-Cumulative Preferred Shares.

Book-Entry: Delivery and Form

The Series C Non-Cumulative Preferred Shares will be represented by one or more global securities that will be deposited with and registered in the name of DTC or its nominee. This means that we will not issue certificates to you for the Series C Non-Cumulative Preferred Shares except in limited circumstances. The global securities will be issued to DTC, the depository for the Series C Non-Cumulative Preferred Shares, who will keep a computerized record of its participants (for example, your broker) whose clients have purchased the Series C Non-Cumulative Preferred Shares. Each participant will then keep a record of its clients. Unless exchanged in whole or in part for a

Table of Contents

certificated security, a global security may not be transferred. However, DTC, its nominees, and their successors may transfer a global security as a whole to one another. Beneficial interests in the global securities will be shown on, and transfers of the global securities will be made only through, records maintained by DTC and its participants.

DTC has advised us that it is a limited-purpose trust company organized under the New York Banking Law, a "banking organization" within the meaning of the New York Banking Law, a member of the United States Federal Reserve System, a "clearing corporation" within the meaning of the New York Uniform commercial Code and a "clearing agency" registered under the provisions of Section 17A of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). DTC holds securities that its participants (direct participants) deposit with DTC. DTC also records the settlement among direct participants of securities transactions, such as transfers and pledges, in deposited securities through computerized records for direct participants' accounts. This eliminates the need to exchange certificates. Direct participants include securities brokers and dealers, banks, trust companies, clearing corporations and certain other organizations. Neither we nor the underwriters take any responsibility for these operations or procedures, and you are urged to contact DTC or its participants directly to discuss these matters.

DTC's book-entry system is also used by other organizations such as securities brokers and dealers, banks and trust companies that work through a direct participant. The rules that apply to DTC and its participants are on file with the SEC.

DTC is owned by a number of its direct participants and by the NYSE, the American Stock Exchange, Inc. and the Financial Industry Regulatory Authority, Inc.

When you purchase Series C Non-Cumulative Preferred Shares through the DTC system, the purchases must be made by or through a direct participant, who will receive credit for the Series C Non-Cumulative Preferred Shares on DTC's records. Since you actually own the Series C Non-Cumulative Preferred Shares, you are the beneficial owner and your ownership interest will only be recorded in the direct (or indirect) participants' records. DTC has no knowledge of your individual ownership of the Series C Non-Cumulative Preferred Shares. DTC's records only show the identity of the direct participants and the amount of the Series C Non-Cumulative Preferred Shares held by or through them. You will not receive a written confirmation of your purchase or sale or any periodic account statement directly from DTC. You will receive these from your direct (or indirect) participant. Thus, the direct (or indirect) participants are responsible for keeping accurate account of the holdings of their customers like you.

We will wire dividend payments to DTC's nominee and we will treat DTC's nominee as the owner of the global securities for all purposes. Accordingly, we will have no direct responsibility or liability to pay amounts due on the global securities to you or any other beneficial owners in the global securities.

Any redemption notices will be sent by us directly to DTC, who will in turn inform the direct participants, who will then contact you as a beneficial holder.

It is DTC's current practice, upon receipt of any payment of dividends or liquidation amount, to credit direct participants' accounts on the payment date based on their holdings of beneficial interests in the global securities as shown on DTC's records. In addition, it is DTC's current practice to assign any consenting or voting rights to direct participants whose accounts are credited with preferred securities on a record date, by using an omnibus proxy. Payments by participants to owners of beneficial interests in the global securities, and voting by participants, will be based on the customary practices between the participants and owners of beneficial interests, as is the case with the Series C Non-Cumulative Preferred Shares held for the account of customers registered in "street name." However, payments will be the responsibility of the participants and not of DTC or us.

Table of Contents

Series C Non-Cumulative Preferred Shares represented by global securities will be exchangeable for certificated securities with the same terms in authorized denominations only if:

DTC is unwilling or unable to continue as depositary or if DTC ceases to be a clearing agency registered under applicable law and a successor depositary is not appointed by us within 90 days; or

we determine not to require all of the Series C Non-Cumulative Preferred Shares to be represented by global securities.

If the book-entry-only system is discontinued, the transfer agent will keep the registration books for the Series C Non-Cumulative Preferred Shares at its corporate office.

Table of Contents

CERTAIN INCOME TAX CONSIDERATIONS

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 Series C Non-Cumulative Preferred Shares, or of a person treated as a holder of our Series C Non-Cumulative Preferred 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 Series C Non-Cumulative Preferred Shares.

Taxation of ACGL

Bermuda

At the present time, there is no Bermuda income or profits tax, withholding tax, capital gains tax, capital transfer tax, estate duty or inheritance tax payable by ACGL or by our shareholders in respect of our shares. ACGL has obtained an assurance from the Minister of Finance of 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 or income, or computed on any capital asset, gain or appreciation or any tax in the nature of estate duty or inheritance tax, such tax shall not, until March 31, 2035, be applicable to us or to any of our operations or to our shares, debentures or other obligations except insofar as such tax applies to persons ordinarily resident in Bermuda or is payable by us in respect of real property owned or leased by us in Bermuda. 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 other 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 United States is not provided by the Code, or regulations or court decisions, there can be no assurance that the IRS will not contend successfully that ACGL or its non-U.S. subsidiaries are or have been engaged in a trade or business in the United States. A foreign corporation deemed to be so engaged would be subject to U.S. income tax, as well as the branch profits tax, on its income, which is treated as effectively connected with the conduct of that trade or business unless the corporation is entitled to relief under the permanent establishment provisions of a tax treaty. Such income tax, if imposed, would be based on effectively connected income computed in a manner generally analogous to that applied to the income of a domestic corporation, except that deductions and credits generally are not permitted unless the foreign corporation has timely filed a U.S. federal income tax return in accordance with applicable regulations. Penalties may be assessed for

Table of Contents

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 tax convention 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.

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 four percent for non-life insurance premiums and one percent for life insurance and all reinsurance premiums.

United Kingdom

Our European subsidiaries, Arch Insurance Company Europe and Arch Capital U.K. Ltd. ("Arch-U.K."), are companies incorporated in the U.K. and are therefore resident in the U.K. for U.K. corporation tax purposes and will be subject to U.K. corporate tax in their respective worldwide profits. The current rate of U.K. corporation tax is generally 30% on profits.

Taxation of Shareholders

The following summary sets forth certain United States federal income tax considerations related to the purchase, ownership and disposition of our Series C Non-Cumulative 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 Series C Non-Cumulative 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, persons owning (directly, indirectly or constructively) 10% or more of the total combined voting power or total value of the stock of ACGL,

Table of Contents

expatriates or persons who hold the Series C Non-Cumulative Preferred Shares as part of a hedging or conversion transaction or as part of a straddle, who may be subject to special rules or treatment under the Code. This discussion is based upon the Code, the Treasury regulations promulgated thereunder and any relevant administrative rulings or pronouncements or judicial decisions, all as in effect on the date of this prospectus supplement 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 alternative minimum tax or the tax laws of any state or local governments within the United States, or of any foreign government, that may be applicable to the Series C Non-Cumulative Preferred Shares or the shareholders. Persons considering making an investment in the Series C Non-Cumulative 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 Series C Non-Cumulative 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 Series C Non-Cumulative 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 Series C Non-Cumulative Preferred Shares should be properly classified as equity rather than debt for U.S. federal income tax purposes. Subject to the discussions below relating to the potential application of the CFC and PFIC rules, as defined below, cash distributions, if any, made with respect to our Series C Non-Cumulative 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 Series C Non-Cumulative 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 Series C Non-Cumulative 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 Series C Non-Cumulative Preferred Shares generally will be qualified dividend income, provided the Series C Non-Cumulative Preferred Shares are readily tradable on an established securities market in the United States in the year in which the shareholder receives

Table of Contents

the dividend (which will be the case for shares that are listed on the New York Stock Exchange) and ACGL is not considered to be a passive foreign investment company or "PFIC" in either the year of the distribution or the preceding taxable year. No assurance can be given that the Series C Non-Cumulative Preferred Shares will be so listed or otherwise be considered readily tradable on an established securities market in the United States. There is a risk that dividends, if any, paid prior to the listing of the Series C Non-Cumulative Preferred Shares on the NYSE may not constitute qualified dividend income. See "Taxation of Our U.S. Shareholders" below.

All dividends received during taxable years beginning after December 31, 2012 will no longer be taxed at the rate applicable for long-term capital gains unless legislation is enacted providing otherwise.

Distributions with respect to the Series C Non-Cumulative 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 Series C Non-Cumulative Preferred Shares exceed our earnings and profits (as computed using U.S. tax principles), they will be treated first as a return of the U.S. Holder's basis in our Series C Non-Cumulative Preferred Shares to the extent thereof, and then as gain from the sale of a capital asset.

Sale, Exchange or Other Disposition. Subject to the discussions below relating to the potential application of the CFC and PFIC rules, holders of Series C Non-Cumulative Preferred Shares generally will recognize capital gain or loss for U.S. federal income tax purposes on the sale, exchange or disposition of Series C Non-Cumulative Preferred Shares, as applicable.

Redemption of Series C Non-Cumulative Preferred Shares. A redemption of the Series C Non-Cumulative 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 (each as described below). 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.

Medicare Contribution Tax. 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 Series C Non-Cumulative 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).

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

Table of Contents

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 does not cause us or any of our subsidiaries to be subject to U.S. federal income tax. Such status also has no adverse U.S. federal income tax consequences for any U.S. Holder that is considered to own less than 10% of the total combined voting power of our shares or those of our foreign subsidiaries. Only U.S. Holders that are considered to own 10% or more of the total combined voting power of our shares or those of our foreign subsidiaries (taking into account shares actually owned by such U.S. Holder as well as shares attributed to such U.S. Holder under the Code or the regulations there under) (a "10% U.S. Voting Shareholder") is affected by our status as a CFC. The Series C Non-Cumulative 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 Series C Non-Cumulative Preferred 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 Series C Non-Cumulative 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 will be subject to current U.S. federal income taxation (at ordinary income tax rates) to the extent of all or a portion of the undistributed earnings and profits of ACGL and our subsidiaries attributable to "subpart F income" (including certain insurance premium income and investment income) and may be taxable at ordinary income tax rates on any gain realized on a sale or other disposition (including by way of repurchase or liquidation) of our shares to the extent of the current and accumulated earnings and profits attributable to such shares.

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

Related Person Insurance Income Rules

Generally, we do not expect the gross "related person insurance income" ("RPII") of any of our non-U.S. subsidiaries to equal or exceed 20% of its gross insurance income in any taxable year for the foreseeable future and do not expect the direct or indirect insureds (and related persons) of any such subsidiary to directly or indirectly own 20% or more of either the voting power or value of our stock. Consequently, we do not expect any U.S. person owning Series C Non-Cumulative 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 that is a 10% U.S. Voting Shareholder to treat certain gains attributable to the sale, exchange or disposition of Series C Non-Cumulative 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

Table of Contents

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. Voting Shareholder because ACGL is not directly engaged in the insurance business. There can be no assurance, however, that the IRS will interpret the proposed regulations in this manner or that the Treasury Department will not take the position that Section 1248 and the requirement to file Form 5471 will apply to dispositions of our Series C Non-Cumulative Preferred Shares.

If the IRS or U.S. Treasury Department were to make Section 1248 and the Form 5471 filing requirement applicable to the sale of our Series C Non-Cumulative Preferred Shares, we would notify shareholders that Section 1248 of the Code and the requirement to file Form 5471 will apply to dispositions of our Series C Non-Cumulative Preferred 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 Series C Non-Cumulative Preferred 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 taxable at ordinary income tax rates and subject to a penalty tax at the time of their sale or disposition at a gain of (or receipt of an "excess distribution" with respect to) their Series C Non-Cumulative Preferred Shares. In addition, a dividend paid by a PFIC is not eligible for the reduced rate of tax on qualified dividend income. 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 or other disposition) 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 or "mark-to-market" 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 the 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

Table of Contents

is a PFIC, such foreign corporation shall be treated as if it "received directly its proportionate share of the income" and as if it "held its proportionate share of the assets" of any other corporation in which it owns at least 25% of the stock. We believe that we are not a PFIC, and we will use reasonable best efforts to cause us and each of our non-U.S. insurance subsidiaries not to constitute a PFIC.

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

Information Reporting and Backup Withholding

Unless a U.S. Holder is an exempt recipient, such as a corporation, payments on Series C Non-Cumulative Preferred Shares and the proceeds received from the sale of Series C Non-Cumulative Preferred Shares may be subject to information reporting and may also be subject to U.S. federal backup withholding tax if such U.S. Holder fails to supply an accurate taxpayer identification number or otherwise fails to comply with applicable U.S. information reporting or certification requirements. Any amounts so withheld generally will be allowed as a credit against the U.S. Holder's U.S. federal income tax liability (and may entitle such holder to a refund), provided that the required information is timely furnished to the IRS.

Under Section 6038D of the Code, certain U.S. Holders who are individuals may be required to report information relating to an interest in Series C Non-Cumulative Preferred Shares, subject to certain exceptions (including an exception for Series C Non-Cumulative Preferred Shares held in accounts maintained by certain financial institutions). U.S. Holders should consult their tax advisors regarding the potential application of this information reporting requirement to their ownership of Series C Non-Cumulative Preferred Shares.

United States Taxation of Non-U.S. Shareholders

Taxation of Dividends

Cash distributions, if any, made with respect to Series C Non-Cumulative 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 Series C Non-Cumulative 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 such Series C Non-Cumulative Preferred Shares 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 Series C Non-Cumulative Preferred Shares will not be subject to U.S. information reporting or backup withholding with respect to dispositions of Series C Non-Cumulative Preferred 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 Series C Non-Cumulative 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.

Table of Contents

UNDERWRITING

Arch Capital Group Ltd. has entered into a purchase agreement with Wells Fargo Securities, LLC, Merrill Lynch, Pierce, Fenner & Smith Incorporated, Morgan Stanley & Co. LLC and UBS Securities LLC, as representatives of the underwriters named below. Subject to the terms and conditions described in a purchase agreement among us and the underwriters, we have agreed to sell to the underwriters, and the underwriters severally have agreed to purchase from us, the number of shares listed opposite their names below.

Number of
Series C Non-Cumulative
Preferred Shares

The underwriters have agreed to purchase all of the Series C Non-Cumulative Preferred Shares sold under the purchase agreement, including pursuant to the over-allotment option described below (if exercised), if any of these Series C Non-Cumulative Preferred Shares are purchased. If an underwriter defaults, the purchase agreement provides that the purchase commitments of the non-defaulting underwriters may be increased or the purchase agreement may be terminated. The closings for the sale of Series C Non-Cumulative Preferred Shares to be purchased by the underwriters are conditioned on one another.

We have granted to the underwriters an option, exercisable for 30 days from the date of this prospectus supplement, to purchase up to additional Series C Non-Cumulative Preferred Shares at the public offering price less the underwriting discount described below. The underwriters may exercise this option solely for the purpose of covering over-allotments, if any, in connection with this offering. To the extent the option is exercised, each underwriter must purchase a number of additional Series C Non-Cumulative Preferred Shares approximately proportionate to that underwriter's initial purchase commitment.

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act of 1933, as amended, or to contribute to payments the underwriters may be required to make in respect of those liabilities.

The underwriters are offering the Series C Non-Cumulative Preferred Shares, subject to prior sale, when, as and if issued to and accepted by them, subject to approval of legal matters by their counsel, including the validity of the shares, and other conditions contained in the purchase agreement, such as the receipt by the underwriters of officer's certificates and legal opinions. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

Table of Contents

Commissions and Discounts

The representatives have advised us that the underwriters propose initially to offer the Series C Non-Cumulative Preferred Shares to the public at the public offering price on the cover page of this prospectus supplement and to dealers at that price less a concession not in excess of \$ per Series C Non-Cumulative Preferred Share. The underwriters may allow, and the dealers may reallow, a discount not in excess of \$ per Series C Non-Cumulative Preferred Share to other dealers. After commencement of this offering, the public offering price, concessions and discount may be changed.

The following table shows the public offering price, underwriting discount and proceeds before expenses to ACGL.

		Total	Total
	Per Share	(Without Option)(2)	(With Option)(2)
Public offering price			_
Underwriting discount(1)			
Proceeds, before expenses, to ACGL(1)			

- With respect to sales made by the underwriters to certain institutions, the underwriting discount will be \$ per Series C Non-Cumulative Preferred Share and, with respect to such sales only, the total underwriting discount will be less than the amount set forth in the table above and the proceeds to us will be greater than the amount set forth in the table above.
- The underwriters may also purchase up to an additional Series C Non-Cumulative Preferred Shares from us at the public offering price, less the underwriting discount, within 30 days from the date of this prospectus supplement to cover over-allotments, if any.

The expenses of the offering, not including the underwriting discount, are estimated at approximately \$ million and are payable by ACGL.

No Sales of Similar Securities

We have agreed, with exceptions, not to sell or issue any Series C Non-Cumulative Preferred Shares (or any securities convertible into Series C Non-Cumulative Preferred Shares) for 30 days after the date of this prospectus supplement without first obtaining the written consent of the representatives. Specifically, we have agreed with the representatives not to directly or indirectly:

offer, pledge, sell, contract to sell, sell any option or contract to purchase, grant any option, right or warrant for the sale of, or otherwise dispose of or transfer any Series C Non-Cumulative Preferred Shares (or any securities convertible into Series C Non-Cumulative Preferred Shares), or

enter into any swap or any other agreement or any transaction that transfers, in whole or in part, directly or indirectly, the economic consequence of ownership of any Series C Non-Cumulative Preferred Shares, whether any such swap or transaction is to be settled by delivery of Series C Non-Cumulative Preferred Shares or other securities, in cash or otherwise.

This lockup provision applies to Series C Non-Cumulative Preferred Shares and to securities convertible into or exchangeable or exercisable for Series C Non-Cumulative Preferred Shares but does not apply to the sale of additional Series C Non-Cumulative Preferred Shares to the underwriters pursuant to their over-allotment option described above.

Listing on the NYSE

The Series C Non-Cumulative Preferred Shares are a new issue of securities with no established trading market. We intend to apply to list the Series C Non-Cumulative Preferred Shares on the NYSE

Table of Contents

under the symbol "ARHPrC." If the application is approved, we expect trading to commence 30 days following the initial issuance of the Series C Non-Cumulative Preferred Shares. The underwriters have advised us that they presently intend to make a market in the Series C Non-Cumulative Preferred Shares. However, they are under no obligation to do so and may discontinue any market-making activities at any time without any notice. We cannot assure the liquidity of the trading market for the Series C Non-Cumulative Preferred Shares or that an active public market for the Series C Non-Cumulative Preferred Shares will develop. If an active public trading market for the Series C Non-Cumulative Preferred Shares may be adversely affected. If the Series C Non-Cumulative Preferred Shares are traded, they may trade at a discount from the initial offering price, depending on prevailing interest rates, the market for similar securities, our performance and other factors.

Price Stabilization, Short Positions

The underwriters may engage in over-allotment and stabilizing transactions or purchases for the purpose of pegging, fixing or maintaining the price of the Series C Non-Cumulative Preferred Shares in accordance with Regulation M under the Exchange Act:

Over-allotment involves sales by the underwriters of Series C Non-Cumulative Preferred Shares in excess of the number of Series C Non-Cumulative Preferred Shares the underwriters are obligated to purchase, which creates a short position. The underwriters may also make "naked" short sales of Series C Non-Cumulative Preferred Shares in excess of the overallotment option. The underwriters must close out any naked short position by purchasing Series C Non-Cumulative Preferred Shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there could be downward pressure on the price of the Series C Non-Cumulative Preferred Shares in the open market after pricing that could adversely affect investors who purchase in the offering. Covered short sales involves sales by the underwriters of Series C Non-Cumulative Preferred Shares not in excess of the underwriters' over-allotment described above. The underwriters may close out any covered short position by either exercising their over-allotment option or purchasing the Series C Non-Cumulative Preferred Shares in the open market. In determining the source of Series C Non-Cumulative Preferred Shares available in the open market as compared to the price which they may purchase Series C Non-Cumulative Preferred Shares through the over-allotment option.

Stabilizing transactions permit bids to purchase the Series C Non-Cumulative Preferred Shares so long as the stabilizing bids do not exceed a specified maximum. These stabilizing transactions may have the effect of raising or maintaining the market price of the Series C Non-Cumulative Preferred Shares or preventing or retarding a decline in the market price of the Series C Non-Cumulative Preferred Shares. As a result, the price of the Series C Non-Cumulative Preferred Shares may be higher than the price that might otherwise exist in the open market. These transactions, if commenced, may be discontinued at any time.

Neither we nor any of the underwriters makes any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of the Series C Non-Cumulative Preferred Shares. In addition, neither we nor any of the underwriters make any representation that the representatives or the lead managers will engage in these transactions or that these transactions, once commenced, will not be discontinued without notice.

Table of Contents

Delivery of Shares

We currently expect to deliver Series C Non-Cumulative Preferred Shares offered hereby, in book entry form only, through the facilities of The Depository Trust Company against payment on or about the date which will be the fifth business day following the date of the pricing of the Series C Non-Cumulative Preferred Shares offered hereby ("T+5"). Under Rule 15c6-1 of the Exchange Act, trades in the secondary market generally are required to settle in three business days, unless the parties to a trade expressly agree otherwise. Accordingly, purchasers who wish to trade the Series C Non-Cumulative Preferred Shares on the date of pricing or another day which is more than three business days prior to settlement will be required to specify alternative settlement arrangements to prevent a failed settlement.

Other Relationships

From time to time, the underwriters and their respective affiliates have directly or indirectly provided investment and/or commercial banking services to us for which they have received customary compensation and expense reimbursement. The underwriters and their respective affiliates may in the future provide similar services to us.

In addition, in the ordinary course of their various business activities, the underwriters and their respective affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers, and such investment and securities activities may involve securities and instruments of ours or our affiliates. Certain of the underwriters and their affiliates that have a lending relationship with us routinely hedge their credit exposure to us consistent with their customary risk management policies. Typically, such underwriters and their affiliates would hedge such exposure by entering into transactions which consist of either the purchase of credit default swaps or the creation of short positions in our securities, including potentially the Series C Non-Cumulative Preferred Shares offered hereby. Any such short positions could adversely affect future trading prices of the Series C Non-Cumulative Preferred Shares offered hereby. The underwriters and their respective affiliates may also make investment recommendations or publish or express independent research views in respect of such securities or financial instruments and may at any time hold, or recommend to clients that they acquire, long or short positions in such securities and instruments.

Selling Restrictions

Notice to Prospective Investors in the European Economic Area

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a "Relevant Member State"), each underwriter has represented and agreed that with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State (the "Relevant Implementation Date") it has not made and will not make an offer of Series C Non-Cumulative Preferred Shares which are the subject of the offering contemplated by this prospectus supplement and the accompanying prospectus to the public in that Relevant Member State other than:

- (a) to any legal entity which is a qualified investor as defined in the Prospectus Directive;
- (b)
 to fewer than 100 or, if the Relevant Member State has implemented the relevant provision of the 2010 PD Amending
 Directive, 150, natural or legal persons (other than qualified investors as defined in the Prospectus Directive), as permitted
 under the Prospectus Directive, subject to obtaining the prior consent of the Representatives for any such offer; or
- in any other circumstances falling within Article 3(2) of the Prospectus Directive,

Table of Contents

provided that no such offer of Series C Non-Cumulative Preferred Shares shall require the Company or any underwriter to publish a prospectus pursuant to Article 3 of the Prospectus Directive or supplement a prospectus pursuant to Article 16 of the Prospectus Directive. For the purposes of this provision, the expression an "offer of Series C Non-Cumulative Preferred Shares to the public" in relation to any Series C Non-Cumulative Preferred Shares in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the Series C Non-Cumulative Preferred Shares to be offered so as to enable an investor to decide to purchase or subscribe the Series C Non-Cumulative Preferred Shares, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State.

This prospectus supplement and accompanying prospectus have been prepared on the basis that any offer of Series C Non-Cumulative Preferred Shares in any Member State of the European Economic Area which has implemented the Prospectus Directive (each, a "Relevant Member State") will be made pursuant to an exemption under the Prospectus Directive from the requirement to publish a prospectus for offers of Series C Non-Cumulative Preferred Shares. Accordingly any person making or intending to make an offer in that Relevant Member State of Series C Non-Cumulative Preferred Shares which are the subject of the placement contemplated in this prospectus supplement and the accompanying prospectus may only do so in circumstances in which no obligation arises for the Company or any of the underwriters to publish a prospectus pursuant to Article 3 of the Prospectus Directive, in each case, in relation to such offer. Neither the Company nor the underwriters have authorised, nor do they authorise, the making of any offer of Series C Non-Cumulative Preferred Shares in circumstances in which an obligation arises for the Company or the underwriters to publish a prospectus for such offer. The expression "Prospectus Directive" means Directive 2003/71/EC (and amendments thereto, including the 2010 PD Amending Directive, to the extent implemented in the Relevant Member State), and includes any relevant implementing measure in the Relevant Member State and the expression "2010 PD Amending Directive" means Directive 2010/73/EU.

Notice to Prospective Investors in the United Kingdom

This prospectus supplement and the accompanying prospectus are only being distributed to, and are only directed at, (1) persons who are outside the United Kingdom or (2) investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the "Order") or (3) high net worth entities, and other persons to whom it may lawfully be communicated, falling within Article 49(2)(a) to (d) of the Order (each such person being referred to as a "relevant person"). The Series C Non-Cumulative Preferred Shares are only available to, and any invitation, offer or agreement to subscribe, purchase or otherwise acquire the Series C Non-Cumulative Preferred Shares will be engaged in only with, relevant persons. Any person who is not a relevant person should not act or rely on this prospectus supplement or the accompanying prospectus or any of their contents.

Each underwriter has represented and agreed that:

- (a)

 it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Markets Act 2000 (the "FSMA")) in connection with the issue or sale of the Series C Non-Cumulative Preferred Shares in circumstances in which Section 21(1) of the FSMA does not apply to the Company; and
- (b) it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the Series C Non-Cumulative Preferred Shares in, from or otherwise involving the United Kingdom.

Table of Contents

LEGAL MATTERS

Certain legal matters will be passed upon for us by Cahill Gordon & Reindel LLP, New York, New York. The validity of the Series C Non-Cumulative Preferred Shares will be passed upon for us by Conyers Dill & Pearman Limited, Hamilton, Bermuda. Certain legal matters will be passed upon for the underwriters by Willkie Farr & Gallagher LLP, New York, New York.

Table of Contents

EXPERTS

The financial statements and management's assessment of the effectiveness of internal control over financial reporting (which is included in Management's Report on Internal Control over Financial Reporting) incorporated in this prospectus supplement by reference to the Annual Report on Form 10-K for the year ended December 31, 2011 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

S-66

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 prospectus supplement, including the documents incorporated herein by reference 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 prospectus supplement 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 and elsewhere in this prospectus supplement, including, without limitation, the section entitled "Risk Factors", and in our periodic reports filed with the Securities and Exchange Commission, 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;

Table of Contents

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;

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 our Annual Report on Form 10-K for the fiscal year ended December 31, 2011, 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.

S-68

Table of Contents

WHERE YOU CAN FIND ADDITIONAL INFORMATION

As required by law, we file reports, proxy statements and other information with the SEC. These reports, proxy statements and other information contain additional information about us. You can inspect and copy these materials at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. You can obtain information about the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC maintains an Internet website that contains reports, proxy and information statements and other information regarding companies that file electronically with the SEC. The SEC's Internet address is http://www.sec.gov. You can also inspect these materials at the offices of the NASDAQ Stock Market, 1735 K Street, N.W., Washington, D.C. 20006.

The SEC allows us to "incorporate by reference" information into this prospectus supplement in addition to the information incorporated by reference in the accompanying prospectus, which means that we can disclose important information by referring you to another document filed separately with the SEC. This information incorporated by reference is considered part of this prospectus supplement, except to the extent that the information is superseded by information in this prospectus supplement. This prospectus supplement incorporates by reference

our Annual Report on Form 10-K for the year ended December 31, 2011;

our Definitive Proxy Statement on Schedule 14A filed on March 22, 2011 (other than the sections entitled "Election of Directors Report of the Compensation Committee of the Board of Directors," and " Report of the Audit Committee of the Board of Directors"); and

our Current Report on Form 8-K filed on March 2, 2012.

We are also incorporating by reference the information contained in all other documents that we file with the SEC between the date of this prospectus supplement and the earlier of the termination of this offering and the time that all of the Series C Non-Cumulative Preferred Shares offered hereby are sold. The information contained in any of these documents will be considered part of this prospectus supplement from the date these documents are filed.

Any statement contained in this prospectus supplement or in a document incorporated or deemed to be incorporated by reference herein will be deemed to be modified or superseded for purposes of this prospectus supplement to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any statement so modified or superseded will not be deemed, except as so modified or superseded, to constitute a part of this prospectus supplement.

If you would like to receive a copy of any document incorporated by reference into this prospectus supplement (which will not include any of the exhibits to the document other than those exhibits that are themselves specifically incorporated by reference into this prospectus supplement), you should call or write to Arch Capital Group Ltd., Clarendon House, 2 Church Street, Hamilton HM 11, Bermuda, Attention: Secretary (telephone (441) 295-1422). We will provide these documents, without charge, by first class mail.

Our common shares are quoted on the NASDAQ Global Select Market. We intend to apply to list the Series C Non-Cumulative Preferred Shares on the NYSE under the symbol "ARHPrC."

Table of Contents

PROSPECTUS

ARCH CAPITAL GROUP LTD.

Common Shares, Preference Shares, Unsecured Debt Securities, Depositary Shares, Warrants to Purchase Common Shares, Preference Shares or Debt Securities, Share Purchase Contracts and Share Purchase Units

ARCH CAPITAL GROUP (U.S.) INC.

Preferred Stock Fully and Unconditionally Guaranteed by Arch Capital Group Ltd. and Unsecured Debt Securities Fully and Unconditionally Guaranteed by Arch Capital Group Ltd.
The following are types of securities that may be offered and sold from time to time under this prospectus:
Arch Capital Group Ltd. common shares
Arch Capital Group Ltd. preference shares
Arch Capital Group Ltd. unsecured debt securities
Arch Capital Group Ltd. depositary shares representing preference shares or common shares
Arch Capital Group Ltd. warrants to purchase common shares, preference shares or debt securities
Arch Capital Group Ltd. share purchase contracts and share purchase units
Arch Capital Group (U.S.) Inc. preferred stock
Arch Capital Group (U.S.) Inc. unsecured debt securities
In addition, selling shareholders to be named in a prospectus supplement may offer, from time to time, Arch Capital Group Ltd. common shares.
This prospectus may not be used to consummate sales of securities unless accompanied by a prospectus supplement. You should read this prospectus and the prospectus supplements carefully before you invest in the securities. A prospectus supplement will describe the securities Arch Capital Group Ltd., Arch Capital Group (U.S.) Inc. and/or the applicable selling shareholder are offering and selling, as well as the specific terms of the securities. Those terms may include, among others, as applicable:

Aggregate principal amount

Issue price

78

Denominati	on
Currency or	composite currency
Maturity	
Interest rate	
Dividend ra	te
Sinking fun	d terms
Ranking	
Redemption	n terms
Conversion	terms
Listing on a	securities exchange
Amount pa	vable at maturity
Liquidation	preference
The prospectus supplemen	t may also supplement or update information contained in this prospectus.
	d Exchange Commission nor any state securities commission has approved or disapproved of these s prospectus is truthful or complete. Any representation to the contrary is a criminal offense.
	common shares are traded on the Nasdaq Global Select Market under the symbol "ACGL." The closing Ltd. common shares was \$36.13 per share on March 22, 2012.
INVESTING IN OUR SE	CCURITIES INVOLVES CERTAIN RISKS. SEE "RISK FACTORS" BEGINNING ON PAGE 2 AND

ANY SIMILARLY ENTITLED SECTION IN ANY PROSPECTUS SUPPLEMENT.

March 23, 2012

TABLE OF CONTENTS

ARCH CAPITAL GROUP LTD. ARCH CAPITAL GROUP (U.S.) INC.	Page <u>1</u>
ABOUT THIS PROSPECTUS	1
	<u>1</u>
RISK FACTORS	<u>2</u>
RATIO OF EARNINGS TO FIXED CHARGES AND PREFERENCE SHARE DIVIDENDS	<u>2</u>
USE OF PROCEEDS GENERAL DESCRIPTION OF THE OFFERED SECURITIES	2
GENERAL DESCRIPTION OF THE OFFERED SECURITIES	<u>2</u>
DESCRIPTION OF ARCH CAPITAL SHARE CAPITAL	<u>3</u>
DESCRIPTION OF ARCH CAPITAL COMMON SHARES	<u>3</u>
DESCRIPTION OF ARCH CAPITAL PREFERENCE SHARES	<u>5</u>
DESCRIPTION OF ARCH CAPITAL DEBT SECURITIES	<u>12</u>
DESCRIPTION OF ARCH CAPITAL DEPOSITARY SHARES	<u>26</u>
DESCRIPTION OF ARCH CAPITAL WARRANTS TO PURCHASE COMMON SHARES OR PREFERENCE SHARES	<u>29</u>
DESCRIPTION OF ARCH CAPITAL WARRANTS TO PURCHASE DEBT SECURITIES	<u>31</u>
DESCRIPTION OF ARCH CAPITAL SHARE PURCHASE CONTRACTS AND SHARE PURCHASE UNITS	<u>32</u>
DESCRIPTION OF ARCH CAPITAL GROUP (U.S.) INC. PREFERRED STOCK	<u>33</u>
DESCRIPTION OF ARCH CAPITAL GROUP (U.S.) INC. UNSECURED DEBT SECURITIES	<u>35</u>
SELLING SHAREHOLDERS	<u>50</u>
<u>PLAN OF DISTRIBUTION</u>	<u>50</u>
WHERE YOU CAN FIND MORE INFORMATION	<u>51</u>
INCORPORATION OF DOCUMENTS BY REFERENCE	<u>52</u>
CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS	<u>53</u>
<u>LEGAL MATTERS</u>	
EXPERTS	<u>55</u>
ENFORCEMENT OF CIVIL LIABILITIES UNDER UNITED STATES FEDERAL SECURITIES LAWS	

We have obtained consent from the Bermuda Monetary Authority for the issue and transfer of shares to and between persons regarded as non-resident in Bermuda for exchange control purposes. Issues and transfers of shares to any person regarded as resident in Bermuda for exchange control purposes may require specific prior approval from the Bermuda Monetary Authority. The Bermuda Monetary Authority accepts no responsibility for the financial soundness of any proposal or for the correctness of any of the statements made or opinions expressed in this prospectus.

i

Table of Contents

ARCH CAPITAL GROUP LTD.

Arch Capital Group Ltd. ("ACGL" or "Arch Capital" and, together with its subsidiaries, the "Company," "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.

Arch Capital's principal executive office is located at Wessex House, 45 Reid Street, Hamilton HM 12 Bermuda (telephone number: (441) 278-9250). Additional information about Arch Capital may be found over the Internet at our website at http://www.archcapgroup.bm. The information on our website is not a part of this prospectus and is not incorporated by reference herein.

You can obtain additional information about us in the reports and other documents incorporated by reference in this prospectus. See "Where You Can Find More Information" and "Incorporation of Documents by Reference."

ARCH CAPITAL GROUP (U.S.) INC.

Arch Capital Group (U.S.) Inc. ("Arch US") is a Delaware corporation. Arch US is a wholly-owned subsidiary of Arch Capital. Arch US is a holding company for the U.S.-based insurance and reinsurance operations of Arch Capital. Its principal executive office is located at Harborside Financial Center, 300 Plaza Three, 3rd Floor, Jersey City, NJ 07311 (telephone number: (201) 743-4000).

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that Arch Capital Group Ltd. and Arch Capital Group (U.S.) Inc. have filed with the Securities and Exchange Commission (the "SEC") utilizing a "shelf" registration process. Under this shelf process, Arch Capital Group Ltd. and Arch Capital Group (U.S.) Inc. may sell the securities described in this prospectus, and selling shareholders may sell Arch Capital Group Ltd., Arch Capital Group (U.S.) Inc. and/or selling shareholders, may offer. This prospectus does not contain all of the information set forth in the registration statement as permitted by the rules and regulations of the SEC. For additional information regarding Arch Capital Group Ltd. or Arch Capital Group (U.S.) Inc. and the offered securities, please refer to the registration statement. Each time Arch Capital Group Ltd., Arch Capital Group (U.S.) Inc. or one or more selling shareholders sell securities, we will file a prospectus supplement with the SEC that will contain specific information about the terms of that offering. The prospectus supplement may also add, update and change information contained in this prospectus. To the extent that any statement we make in a prospectus supplement is inconsistent with the statements made in this prospectus, the statement made in this prospectus supplement and any applicable pricing supplement together with additional information described under the headings "Where You Can Find More Information" and "Incorporation of Documents by Reference" before you invest in our securities.

In this prospectus, unless the context requires otherwise: (a) "ACGL" and "Arch Capital" refer to Arch Capital Group Ltd., (b) "we," "us," "our" and "the Company" refer to ACGL and its subsidiaries (and do not include any selling shareholders), and (c) "Arch Re U.S." refers only to our wholly owned U.S. reinsurance subsidiary, Arch Reinsurance Company.

Table of Contents

RISK FACTORS

Before making an investment decision, you should carefully consider the risks described under "Cautionary Note Regarding Forward-Looking Statements," "Risk Factors" in the applicable prospectus supplement and in our then most recent Annual Report on Form 10-K, and in our updates to those risk factors in our Quarterly Reports on Form 10-Q, together with all of the other information appearing in this prospectus or incorporated by reference into this prospectus and any applicable prospectus supplement, in light of your particular investment objectives and financial circumstances. In addition to those risk factors, there may be additional risks and uncertainties of which management is not aware or focused on or that management deems immaterial. Our business, financial condition or results of operations could be materially adversely affected by any of these risks. The trading price of our securities could decline due to any of these risks, and you may lose all or part of your investment.

RATIO OF EARNINGS TO FIXED CHARGES AND PREFERENCE SHARE DIVIDENDS

The ratio of earnings to fixed charges for each of the periods set forth below is as follows:

	Year Ended December 31,				
	2011	2010	2009	2008	2007
Ratio of earnings to fixed charges(1)	14.4x	23.7x	24.8x	16.9x	33.0x
Ratio of earnings to fixed charges and preference share dividends(2)	8.5x	13.6x	13.3x	9.0x	16.9x

- For purposes of determining the ratio of earnings to fixed charges, (i) "earnings" consists of (a) income before income taxes, extraordinary item and cumulative effect of accounting change, minus (b) equity in net income (loss) of investees, plus (c) fixed charges and (ii) "fixed charges" consists of (a) interest and amortization on indebtedness, plus (b) estimate of interest component within rental expense net of sublease income.
- For purposes of determining the ratio of earnings to fixed charges and preference share dividends, (i) "earnings" consists of (a) income before income taxes, extraordinary item and cumulative effect of accounting change, minus (b) equity in net income (loss) of investees, plus (c) fixed charges and (ii) "fixed charges and preference share dividends" consists of (a) interest and amortization on indebtedness, plus (b) dividends declared on our Series A Non-Cumulative Preferred Shares and our Series B Non-Cumulative Preferred Shares, plus (c) an estimate of interest component within rental expense net of sublease income.

USE OF PROCEEDS

Except as may otherwise be described in the prospectus supplement relating to an offering of securities, the net proceeds from the sale of the securities included in this prospectus will be used for general corporate purposes. Any specific allocation of the net proceeds of an offering of securities to a specific purpose will be determined at the time of such offering and will be described in the related prospectus supplement.

We will not receive any of the proceeds from the sale of Arch Capital Group Ltd. common shares by selling shareholders.

GENERAL DESCRIPTION OF THE OFFERED SECURITIES

Arch Capital may offer from time to time under this prospectus, separately or together:

common shares.

preference shares,

unsecured senior or subordinated debt securities,

2

Table of Contents

depositary shares, each consisting of one or more or a specified fraction of a common share(s) or a preference share(s),

warrants to purchase common shares, preference shares or debt securities,

share purchase contracts to purchase common shares, and

share purchase units, each consisting of (a) an Arch Capital Group Ltd. common share purchase contract, under which the holder or Arch Capital Group Ltd., upon settlement, will purchase a fixed or varying number of Arch Capital Group Ltd. common shares, and (b) a beneficial interest in Arch Capital Group Ltd. debt securities (which may be senior or subordinated), Arch Capital Group Ltd. preference shares, Arch Capital Group (U.S.) Inc. preferred stock, Arch Capital Group (U.S.) Inc. debt securities (which may be senior or subordinated) or debt or equity obligations of third parties, including U.S. Treasury securities, in each case purchased with the proceeds from the sale of the Arch Capital Group Ltd. share purchase units.

Arch Capital Group (U.S.) Inc. may offer from time to time under this prospectus preferred stock, which will be fully and unconditionally guaranteed by Arch Capital, and unsecured senior or subordinated debt securities, which will be fully and unconditionally guaranteed by Arch Capital.

Selling shareholders may offer from time to time under this prospectus Arch Capital Group Ltd. common shares.

Material U.S. federal income tax considerations pertaining to an investment in the securities offered will be described in the applicable prospectus supplement.

References to "Arch Capital," "we," "our" or "us" in "Description of Arch Capital Share Capital," "Description of Arch Capital Common Shares," "Description of Arch Capital Preference Shares," "Description of Arch Capital Debt Securities," "Description of Arch Capital Depositary Shares," "Description of Arch Capital Warrants to Purchase Common Shares or Preference Shares," "Description of Arch Capital Warrants to Purchase Debt Securities," "Description of Arch Capital Share Purchase Contracts and the Share Purchase Units," "Description of Arch Capital Group (U.S.) Inc. Preferred Stock," "Description of Arch Capital Group (U.S.) Inc. Unsecured Debt Securities," and "Selling Shareholders" refer solely to Arch Capital Group Ltd. and not its subsidiaries.

DESCRIPTION OF ARCH CAPITAL SHARE CAPITAL

The authorized share capital of Arch Capital consists of 600,000,000 common shares, par value U.S. \$0.0033 per share, and 50,000,000 preference shares, par value U.S. \$0.01 per share. As of March 12, 2012, there were 135,420,600 common shares outstanding, 8,000,000 8.00% Non-Cumulative Preferred Shares, Series A, par value \$0.01 per share ("Series A Non-Cumulative Preferred Shares") outstanding, and 5,000,000 7.875% Non-Cumulative Preferred Shares, Series B, par value \$0.01 per share ("Series B Non-Cumulative Preferred Shares") outstanding. The Series A Non-Cumulative Preferred Shares and the Series B Non-Cumulative Preferred Shares are sometimes collectively referred to herein as the "Preferred Shares." All issued and outstanding shares are fully paid and non-assessable.

DESCRIPTION OF ARCH CAPITAL COMMON SHARES

General

The following description of our common shares is a summary. This summary is not complete and is subject to the complete text of applicable laws and our memorandum of association and bye-laws.

Holders of the common shares have no preemptive, redemption, conversion or sinking fund rights. Subject to the voting restrictions described below, holders of common shares are entitled to one vote

Table of Contents

per share on all matters submitted to a vote of holders of common shares and do not have any cumulative voting rights. In the event of a liquidation, dissolution, or winding up of Arch Capital, the holders of common shares are entitled to share equally and ratably in the assets of Arch Capital, if any, remaining after the payment of all debts and liabilities of Arch Capital and the liquidation preference of any outstanding preference shares. All outstanding common shares are fully paid and non-assessable. The board of directors of Arch Capital, which we refer to as "the board," is permitted to authorize the issuance of additional common shares. Issuances of common shares are subject to the applicable rules of the Nasdaq Global Select Market or other organizations on whose systems our common shares may then be quoted or listed.

Transfer Agent

American Stock Transfer & Trust Company is the transfer agent and registrar of our common shares.

Dividends

Holders of our common shares are entitled to participate equally in dividends when the board declares dividends on common shares out of funds legally available for dividends. The rights of holders of our common shares to receive dividends are subject to the preferences of holders of our preference shares, including our Preferred Shares, which require that no dividends may be paid on or with respect to our common shares prior to the declaration and payment of a dividend with respect to the Preferred Shares.

Liquidation Rights

In the event of a liquidation, dissolution, or winding up of Arch Capital, the holders of common shares have a right to a ratable portion of assets remaining after the payment of all debts and liabilities of Arch Capital, if any, and the liquidation preference of any outstanding preference shares, including, with respect to our outstanding Series A Non-Cumulative Preferred Shares and Series B Non-Cumulative Preferred Shares, a liquidation preference of \$25.00 for each such series, plus any declared and unpaid dividends thereon, before any distribution is made on any common shares.

Voting Limitation

Under our bye-laws, if the votes conferred directly or indirectly or by attribution, by our shares directly or indirectly or constructively owned (within the meaning of section 958 of the Internal Revenue Code of 1986, as amended (the "Code")) by any U.S. person (as defined in section 7701(a)(30) of the Code) would otherwise represent more than 9.9% of the voting power of all shares entitled to vote generally at an election of directors, the votes conferred by such shares or such U.S. person will be reduced by whatever amount is necessary so that after any such reduction the votes conferred by the shares of such person will constitute 9.9% of the total voting power of all shares entitled to vote generally at an election of directors.

There may be circumstances in which the votes conferred on a U.S. person are reduced to less than 9.9% as a result of the operation of bye-law 45 because of shares that may be attributed to that person under the Code.

Notwithstanding the provisions of our bye-laws described above, after having applied such provisions as best as they consider reasonably practicable, the board may make such final adjustments to the aggregate number of votes conferred directly or indirectly or by attribution, by the shares directly or indirectly or constructively owned by any U.S. person that they consider fair and reasonable in all the circumstances to ensure that such votes represent 9.9% of the aggregate voting power of the votes conferred by all our shares entitled to vote generally at an election of directors.

Table of Contents

In order to implement bye-law 45, we will assume that all shareholders are U.S. persons unless we receive assurances satisfactory to us that they are not U.S. persons.

Non-U.S. Currency

If the purchase price of any common shares is payable in a currency other than U.S. dollars, the specific terms with respect to such common shares and such foreign currency will be specified in the applicable prospectus supplement.

DESCRIPTION OF ARCH CAPITAL PREFERENCE SHARES

General

The following summary of terms of our preference shares is not complete. You should refer to the provisions of our memorandum of association and bye-laws and the terms of each class or series of the preference shares which will be filed with the SEC at or prior to the time of issuance of such class or series of preference shares and described in the applicable prospectus supplement. The applicable prospectus supplement may also state that any of the terms set forth herein are inapplicable to such series of preference shares.

Our bye-laws allow the board to authorize the issuance of preference shares in one or more series, and may fix the rights and preferences of those shares, including as to dividends, voting (which will be subject to the limitations described below under "Description of Arch Capital Common Shares Voting Limitation"), redemption, conversion rights and otherwise.

Issuances of preference shares are subject to the applicable rules of the New York Stock Exchange ("NYSE") or other organizations on whose systems our preference shares may then be quoted or listed. Depending upon the terms of preference shares established by the board, any or all series of preference shares could have preferences over the common shares with respect to dividends and other distributions and upon liquidation of Arch Capital. Issuance of any such shares with voting powers, or issuance of additional shares of common shares, would dilute the voting power of the outstanding common shares.

Terms

The terms of each series of preference shares will be described in any prospectus supplement related to such series of preference shares.

The board in approving the issuance of a series of preference shares has authority to determine, and the applicable prospectus supplement may set forth with respect to such series, the following terms, among others:

the number of shares constituting that series and the distinctive designation of that series;

the dividend rate on the shares of that series, if any, whether dividends will be cumulative and, if so, from which date or dates, and the relative rights of priority, if any, of payment of dividends on shares of that series;

the voting rights for shares of the series, if any, in addition to the voting rights provided by law, and the terms of such voting rights;

the conversion or exchange privileges for shares of the series, if any (including, without limitation, conversion into common shares), and the terms and conditions of such conversion or exchange, including provisions for adjustment of the conversion or exchange rate in such events as the board will determine;

Table of Contents

whether or not the shares of that series will be redeemable and, if so, the terms and conditions of such redemption, including the manner of selecting shares for redemption if less than all shares are to be redeemed, the date or dates upon or after which they will be redeemable, and the amount per share payable in case of redemption, which amount may vary under different conditions and at different redemption dates;

any sinking fund for the redemption or purchase of shares of that series and the terms and amount of such sinking fund;

the right of the shares of that series to the benefit of conditions and restrictions upon the creation of indebtedness of Arch Capital or any of our subsidiaries, upon the issue of any additional shares (including additional shares of such series or any other series) and upon the payment of dividends or the making of other distributions on, and the purchase, redemption or other acquisition by us or any of our subsidiaries of, any of our outstanding shares;

the rights of the shares of that series in the event of our voluntary or involuntary liquidation, dissolution or winding up, and the relative rights of priority, if any, of payment of shares of that series; and

any other relative participating, optional or other special rights, qualifications, limitations or restrictions of that series.

Preferred Shares

Set forth below is a summary of the material terms of the Certificate of Designations for our Series A Non-Cumulative Preferred Shares and the Certificate of Designations for our Series B Non-Cumulative Preferred Shares. The following summary of the terms and provisions of the Preferred Shares does not purport to be complete and is qualified in its entirety by reference to the pertinent sections of the bye-laws of Arch Capital and the Certificate of Designations for our Series A Non-Cumulative Preferred Shares and the Certificate of Designations for our Series B Non-Cumulative Preferred Shares.

Ranking

The Preferred Shares rank senior to our junior shares (as defined below) and equally with each other series of our preferred shares that we may issue with respect to the payment of dividends and distributions of assets upon liquidation, dissolution or winding-up. The Series A Non-Cumulative Preferred Shares and the Series B Non-Cumulative Preferred Shares are on parity with each other. Other than the Series A Non-Cumulative Preferred Shares, as of the date of this prospectus, we have no other outstanding series or class of shares that are on parity with the Preferred Shares with respect to payment of dividends and the distribution of assets upon a liquidation, dissolution or winding-up of Arch Capital. Unless our shareholders otherwise provide, the board may from time to time create and issue preference shares of other series and fix their relative rights, preferences and limitations.

Dividends

Dividends on the Series A Non-Cumulative Preferred Shares are not mandatory. Holders of Series A Non-Cumulative Preferred Shares are entitled to receive only when, as and if declared by the board or a duly authorized committee of the board, out of lawfully available funds for the payment of dividends under Bermuda law, non-cumulative cash dividends from the original issue date, quarterly on the 15th day of February, May, August and November of each year, commencing on May 15, 2006. These dividends will accrue with respect to a particular dividend period, on the liquidation preference amount of \$25 per share at an annual rate of 8.00%. In the event that we issue additional Series A

Table of Contents

Non-Cumulative Preferred Shares after the original issue date, dividends on such additional shares may accrue from the original issue date or any other date we specify at the time such additional shares are issued.

Dividends on the Series B Non-Cumulative Preferred Shares are not mandatory. Holders of Series B Non-Cumulative Preferred Shares are entitled to receive only when, as and if declared by the board or a duly authorized committee of the board, out of lawfully available funds for the payment of dividends under Bermuda law, non-cumulative cash dividends from the original issue date, quarterly on the 15th day of February, May, August and November of each year, commencing on August 15, 2006. These dividends will accrue with respect to a particular dividend period, on the liquidation preference amount of \$25 per share at an annual rate of 7.875%. In the event that we issue additional Series B Non-Cumulative Preferred Shares after the original issue date, dividends on such additional shares may accrue from the original issue date or any other date we specify at the time such additional shares are issued.

Dividends on the Preferred Shares are not cumulative. Accordingly, if the board, or a duly authorized committee of the board, does not declare a dividend on any series of Preferred Shares payable in respect of any dividend period before the related dividend payment date, such dividend will not accrue and will not be payable and we will have no obligation to pay a dividend for that dividend period on the dividend payment date or at any future time, whether or not dividends are declared for any future dividend period on such series of Preferred Shares or any other preferred shares we may issue in the future.

So long as any series of Preferred Shares remain outstanding for any dividend period, unless the full dividends for the latest completed dividend period on all outstanding shares of such series and parity shares (as defined below) have been declared and paid (or declared and a sum sufficient for the payment thereof has been set aside):

no dividend shall be paid or declared on our common shares, or any other junior shares (as defined below) (other than a dividend payable solely in junior shares); and

no common shares or other junior shares shall be purchased, redeemed or otherwise acquired for consideration by us, 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 Arch Capital in effect on the date of issuance of such series of Preferred Shares).

As used herein, "junior shares" means any class or series of our capital shares that ranks junior to such series of Preferred Shares either as to the payment of dividends or as to the distribution of assets upon any liquidation, dissolution or winding-up of Arch Capital. At the date of this prospectus, junior shares consist of our common shares.

When dividends are not paid (or duly provided for) in full on any dividend payment date (or, in the case of parity shares having dividend payment dates different from the dividend payment dates pertaining to such series of Preferred Shares, on a dividend payment date falling within the related dividend period for such series of Preferred Shares) upon any series of Preferred Shares and any parity shares, all dividends declared by the board or a duly authorized committee of the board upon such series of Preferred Shares and all such parity shares and payable on such dividend payment date (or, in the case of parity shares having dividend payment dates different from the dividend payment dates pertaining to such series of Preferred Shares, on a dividend payment date falling within the related dividend period for such series of Preferred Shares) shall be declared by the board or such committee *pro rata* so that the respective amounts of such dividends shall bear the same ratio to each other as all declared but unpaid dividends per Preferred Share of such series and all parity shares payable on such dividend payment date (or, in the case of parity shares having dividend payment dates different from the dividend payment dates pertaining to such series of Preferred Shares, on a dividend payment date falling within the related dividend period for such series of Preferred Shares) bear to each other.

Table of Contents

As used herein, "parity shares" means, with respect to any series of Preferred Shares, any class or series of our capital shares that ranks equally with such series of Preferred Shares with respect to the payment of dividends and in the distribution of assets on any liquidation, dissolution or winding-up of Arch Capital. Other than the Series A Non-Cumulative Preferred Shares and the Series B Non-Cumulative Preferred Shares (which are on parity with each other), as of the date of this prospectus, we have no outstanding class or series of shares that are parity shares.

Payment of Additional Amounts

We will make all payments on the Preferred Shares free and clear of and without withholding or deduction at source for, or on account of, any present or future taxes, fees, duties, assessments or governmental charges of whatever nature imposed or levied by or on behalf of Bermuda or any other jurisdiction in which we are organized (a "taxing jurisdiction") or any political subdivision or taxing authority thereof or therein, unless such taxes, fees, duties, assessments or governmental charges are required to be withheld or deducted by (x) the laws (or any regulations or rulings promulgated thereunder) of a taxing jurisdiction or any political subdivision or taxing authority thereof or therein or (y) an official position regarding the application, administration, interpretation or enforcement of any such laws, regulations or rulings (including, without limitation, a holding by a court of competent jurisdiction or by a taxing authority in a taxing jurisdiction or any political subdivision thereof). If a withholding or deduction at source is required, we will, subject to certain limitations and exceptions described below, pay to the holders of the Preferred Shares such additional amounts as dividends as may be necessary so that every net payment made to such holders, after the withholding or deduction, will not be less than the amount provided for in the relevant Certificate of Designations to be then due and payable.

We will not be required to pay any additional amounts for or on account of:

- (1) any tax, fee, duty, assessment or governmental charge of whatever nature that would not have been imposed but for the fact that such holder was a resident, citizen, domiciliary or national of, or engaged in business or maintained a permanent establishment or was physically present in, the relevant taxing jurisdiction or any political subdivision thereof or otherwise had some connection with the relevant taxing jurisdiction other than by reason of the mere ownership of, or receipt of payment under, the Preferred Shares presented for payment more than 30 days after the Relevant Date. The "Relevant Date" means, in respect of any payment, the date on which such payment first becomes due and payable, but if the full amount of the moneys payable has not been received by the dividend disbursing agent on or prior to such due date, it means the first date on which, the full amount of such moneys having been so received and being available for payment to holders, notice to that effect shall have been duly given to the holders of the Preferred Shares;
- (2) any estate, inheritance, gift, sale, transfer, personal property or similar tax, assessment or other governmental charge or any tax, assessment or other governmental charge that is payable otherwise than by withholding or deduction from payment of the liquidation preference;
- (3) any tax, fee, assessment or other governmental charge that is payable otherwise than by withholding or deduction from payment of the liquidation preference of or any dividends on the Preferred Shares;
- (4) any tax, fee, duty, assessment or other governmental charge that is imposed or withheld by reason of the failure by the holder of the Preferred Shares to comply with any reasonable request by us addressed to the holder within 90 days of such request (a) to provide information concerning the nationality, citizenship, residence or identity of the holder or (b) to make any declaration or other similar claim or satisfy any information or reporting requirement, which is required or imposed by statute, treaty, regulation or administrative practice of the relevant taxing

Table of Contents

jurisdiction or any political subdivision thereof as a precondition to exemption from all or part of such tax, fee, duty, assessment or other governmental charge;

- (5) any withholding or deduction required to be made pursuant to any EU Directive on the taxation of savings implementing the conclusions of the ECOFIN Council meetings of 26-27 November 2000, 3 June 2003 or any law implementing or complying with, or introduced in order to conform to, such EU Directive; or
 - (6) any combination of items (1), (2), (3), (4) and (5).

In addition, we will not pay additional amounts with respect to any payment on any Preferred Shares to any holder who is a fiduciary, partnership, limited liability company or other pass-thru entity other than the sole beneficial owner of such Preferred Shares if such payment would be required by the laws of the relevant taxing jurisdiction (or any political subdivision or relevant taxing authority thereof or therein) to be included in the income for tax purposes of a beneficiary or partner or settlor with respect to such fiduciary or a member of such partnership, limited liability company or other pass-thru entity or a beneficial owner to the extent such beneficiary, partner or settlor would not have been entitled to such additional amounts had it been the holder of such Preferred Shares.

If we become obligated to pay any additional amounts as a result of a change in tax law, we will also have the option to redeem the Preferred Shares. See " Tax Redemption."

Liquidation Rights

Upon any voluntary or involuntary liquidation, dissolution or winding-up of Arch Capital, holders of Preferred Shares and any parity shares are entitled to receive out of our assets available for distribution to shareholders, after satisfaction of liabilities to creditors, if any, but before any distribution of assets is made to holders of our common shares or any of our other shares ranking junior as to such a distribution to the Preferred Shares, a liquidating distribution in the amount of \$25 per Preferred Share plus any declared and unpaid dividends. If in any such distribution, our assets or proceeds thereof are not sufficient to pay the liquidating distribution, distributions will be made *pro rata* as to the Preferred Shares and any parity shares but only to the extent we have assets available after satisfaction of all liabilities to creditors. Holders of Preferred Shares will not be entitled to any other amounts from us after they have received their full liquidation preference.

In any such distribution, if our assets are not sufficient to pay the liquidation preferences in full to all holders of Preferred Shares and all holders of any parity shares, the amounts paid to the holders of Preferred Shares and to the holders of any parity shares will be paid *pro rata* in accordance with the respective aggregate liquidation preferences of those holders. In any such distribution, the "liquidation preference" of any holder of Preferred Shares or parity shares means the amount payable to such holder in such distribution, including any declared but unpaid dividends (and any unpaid, accrued cumulative dividends in the case of any holder of shares on which dividends accrue on a cumulative basis). If the liquidation preference has been paid in full to all holders of Preferred Shares and any holders of parity shares, the holders of our other shares shall be entitled to receive all of our remaining assets according to their respective rights and preferences.

For purposes of this section, a consolidation, amalgamation, merger, arrangement, reincorporation, de-registration or reconstruction involving Arch Capital or the sale or transfer of all or substantially all of the shares or the property or business of Arch Capital will not be deemed to constitute a liquidation, dissolution or winding-up.

Redemption

The Series A Non-Cumulative Preferred Shares are not subject to any mandatory redemption, sinking fund, retirement fund, purchase fund or other similar provisions. The Series A Non-Cumulative

Table of Contents

Preferred Shares are redeemable at our option, in whole or in part, upon not less than 30 days' or more than 60 days' notice, at a redemption price equal to \$25 per preferred share, plus declared and unpaid dividends, without accumulation of any undeclared dividends. Holders of the Series A Non-Cumulative Preferred Shares will have no right to require the redemption of the Series A Non-Cumulative Preferred Shares.

The Series B Non-Cumulative Preferred Shares are not subject to any mandatory redemption, sinking fund, retirement fund, purchase fund or other similar provisions. The Series B Non-Cumulative Preferred Shares are redeemable at our option, in whole or in part, upon not less than 30 days' or more than 60 days' notice, at a redemption price equal to \$25 per preferred share, plus declared and unpaid dividends, without accumulation of any undeclared dividends. Holders of the Series B Non-Cumulative Preferred Shares will have no right to require the redemption of the Series B Non-Cumulative Preferred Shares.

Tax Redemption

We will have the option to redeem for cash any series of our Preferred Shares at any time in whole or from time to time in part, upon not less than 30 days' or more than 60 days' prior written notice in accordance with the procedures set forth in the relevant Certificate of Designations at a redemption price of \$25 per share plus declared and unpaid dividends, if any, to the date of redemption, without interest on such unpaid dividends, if as a result of a "change in tax law" there is a substantial probability that we or any successor corporation would be required to pay any additional amounts with respect to such series of Preferred Shares.

A "change in tax law" that would trigger the provisions of the preceding paragraph would be (a) a change in or amendment to laws, regulations or rulings of any jurisdiction, political subdivision or taxing authority described in the next sentence, (b) a change in the official application or interpretation of those laws, regulations or rulings, (c) any execution of or amendment to any treaty affecting taxation to which any jurisdiction, political subdivision or taxing authority described in the next sentence is party after the date of the prospectus relating to the relevant series of Preferred Shares, or (d) a decision rendered by a court of competent jurisdiction in Bermuda or any taxing jurisdiction or any political subdivision, whether or not such decision was rendered with respect to us. The jurisdictions, political subdivisions and taxing authorities referred to in the previous sentence are (a) Bermuda or any political subdivision or governmental authority of or in Bermuda with the power to tax, (b) any jurisdiction from or through which we or our dividend disbursing agent are making payments on the Preferred Shares or any political subdivision or governmental authority of or in that jurisdiction with the power to tax or (c) any other jurisdiction in which Arch Capital or a successor corporation is organized or generally subject to taxation or any political subdivision or governmental authority of or in that jurisdiction with the power to tax.

In addition, we will have the option to redeem for cash any or all Preferred Shares at any time in whole or from time to time in part, upon not less than 30 days' or more than 60 days' prior written notice in accordance with the procedures set forth in the relevant Certificate of Designations, at a redemption price of \$25 per share plus declared and unpaid dividends, if any, to the date of redemption, without interest on such unpaid dividends, if the entity formed by a consolidation, merger or amalgamation involving us or the entity to which we convey, transfer or lease substantially all our properties and assets is required to pay additional amounts in respect of any tax, assessment or governmental charge imposed on any holder of Preferred Shares as a result of a change in tax law that occurred after the date of the consolidation, merger, amalgamation, conveyance, transfer or lease.

Voting Rights

Except as provided below, the holders of the Preferred Shares will have no voting rights.

10

Table of Contents

Whenever dividends on any series of Preferred Shares shall have not been declared and paid for the equivalent of six or more dividend periods, whether or not for consecutive dividend periods (a "nonpayment event"), the holders of the Preferred Shares of such series, voting together as a single class with holders of any and all other series of voting preferred shares (as defined below) then outstanding, will be entitled to vote for the election of a total of two additional members of the board (the "preferred shares directors"), *provided* that the election of any such directors shall not cause us to violate the corporate governance requirement of any exchange on which our securities may be listed or quoted that listed or quoted companies must have a majority of independent directors. In that event, the new directors shall be elected at a special meeting called at the request of the holders of record of at least 20% of the aggregate voting power of the Preferred Shares of such series or of any other series of voting preferred shares (unless such request is received less than 90 days before the date fixed for the next annual or special meeting of the shareholders of Arch Capital, in which event such election shall be held at such next annual or special meeting of shareholders), and at each subsequent annual meeting.

As used in this prospectus, "voting preferred shares" means any other class or series of our preferred shares ranking equally with the Preferred Shares as to dividends and the distribution of assets upon liquidation, dissolution or winding-up of Arch Capital and upon which like voting rights have been conferred and are exercisable. Whether a plurality, majority or other portion of the Preferred Shares and any other voting preferred shares has been voted in favor of any matter shall be determined by reference to the aggregate voting power, as determined under our bye-laws, of the Preferred Shares and voting preferred shares voted.

If and when dividends for at least four dividend periods, whether or not consecutive, following a nonpayment event have been paid in full (or declared and a sum sufficient for such payment shall have been set aside), the holders of the Preferred Shares shall be divested of the foregoing voting rights (subject to revesting in the event of each subsequent nonpayment event) and, if such voting rights for all other holders of voting preferred shares have terminated, the term of office of each preferred shares director so elected shall terminate and the number of directors on the board shall automatically decrease by two. In determining whether dividends have been paid for four dividend periods following a nonpayment event, we may take account of any dividend we elect to pay for such a dividend period after the regular dividend payment date for that period has passed.

Any preferred shares director may be removed at any time without cause by the holders of record of a majority of the aggregate voting power, as determined under our bye-laws, of Preferred Shares and any other voting preferred shares then outstanding (voting together as a single class) when they have the voting rights described above. So long as a nonpayment event shall continue, any vacancy in the office of a preferred shares director (other than prior to the initial election after a nonpayment event) may be filled by the written consent of the preferred shares director remaining in office, or if none remains in office, by a vote of the holders of record of a majority of the outstanding Preferred Shares and any other voting preferred shares then outstanding (voting together as a single class) when they have the voting rights described above. Any vote of shareholders to remove, or to fill a vacancy in the office of, a preferred shares director may be taken only at a special general meeting of such shareholders, called as provided above for an initial election of preferred shares director after a nonpayment event (unless such request is received less than 90 days before the date fixed for the next annual or special meeting of the shareholders of Arch Capital, in which event such election shall be held at such next annual or special general meeting of shareholders of by written consent of the other preferred shares director shall hold office until the next annual meeting of the shareholders of Arch Capital if such office shall not have previously terminated as above provided.

Table of Contents

The bye-laws of Arch Capital provide that all or any of the special rights attached to any class of shares (including the Preferred Shares) issued may, whether or not Arch Capital is being wound-up, be varied with the consent in writing of the holders of a majority of the voting power represented by the issued shares of that class or with the sanction of a resolution passed by a majority of the voting power represented by the votes cast at a separate general meeting of the holders of the shares of the class in accordance with the Companies Act. The bye-laws also provide that rights conferred upon the holders of the shares of any class (including the Preferred Shares) issued with preferred or other rights shall not, unless otherwise expressly provided by the terms of issue of the shares of that class, be deemed to be varied by the creation or issue of further shares ranking *pari passu* therewith. The Companies Act provides that in certain circumstances, non-voting shares have the right to vote (for example without limitation, converting a limited liability company to an unlimited liability company, discontinuance of a company from Bermuda, or conversion of preference shares into redeemable preference shares).

Notwithstanding the foregoing, our bye-laws contain a provision limiting the voting rights of any U.S. person, as defined in the Code, who owns (directly, indirectly or constructively under the Code) shares with more than 9.9% of the total voting power of all shares entitled to vote generally at an election of directors to 9.9% of such voting power. See "Description of Arch Capital Common Shares" Voting Limitation."

Conversion

The Preferred Shares are not convertible into or exchangeable for any other securities or property of Arch Capital.

Non-U.S. Currency

If the purchase price of any preference shares is payable in a currency other than U.S. dollars, the specific terms with respect to such preference shares and such foreign currency will be specified in the applicable prospectus supplement.

DESCRIPTION OF ARCH CAPITAL DEBT SECURITIES

General

We may issue debt securities from time to time in one or more series, under one or more indentures, each dated as of a date on or prior to the issuance of the debt securities to which it relates. Senior debt securities and subordinated debt securities may be issued pursuant to separate indentures, a senior indenture and a subordinated indenture, respectively, in each case between us and a trustee qualified under the Trust Indenture Act. The forms of such indentures have been filed as an exhibit to the registration statement of which this prospectus is a part, subject to such amendments or supplements as may be adopted from time to time. The senior indenture and the subordinated indenture, as amended or supplemented from time to time, are sometimes referred to individually as an "indenture" and collectively as the "indentures." Each indenture will be subject to and governed by the Trust Indenture Act. The aggregate principal amount of debt securities which may be issued under each indenture will be unlimited and each indenture will set forth the specific terms of any series of debt securities or provide that such terms will be set forth in, or determined pursuant to, an authorizing resolution, as defined in the applicable prospectus supplement, and/or a supplemental indenture, if any, relating to such series.

The statements made below relating to the debt securities and the indentures are summaries of the anticipated provisions thereof, do not purport to be complete and are subject to, and are qualified in their entirety by reference to, all of the provisions of the applicable indenture and any applicable U.S. federal income tax considerations as well as any applicable modifications of or additions to the general

Table of Contents

terms described below in the applicable prospectus supplement. The applicable prospectus supplement may also state that any of the terms set forth herein are inapplicable to such series of debt securities.

Terms

The debt securities will be our unsecured obligations.

The senior debt securities will rank equal in right of payment with all our other unsecured and unsubordinated indebtedness.

The subordinated debt securities will be subordinated in right of payment to the prior payment in full of all our senior indebtedness, which is defined in the section called "Ranking of Debt Securities" below.

The specific terms of each series of debt securities will be set forth in the applicable prospectus supplement relating thereto, including the following, as applicable:

- (1) the title of such debt securities and whether such debt securities are senior debt securities or subordinated debt securities and, if subordinated debt securities, the specific subordination provisions applicable thereto;
 - (2) the aggregate principal amount of such debt securities and any limit on such aggregate principal amount;
- (3) if the price (expressed as a percentage of the aggregate principal amount thereof) at which such debt securities will be issued is a price other than the principal amount thereof, the portion of the principal amount thereof payable upon declaration of acceleration of the maturity thereof, or if applicable, the portion of the principal amount of such debt securities that is convertible into another security or the method by which any such portion will be determined;
- (4) if convertible into common shares or preference shares, the terms on which such debt securities are convertible, including the initial conversion price, the conversion period, any events requiring an adjustment of the applicable conversion price and any requirements relating to the reservation of such common shares or preference shares for purposes of conversion;
- (5) the date(s), or the method for determining such date or dates, on which the principal of such debt securities will be payable and, if applicable, the terms on which such maturity may be extended;
- (6) the rate(s) (which may be fixed or floating), or the method by which such rate or rates will be determined, at which such debt securities will bear interest, if any, including if applicable, that such debt securities will bear interest at an increased rate (up to a specified maximum) upon the occurrence of an event of default and/or under certain circumstances described in the applicable prospectus supplement (which may include, among other things, a reduction in the trading price of our common shares below certain levels for a minimum period of time);
- (7) the date(s), or the method for determining such date or dates, from which any such interest will accrue, the dates on which any such interest will be payable, the record dates for such interest payment dates, or the method by which such dates will be determined, the persons to whom such interest will be payable, and the basis upon which interest will be calculated if other than that of a 360-day year of twelve 30-day months;
- (8) the place(s) where the principal of and interest, if any, on such debt securities will be payable, where such debt securities may be surrendered for registration of transfer or exchange and where notices or demands to or upon us in respect of such debt securities and the applicable indenture may be served;

Table of Contents

- (9) the period(s), if any, within which, the price or prices or ratios at which and the terms and conditions upon which such debt securities may, pursuant to any optional or mandatory redemption provisions, be redeemed, in whole or in part, at our option;
- (10) our obligation, if any, to redeem, repay or repurchase such debt securities pursuant to any sinking fund or analogous provisions or at the option of a holder thereof, and the period or periods within which, the price or prices at which and the terms and conditions upon which such debt securities will be redeemed, repaid or purchased, in whole or in part, pursuant to such obligation;
- (11) if other than U.S. dollars, the currency or currencies in which the principal of and interest, if any, on such debt securities are denominated and payable, which may be a foreign currency or units of two or more foreign currencies or a composite currency or currencies, and the terms and conditions relating thereto;
- (12) whether interest on such debt securities will be payable, at our option or the option of a holder thereof, in cash or additional debt securities and the terms and conditions upon which the election may be made or deferred;
- (13) whether the amount of payments of principal of or interest, if any, on such debt securities may be determined with reference to an index, formula or other method (which index, formula or method may, but need not be, based on the yield on or trading price of other securities, including United States Treasury securities, or on a currency, currencies, currency unit or units, or composite currency or currencies) and the manner in which such amounts will be determined;
- (14) whether the principal of or interest, if any, on such debt securities is to be payable, at our election or at the election of a holder thereof, in a currency or currencies, currency unit or units or composite currency or currencies other than that in which such debt securities are stated to be payable and the period or periods within which, and the terms and conditions upon which, such election may be made;
- (15) provisions, if any, granting special rights to the holders of such debt securities upon the occurrence of such events as may be specified;
- (16) any deletions from, modifications of or additions to the events of default or our covenants with respect to such debt securities;
- (17) whether such debt securities are to be issuable initially as individual debt securities and/or in temporary global form and/or permanent global form (and, if so, whether beneficial owners of interests in any such security in permanent global form may exchange such interests for debt securities of the same series and of like tenor of any authorized form and denomination and the circumstances under which any such exchanges may occur, if other than in the manner provided in the applicable indenture) and, if such debt securities are to be issuable as a global security, the identity of the depositary therefor;
 - (18) any listing of such debt securities on any securities exchange;
- (19) the applicability, if any, of the defeasance and covenant defeasance provisions of the applicable indenture to such debt securities;
- (20) if exchangeable into another series of debt securities of Arch Capital, the terms on which such debt securities are exchangeable; and
 - (21) any other terms of such debt securities and any additions, deletions or modifications to the applicable indenture.

Table of Contents

The debt securities, if convertible or exchangeable, will not be convertible into or exchangeable for securities of a third party.

If the applicable prospectus supplement so provides, the debt securities may be issued at a discount below their principal amount and provide for less than the entire principal amount thereof to be payable upon declaration of acceleration of the maturity thereof or provable in bankruptcy.

Except as may be set forth in the applicable prospectus supplement, the debt securities will not contain any provisions that would limit our ability to incur indebtedness or that would afford holders of debt securities protection against transactions involving us, including a highly leveraged transaction involving us or a change of control. The applicable prospectus supplement will contain information with respect to any deletions from, modifications of or additions to the events of default or covenants described below, including any addition of a covenant or other provision providing event risk or similar protection.

Denomination, Interest, Registration and Transfer

We will issue the debt securities of each series only in registered form, without coupons, in denominations of \$1,000, or in such other currencies or denominations as may be specified in an authorizing resolution and/or supplemental indenture, if any, relating to such series of debt securities.

The principal of and interest, if any, on any series of debt securities will be payable at the corporate trust office of the trustee, the address of which will be stated in the applicable prospectus supplement. However, at our option, interest payments may be made by check mailed to the address of the person entitled thereto as it appears in the applicable register for such debt securities.

Subject to certain limitations imposed upon debt securities issued in book-entry form, the debt securities of any series:

will be exchangeable for any authorized denomination of other debt securities of the same series and of a like aggregate principal amount and tenor upon surrender of such debt securities at the trustee's corporate trust office or at the office of any registrar designated by us for such purpose; and

may be surrendered for registration of transfer or exchange thereof at the corporate trust office of the trustee or at the office of any registrar designated by us for such purpose.

No service charge will be made for any registration of transfer or exchange, but we may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection with certain transfers and exchanges. We may act as registrar and may change any registrar without notice.

Certain Covenants

The applicable prospectus supplement will describe any material covenants in respect of a series of debt securities that are not described in this prospectus.

Unless otherwise indicated in the applicable prospectus supplement, senior debt securities and the subordinated debt securities will include the provisions described below.

Merger, Amalgamation, Consolidation or Sale of Assets

We may not consolidate or amalgamate with or merge with or into any other person (other than a subsidiary) or convey, transfer, sell or lease our properties and assets substantially as an entirety to any

Table of Contents

person (other than a subsidiary), or permit any person (other than a subsidiary) to consolidate with or merge into us, unless:

either (a) we shall be the surviving person or (b) the surviving person (if other than us) shall (1) be a corporation or limited liability company organized and existing under the laws of the United States of America, any state thereof, the District of Columbia, Bermuda, the Cayman Islands or any country or state which is a member of the Organization of Economic Cooperation and Development and (2) expressly assume, by an indenture supplemental to the applicable indenture, executed and delivered to the applicable trustee, in form reasonably satisfactory to such trustee, all of our obligations under the applicable debt securities and such indenture;

immediately after giving effect to such transaction, no event of default, and no event that, after notice or lapse of time or both, would become an event of default, shall have occurred and be continuing; and

we shall have delivered to the applicable trustee an officers' certificate stating that such consolidation, merger, conveyance, transfer, sale or lease and, if a supplemental indenture is required in connection with such transaction, such supplemental indenture, comply with the applicable base indenture and that all conditions precedent therein provided for relating to such transaction have been satisfied.

The surviving person of such transaction shall succeed to, and be substituted for, and may exercise every right and power of, us under the applicable indenture with the same effect as if such successor had been named as us thereunder; and thereafter, we shall be discharged from all obligations and covenants under the applicable base indenture and the applicable debt securities.

Payment of Principal, Premium and Interest

We will duly and punctually pay the principal of (and premium, if any) and interest on the debt securities in accordance with their terms.

Maintenance of Office or Agency

We will maintain an office or agency where the debt securities may be presented or surrendered for registration of transfer or exchange and where notices and demands to or upon us in respect of the debt securities and the applicable indenture may be served.

Money for Securities; Payments to Be Held in Trust

If we at any time act as our own paying agent with respect to any debt securities, we will, on or before each due date of the principal of (and premium, if any) or interest on such debt securities, segregate and hold in trust for the benefit of the persons entitled thereto a sum sufficient to pay the principal (and premium, if any) or interest so becoming due until such sums are paid to such persons or otherwise disposed of as provided in the applicable indenture and will promptly notify the applicable trustee of our action or failure so to act.

Corporate Existence

Except as otherwise permitted under "Merger, Amalgamation, Consolidation or Sale of Assets" above, we will do or cause to be done all things necessary to preserve and keep in full force and effect our corporate existence and material rights (charter and statutory) and franchises; provided, however, that we will not be required to preserve any such right or franchise if the board or our senior management determines that the preservation thereof is no longer desirable in the conduct of our business and that the loss thereof is not disadvantageous in any material respect to the holders of debt securities.

Table of Contents

Statement by Officers as to Default

We will deliver to the trustee, within 120 days after the end of each fiscal year of Arch Capital, a certificate of our principal executive officer, principal financial officer or principal accounting officer stating whether or not to the best knowledge of the signers thereof we are in default in the performance and observance of any of the terms, provisions and conditions of the applicable indenture, and if we are in default, specifying all such defaults and the nature and status thereof of which they may have knowledge.

Waiver of Certain Covenants

We may omit in any particular instance to comply with any term, provision or condition set forth in the covenants described above under the captions " Corporate Existence" and " Statement by Officers as to Default" in respect of any series of debt securities if before or after the time for such compliance, the holders of at least a majority in principal amount of the outstanding debt securities of such series (taken together as one class) will, by act of such holders, either waive such compliance in such instance or generally waive compliance with such term, provision or condition, and except to the extent so expressly waived, and, until such waiver will become effective, our obligations and the duties of the applicable trustee in respect of any such term, provision or condition will remain in full force and effect.

Ranking of Debt Securities

General

We currently conduct substantially all of our operations through our subsidiaries and our subsidiaries generate substantially all of our operating income and cash flow. As a result, distributions and advances from our subsidiaries will be the principal source of funds necessary to meet our debt service obligations. Contractual provisions or laws, as well as our subsidiaries' financial condition and operating and regulatory requirements, may limit our ability to obtain cash from our subsidiaries that we require to pay our debt service obligations. In addition, because we are a holding company holders of the debt securities will be structurally subordinated to the claims of creditors of our subsidiaries on their assets and earnings.

Senior Debt Securities

The senior debt securities will be our unsecured unsubordinated obligations and will:

rank equal in right of payment with all our other unsecured and unsubordinated indebtedness;

be effectively subordinated in right of payment to all of our secured indebtedness to the extent of the value of the assets securing such indebtedness; and

be structurally subordinated to all of our subsidiaries' indebtedness and other obligations (including insurance obligations).

As of December 31, 2011, the aggregate amount of our outstanding consolidated indebtedness for money borrowed was approximately \$400.0 million, all of which was unsecured and unsubordinated. As of December 31, 2011, the consolidated obligations of our subsidiaries reflected on our balance sheet were approximately \$12.1 billion, all of which would be structurally senior to any senior debt securities issued by us.

Except as otherwise specified in an authorizing resolution and/or supplemental indenture, if any, relating to a series of senior debt securities to be issued, the senior debt securities will not contain any limitation on the amount of indebtedness, secured or otherwise, which may be incurred by us or any of our subsidiaries.

Table of Contents

Subordinated Debt Securities

The subordinated debt securities will be our unsecured subordinated obligations. Unless otherwise provided in the applicable prospectus supplement, the payment of principal of, interest on and all other amounts owing in respect of the subordinated debt securities will be subordinated in right of payment to the prior payment in full in cash of principal of, interest on and all other amounts owing in respect of all of our senior indebtedness (as defined below) and other obligations (including without limitation insurance obligations and our obligations with respect to our insurance policies and guarantees thereof). Upon any distribution of our assets of any kind or character, whether in cash, property or securities, to creditors upon any total or partial liquidation, dissolution, winding-up, reorganization, assignment for the benefit of creditors or marshaling of our assets or in a bankruptcy, insolvency, receivership or other similar proceeding relating to us or our property, whether voluntary or involuntary, all principal of, interest on and all other amounts due or to become due on all senior indebtedness will be paid first in full in cash, or such payment duly provided for to the satisfaction of the holders of senior indebtedness, before the holders of the subordinated debt securities are entitled to receive or retain any payment.

If any default occurs and is continuing in the payment when due or all or any portion of the obligations under or in respect of any senior indebtedness, whether at maturity, on account of mandatory redemption or prepayment, acceleration or otherwise, no direct or indirect payment (whether pursuant to the terms of the subordinated debt securities or upon acceleration, by way of repurchase, redemption, defeasance or otherwise) by or on behalf of us will be made of any principal of, interest on or other amounts owing in respect of the subordinated debt securities.

As of December 31, 2011, the aggregate amount of our consolidated indebtedness for money borrowed was approximately \$400.0 million, all of which was unsubordinated and would rank senior in right of payment to any subordinated debt securities issued by us. All indebtedness and other obligations (including insurance obligations) of our subsidiaries would be structurally senior to any subordinated debt securities issued by us. As of December 31, 2011, the consolidated obligations of our subsidiaries reflected on our balance sheet were approximately \$12.1 billion.

If any event of default other than a nonpayment event of default occurs and is continuing with respect to any senior indebtedness, as such event of default is defined in the instrument creating or evidencing such senior indebtedness, permitting the holders of such senior indebtedness then outstanding to accelerate the maturity thereof, and upon receipt by the trustee under the subordinated indenture of written notice (a "default notice") from a holder or holders of, or the trustee or agent acting on behalf of, such senior indebtedness, then, unless and until all such events of default have been cured or waived or have ceased to exist or such senior indebtedness has been discharged or repaid in full in cash, or the requisite holders of such senior indebtedness have otherwise agreed in writing, during the 179 days after the delivery of such default notice (the "blockage period"), neither we nor any other person on our behalf will make any payment of any kind or character with respect to any principal of, interest on or other distribution on account of or with respect to the subordinated debt securities.

Notwithstanding anything herein to the contrary, in no event will a blockage period extend beyond 179 days from the date the default notice in respect thereof was given and only one such blockage period may be commenced within any period of 360 consecutive days. No event of default which existed or was continuing on the date of the commencement of any blockage period with respect to the senior indebtedness will be, or be made, the basis for commencement of a second blockage period by the holder or holders of, or the trustee or agent acting on behalf of, such senior indebtedness whether or not within a period of 360 consecutive days unless such event of default will have been cured or waived for a period of not less than 90 consecutive days (it being acknowledged that any subsequent action or any breach of any financial covenants for a period commencing after the date of

Table of Contents

commencement of such blockage period that, in either case, would give rise to an event of default pursuant to any provisions under which an event of default previously existed or was continuing will constitute a new event of default for this purpose).

As a result of the foregoing provisions, in the event of our insolvency, holders of the subordinated debt securities may recover ratably less than our general creditors.

"Senior indebtedness," unless otherwise specified in an authorizing resolution and/or supplemental indenture, if any, relating to a series of subordinated debt securities to be issued by us, means, with respect to us:

- (1) the principal (including redemption payments), premium, if any, interest and other payment obligations in respect of (a) our indebtedness for money borrowed and (b) our indebtedness evidenced by securities, debentures, bonds, notes or other similar instruments issued by us, including any such securities issued under any deed, indenture or other instrument to which we are a party;
 - (2) all of our capital lease obligations;
- (3) all of our obligations issued or assumed as the deferred purchase price of property, all of our conditional sale obligations, all of our hedging agreements and agreements of a similar nature thereto and all agreements relating to any such agreements, and all of our obligations under any title retention agreement (but excluding trade accounts payable arising in the ordinary course of business);
- (4) all of our obligations for reimbursement on any letter of credit, banker's acceptance, security purchase facility or similar credit transaction;
- (5) all obligations of the type referred to in clauses (1) through (4) above of other persons for the payment of which we are responsible or liable as obligor, guarantor or otherwise;
- (6) all obligations of the type referred to in clauses (1) through (5) above of other persons secured by any lien on any of our property or asset (whether or not such obligation is assumed by us); and
- (7) any deferrals, amendments, renewals, extensions, modifications and refundings of all obligations of the type referred to in clauses (1) through (6) above, in each case whether or not contingent and whether outstanding at the date of effectiveness of the subordinated indenture or thereafter incurred.

except, in each case, for the subordinated debt securities and any such other indebtedness or deferral, amendment, renewal, extension, modification or refunding that contains express terms, or is issued under a deed, indenture or other instrument, which contains express terms, providing that it is subordinate to, or ranks equal with, the subordinated debt securities.

Such senior indebtedness will continue to be senior indebtedness and be entitled to the benefits of the subordination provisions of the subordinated indenture irrespective of any amendment, modification or waiver of any term of such senior indebtedness and notwithstanding that no express written subordination agreement may have been entered into between the holders of such senior indebtedness and the trustee under the subordinated indenture or any of the holders of the subordinated debt securities.

Discharge and Defeasance

Under the terms of each indenture, we will be discharged from any and all obligations in respect of the debt securities of any series issued under such indenture and such indenture (except in each case

Table of Contents

for certain obligations to register the transfer or exchange of debt securities, replace stolen, lost or mutilated debt securities, maintain paying agencies and hold moneys for payment in trust) if:

- (1) we deliver all outstanding debt securities of such series to the applicable trustee for cancellation and pay all sums payable by us under such debt securities and such indenture with respect to such series; or
- (2) such debt securities either have become due and payable or will become due and payable within one year (or are to be called for redemption within one year) and we deposit with the applicable trustee, in trust:
 - (a) in the case of any debt securities of any series denominated in U.S. dollars, cash or U.S. government obligations sufficient to pay all principal of and interest and premium, if any, on such debt securities; and
 - (b) in the case of any debt securities of any series denominated in any currency other than U.S. dollars, an amount of the applicable currency in which such debt securities are denominated sufficient to pay all principal of and interest and premium, if any, on such debt securities.

In addition, unless the applicable prospectus supplement and supplemental indenture provide otherwise, we may elect either (1) to defease and be discharged from any and all obligations with respect to the debt securities of any series ("defeasance") or (2) to be released from our obligations with respect to the debt securities of any series under certain covenants in the applicable indenture, and any omission to comply with such obligations will not constitute a default or an event of default with respect to such debt securities ("covenant defeasance"), in each case by giving notice to the applicable trustee of our intention to defease all of the debt securities of such series and irrevocably depositing with such trustee or a paying agent:

- (1) in the case of any debt securities of any series denominated in U.S. dollars, cash or U.S. government obligations sufficient to pay all principal of and interest and premium, if any, on such debt securities; and
- (2) in the case of any debt securities of any series denominated in any currency other than U.S. dollars, an amount of the applicable currency in which the debt securities are denominated sufficient to pay all principal of and interest and premium, if any, on such debt securities.

Such a trust may only be established if, among other things:

- (1) the applicable defeasance or covenant defeasance does not result in a breach or violation of, or constitute a default under, the applicable indenture or any agreement or instrument to which we are a party or by which we are bound;
- (2) in the case of defeasance, no event of default or event which with notice or lapse of time or both would become an event of default with respect to the debt securities to be defeased will have occurred and be continuing on the date of establishment of such a trust; and
- (3) we have delivered to the applicable trustee an opinion of counsel or a letter ruling of the Internal Revenue Service ("IRS") (as specified in the applicable supplemental indenture) to the effect that the holders will not recognize income, gain or loss for United States federal income tax purposes as a result of such defeasance or covenant defeasance and will be subject to United States federal income tax on the same amount, in the same manner and at the same times as would have been the case if such defeasance or covenant defeasance had not occurred.

In the event we effect covenant defeasance with respect to any debt securities and such debt securities are declared due and payable because of the occurrence of any event of default, other than an event of default with respect to any covenant as to which there has been covenant defeasance, the

Table of Contents

government obligations on deposit with the applicable trustee will be sufficient to pay amounts due on such debt securities at the time of the stated maturity but may not be sufficient to pay amounts due on such debt securities at the time of the acceleration resulting from such event of default.

Modification and Waiver

We, when authorized by a board resolution, and the trustee may modify, amend and/or supplement each indenture and/or the terms of each series of debt securities with the consent of the holders of not less than a majority in principal amount of the outstanding debt securities of all series affected thereby (voting as a single class); *provided*, *however*, that, without the consent of each holder of the debt securities affected thereby, such amendment, modification or supplement may not (with respect to any debt securities held by a non-consenting holder):

- (1) change the stated maturity of the principal of, or any premium on, or any installment of interest with respect to such debt securities;
- (2) reduce the principal amount of, or the rate (or modify the calculation of such principal amount or rate) of interest on, such debt securities or any premium payable upon the redemption thereof or otherwise change the redemption provisions thereof;
 - (3) change the currency of payment of principal of or interest on such debt securities;
 - (4) impair the right to institute suit for the enforcement of any payment on or with respect to such debt securities;
- (5) reduce the above-stated percentage of holders of the debt securities of any series necessary to modify or amend the indenture governing such series;
- (6) in the case of the subordinated indenture, modify or make any change to the subordination provisions thereof that adversely affects the rights of the holders of subordinated debt securities of any series then outstanding; or
- (7) in the case of any convertible debt securities, adversely affect the right of a holder to convert such debt securities other than as provided in or under the applicable indenture; or
- (8) modify the foregoing requirements or reduce the percentage of outstanding debt securities necessary to waive any covenant or past default.

Holders of not less than a majority in principal amount of the outstanding debt securities of any series may waive any past default with respect to such series and its consequences, except a default:

- (1) in the payment of the principal of (or premium, if any) or interest on any debt security of such series; or
- (2) in respect of a covenant or provision of the applicable indenture that cannot be modified or amended without the consent of each holder affected.

We, when authorized by a board resolution, and the trustee may amend or supplement each indenture or waive any provision of such indenture and the debt securities issued thereunder without the consent of any holders of such debt securities in some circumstances, including:

to cure any ambiguity, omission, defect or inconsistency;

to make any other change that does not, in the good faith opinion of the board and the applicable trustee, adversely affect the interests of holders of such debt securities in any material respect;

to provide for the assumption of our obligations under such indenture by a successor upon any merger, consolidation or asset transfer permitted under such indenture;

Table of Contents

to provide any security for, or guarantees of, such debt securities;

to add events of default with respect to such debt securities;

to add covenants that would benefit the holders of such debt securities or to surrender any rights or powers we have under such indenture;

to make any change necessary to comply with the Trust Indenture Act of 1939, or any amendment thereto, or to comply with any requirement of the SEC in connection with the qualification of such indenture under the Trust Indenture Act of 1939; provided, however, that such modification or amendment does not, in the good faith opinion of the board and the applicable trustee, adversely affect the interests of the holders of such debt securities in any material respect;

to provide for uncertificated debt securities in addition to or in place of certificated debt securities;

to change or eliminate any of the provisions of such indenture; *provided*, *however*, that any such change or elimination will become effective only when there is no debt security outstanding of any series created prior to the execution of such supplemental indenture which is entitled to the benefit of such provision;

to establish the form or terms of debt securities of any series as permitted by such indenture; or

to evidence and provide for the acceptance of appointment by a successor trustee with respect to the debt securities of one or more series and to add to or change any of the provisions of such indenture as will be necessary to provide for or facilitate the administration of the trusts under such indenture by more than one trustee, pursuant to the requirements of such indenture.

Events of Default and Notice Thereof

The following are events that we anticipate will constitute "events of default" with respect to the debt securities of any series issued under the senior indenture or the subordinated indenture:

- (1) default in the payment of any interest upon any debt securities of such series when it becomes due and payable, and continuance of such default for a period of 30 days; or
 - (2) default in the payment of the principal of (or premium, if any, on) any debt securities of such series when due; or
 - (3) default in the deposit of any sinking fund payment, when and as due by the terms of any debt securities of such series; or
- (4) default in the performance, or breach, of any covenant of the Company (other than those set forth in clause (1), (2) or (3) above) in such indenture (other than a covenant or warranty added to such indenture solely for the benefit of another series of debt securities) and continuance of such default for a period of 60 days after there has been given, by registered or certified mail, to the Company by the applicable trustee or to the Company and such trustee by the holders of at least 25% in principal amount of the outstanding debt securities of such series, a written notice specifying such default or breach and requiring it to be remedied and stating that such notice is a "Notice of Default" under such indenture; or
 - (5) certain events of bankruptcy, insolvency or reorganization.

Additional or different events of default, if any, applicable to a series of debt securities in respect of which this prospectus is being delivered will be specified in the applicable prospectus supplement, and if necessary, a post-effective amendment to the registration statement of

which this prospectus forms a part.

Table of Contents

Within 90 days after the occurrence of any default (the term "default" to include the events specified above without grace or notice) with respect to any series of debt securities, unless such default shall have been cured or waived, the trustee under the applicable indenture will give to the holders of such debt securities notice of such default known to such trustee; provided, however, that, except in the case of a default in the payment of principal of (or premium, if any) or interest on any of the debt securities of such series or in the payment of a sinking fund installment, such trustee will be protected in withholding such notice if it in good faith determines that the withholding of such notice is in the interest of the holders of such debt securities; and provided, further, that in the case of any default of the character specified in clause (4) above with respect to debt securities of such series, no such notice to holders of such debt securities will be given until at least 30 days after the occurrence thereof. We will certify to the trustee, within 120 days after the end of each fiscal year of Arch Capital, as to whether any default exists, as described under "Statement by Officers as to Default" above.

If an event of default, other than an event of default resulting from bankruptcy, insolvency or reorganization, with respect to any series of debt securities, occurs and is continuing, the trustee under the applicable indenture or the holders of at least 25% in aggregate principal amount of the debt securities of such series then outstanding, by notice in writing to us (and to such trustee if given by the holders of the debt securities of such series), will be entitled to declare all unpaid principal of and accrued interest on such debt securities then outstanding to be due and payable immediately.

In the case of an event of default resulting from certain events of bankruptcy, insolvency or reorganization, all unpaid principal of and accrued interest on all debt securities of such series then outstanding will be due and payable immediately without any declaration or other act on the part of the trustee under the applicable indenture or the holders of any debt securities of such series.

Such acceleration may be annulled and past defaults (except, unless theretofore cured, a default in payment of principal of or interest on the debt securities of such series) may be waived by the holders of a majority in principal amount of the debt securities of such series then outstanding upon the conditions provided in the applicable indenture.

No holder of the debt securities of any series may pursue any remedy under the applicable indenture unless the trustee under such indenture will have failed to act after, among other things, notice of an event of default and request by holders of at least 25% in principal amount of the debt securities of such series in respect of which the event of default has occurred and the offer to such trustee of indemnity satisfactory to it; provided, however, that such provision does not affect the right to sue for enforcement of any overdue payment on such debt securities.

Conversion and Exchange Rights

The terms and conditions, if any, upon which the debt securities of any series will be convertible into common shares or preference shares or upon which the senior debt securities of any series will be exchangeable into another series of debt securities will be set forth in the prospectus supplement relating thereto. Such terms will include the conversion or exchange price (or manner of calculation thereof), the conversion or exchange period, provisions as to whether conversion or exchange will be at the option of the holders of such series of debt securities or at our option or automatic, the events requiring an adjustment of the conversion or exchange price and provisions affecting conversion or exchange in the event of the redemption of such series of debt securities. The debt securities, if convertible or exchangeable, will not be convertible into or exchangeable for securities of a third party.

The Trustee

The trustee under the indenture pursuant to which a series of debt securities is issued will be named in the prospectus supplement relating to such debt securities. Each indenture will contain certain limitations on a right of the trustee thereunder, as our creditor, to obtain payment of claims in

Table of Contents

certain cases, or to realize on certain property received in respect of any such claim as security or otherwise. The trustee under each indenture will be permitted to engage in other transactions; *provided*, *however*, that if it acquires any conflicting interest, it must eliminate such conflict or resign.

Subject to the terms of the applicable indenture, the holders of a majority in principal amount of all outstanding debt securities of a series (or if more than one series is affected thereby, of all series so affected, voting as a single class) issued under such indenture will have the right to direct the time, method and place of conducting any proceeding for exercising any remedy or power available to the trustee under such indenture.

In case an event of default will occur (and will not be cured) with respect to a series of debt securities and is actually known to a responsible officer of the trustee under the applicable indenture, such trustee will exercise such of the rights and powers vested in it by such indenture and use the same degree of care and skill in its exercise as a prudent person would exercise or use under the circumstances in the conduct of his own affairs. Subject to such provisions, such trustee will not be under any obligation to exercise any of its rights or powers under the applicable indenture at the request of any of the holders of debt securities unless they will have offered to such trustee security and indemnity satisfactory to it.

Governing Law

The indentures and the debt securities will be governed by the laws of the State of New York.

Global Securities; Book-Entry System

We may issue the debt securities of any series in whole or in part in the form of one or more global securities to be deposited with, or on behalf of, a depositary (the "depositary") identified in the prospectus supplement relating to such series. "Global securities" represent in the aggregate the total principal or face amount of the securities and, once on deposit with a depositary, allow trading of the securities through the depositary's book-entry system as further described below). Global securities, if any, issued in the United States are expected to be deposited with The Depository Trust Company ("DTC") (or a nominee thereof), as depositary. Global securities will be issued in fully registered form and may be issued in either temporary or permanent form. Unless and until it is exchanged in whole or in part for the individual debt securities represented thereby, a global security may not be transferred except as a whole by the depositary for such global security to a nominee of such depositary or by a nominee of such depositary or any nominee of such depositary to a successor depositary or any nominee of such successor.

The specific terms of the depositary arrangement with respect to any series of debt securities will be described in the prospectus supplement relating to such series. We expect that unless otherwise indicated in the applicable prospectus supplement, the following provisions will apply to depositary arrangements.

Upon the issuance of a global security, the depositary for such global security or its nominee will credit on its book-entry registration and transfer system the respective principal amounts of the individual debt securities represented by such global security to the accounts of persons that have accounts with such depositary ("participants"). Such accounts will be designated by the underwriters, dealers or agents with respect to such debt securities or by us if such debt securities are offered directly by us. Ownership of beneficial interests in such global security will be limited to participants or persons that may hold interests through participants.

We expect that, pursuant to procedures established by DTC, ownership of beneficial interests in any global security with respect to which DTC is the depositary will be shown on, and the transfer of

Table of Contents

that ownership will be effected only through, records maintained by DTC or its nominee (with respect to beneficial interests of participants) and records of participants (with respect to beneficial interests of persons who hold through participants). Neither we nor the applicable trustee will have any responsibility or liability for any aspect of the records of DTC or for maintaining, supervising or reviewing any records of DTC or any of its participants relating to beneficial ownership interests in the debt securities. The laws of some states require that certain purchasers of securities take physical delivery of such securities in definitive form. Such limits and laws may impair the ability to own, pledge or transfer beneficial interest in a global security.

So long as the depositary for a global security or its nominee is the registered owner of such global security, such depositary or such nominee, as the case may be, will be considered the sole owner or holder of the debt securities represented by such global security for all purposes under the applicable indenture. Except as described below or in the applicable prospectus supplement, owners of beneficial interests in a global security will not be entitled to have any of the individual debt securities represented by such global security registered in their names, will not receive or be entitled to receive physical delivery of any such debt securities in definitive form and will not be considered the owners or holders thereof under the applicable indenture. Beneficial owners of debt securities evidenced by a global security will not be considered the owners or holders thereof under the applicable indenture for any purpose, including with respect to the giving of any direction, instructions or approvals to the trustee thereunder. Accordingly, each person owning a beneficial interest in a global security with respect to which DTC is the depositary must rely on the procedures of DTC and, if such person is not a participant, on the procedures of the participant through which such person owns its interests, to exercise any rights of a holder under the applicable indenture. We understand that, under existing industry practice, if we request any action of holders or if an owner of a beneficial interest in a global security desires to give or take any action which a holder is entitled to give or take under the applicable indenture, DTC would authorize the participants holding the relevant beneficial interest to give or take such actions or would otherwise act upon the instructions of beneficial owners holding through them.

Payments of principal of, and any interest on, individual debt securities represented by a global security registered in the name of a depositary or its nominee will be made to or at the direction of the depositary or its nominee, as the case may be, as the registered owner of the global security under the applicable indenture. Under the terms of each indenture, we and the trustee under such indenture may treat the persons in whose name debt securities, including a global security, are registered as the owners thereof for the purpose of receiving such payments. Consequently, neither we nor such trustee has or will have any responsibility or liability for the payment of such amounts to beneficial owners of debt securities (including principal and interest). We believe, however, that it is currently the policy of DTC to immediately credit the accounts of relevant participants with such payments, in amounts proportionate to their respective holdings of beneficial interests in the relevant global security as shown on the records of DTC or its nominee. We also expect that payments by participants to owners of beneficial interests in such global security held through such participants will be governed by standing instructions and customary practices, as is the case with securities held for the account of customers registered in street name, and will be the responsibility of such participants. Redemption notices with respect to any debt securities represented by a global security will be sent to the depositary or its nominee. If less than all of the debt securities of any series are to be redeemed, we expect the depositary to determine the amount of the interest of each participant in such debt securities to be redeemed to be determined by lot. None of us, the trustee under the applicable indenture, any paying agent or the registrar for such debt securities will have any responsibility or liability for any aspect of the records relating to or payments made on account of beneficial ownership interests in the global sec

Table of Contents

Neither we nor the trustee under the applicable indenture will be liable for any delay by the holders of a global security or the depositary in identifying the beneficial owners of debt securities and we and such trustee may conclusively rely on, and will be protected in relying on, instructions from the holder of a global security or the depositary for all purposes. The rules applicable to DTC and its participants are on file with the SEC.

If a depositary for any debt securities is at any time unwilling, unable or ineligible to continue as depositary and a successor depositary is not appointed by us within 90 days, we will issue individual debt securities in exchange for the global security representing such debt securities.

All moneys paid by us to a paying agent or a trustee for the payment of the principal of or interest on any debt security which remain unclaimed at the end of two years after such payment has become due and payable will be repaid to us, and the holder of such debt security thereafter may look only to us for payment thereof.

Non-U.S. Currency

If the purchase price of any debt securities is payable in a currency other than U.S. dollars, the specific terms with respect to such debt securities and such foreign currency will be specified in the applicable prospectus supplement.

DESCRIPTION OF ARCH CAPITAL DEPOSITARY SHARES

General

We may, at our option, elect to offer depositary shares, each consisting of one or more, or a specified fraction (to be set forth in the prospectus supplement relating to our common shares or a particular series of preference shares) of a common share or a preference share of a particular series as described below. In the event we elect to do so, depositary receipts evidencing depositary shares will be issued to the public.

The common shares or a class or series of preference shares represented by depositary shares will be deposited under a deposit agreement among us, a depositary selected by us (the "depositary") and the holders of the depositary receipts. The depositary will be a bank or trust company having its principal office in the United States and having a combined capital and surplus of at least \$50,000,000. Subject to the terms of the deposit agreement, each owner of a depositary share will be entitled, in proportion to the applicable fraction of a common share or preference share represented by such depositary share, to all the rights and preferences of the common shares or preference shares represented thereby (including dividend, voting, redemption and liquidation rights).

The depositary shares will be evidenced by depositary receipts issued pursuant to the deposit agreement. Depositary receipts will be distributed to those persons purchasing the fractional shares of the common shares or related class or series of preference shares in accordance with the terms of the offering described in the related prospectus supplement. If we issue depositary shares, we will file copies of the forms of deposit agreement and depositary receipt as exhibits to the registration statement of which this prospectus forms a part, and the following summary is qualified in its entirety by reference to such exhibits.

Pending the preparation of definitive depositary receipts, the depositary may, upon our written order, issue temporary depositary receipts substantially identical to (and entitling the holders thereof to all the rights pertaining to) the definitive depositary receipts but not in definitive form. Definitive depositary receipts will be prepared thereafter without unreasonable delay, and temporary depositary receipts will be exchangeable for definitive depositary receipts without charge to the holder thereof.

Table of Contents

The following description of the depositary shares sets forth the material terms and provisions of the depositary shares to which any prospectus supplement may relate. The particular terms of the depositary shares offered by any prospectus supplement, and the extent to which the general provisions described below may apply to the offered securities, will be described in such prospectus supplement.

Dividends and Other Distributions

The depositary will distribute all cash dividends or other distributions received in respect of the related common shares or class or series of preference shares to the record holders of depositary shares relating to such common shares or class or series of preference shares in proportion to the number of such depositary shares owned by such holders.

In the event of a distribution other than in cash, the depositary will distribute property received by it to the record holders of depositary shares entitled thereto, unless the depositary determines that it is not feasible to make such distribution, in which case the depositary may, with our approval, sell such property and distribute the net proceeds from such sale to such holders.

Withdrawal of Shares

Upon surrender of the depositary receipts at the corporate trust office of the depositary (unless the related depositary shares have previously been called for redemption), the holder of the depositary shares evidenced thereby is entitled to delivery of the number of whole shares of the related common shares or class or series of preference shares and any money or other property represented by such depositary shares. Holders of depositary shares will be entitled to receive whole shares of the related common shares or class or series of preference shares on the basis set forth in the prospectus supplement for such common shares or class or series of preference shares, but holders of such whole common shares or preference shares will not thereafter be entitled to exchange them for depositary shares. If the depositary receipts delivered by the holder evidence a number of depositary shares in excess of the number of depositary shares representing the number of whole common shares or preference shares to be withdrawn, the depositary will deliver to such holder at the same time a new depositary receipt evidencing such excess number of depositary shares. In no event will fractional common shares or preference shares be delivered upon surrender of depositary receipts to the depositary.

Redemption of Depositary Shares

Whenever we redeem common shares or preference shares held by the depositary, the depositary will redeem as of the same redemption date the number of depositary shares representing shares of common shares or the related class or series of preference shares so redeemed. The redemption price per depositary share will be equal to the applicable fraction of the redemption price per share payable with respect to such class or series of the common shares or preference shares. If less than all the depositary shares are to be redeemed, the depositary shares to be redeemed will be selected by lot or *pro rata* as may be determined by the depositary.

Voting the Common Shares or Preference Shares

Upon receipt of notice of any meeting at which the holders of the common shares or preference shares are entitled to vote, the depositary will mail the information contained in such notice of meeting to the record holders of the depositary shares relating to such common shares or preference shares. Each record holder of such depositary shares on the record date (which will be the same date as the record date for the common shares or preference shares, as applicable) will be entitled to instruct the depositary as to the exercise of the voting rights pertaining to the amount of the class or series of preference shares or common shares represented by such holder's depositary shares. The depositary will

Table of Contents

endeavor, insofar as practicable, to vote the number of the common shares or preference shares represented by such depositary shares in accordance with such instructions, and we will agree to take all action which the depositary deems necessary in order to enable the depositary to do so. The depositary will abstain from voting common shares or preference shares to the extent it does not receive specific instructions from the holders of depositary shares representing such common shares or preference shares.

Amendment and Termination of the Deposit Agreement

The form of depositary receipt evidencing the depositary shares and any provision of the deposit agreement may at any time be amended by agreement between us and the depositary. However, any amendment which materially and adversely alters the rights of the holders of depositary receipts will not be effective unless such amendment has been approved by the holders of depositary receipts representing at least a majority (or, in the case of amendments relating to or affecting rights to receive dividends or distributions or voting or redemption rights, $66^2/3\%$, unless otherwise provided in the related prospectus supplement) of the depositary shares then outstanding. The deposit agreement may be terminated by us or the depositary only if (1) all outstanding depositary shares have been redeemed, (2) there has been a final distribution in respect of the common shares or the related class or series of preference shares in connection with our liquidation, dissolution or winding-up and such distribution has been distributed to the holders of depositary receipts or (3) upon the consent of holders of depositary receipts representing not less than $66^2/3\%$ of the depositary shares outstanding.

Charges of Depositary

We will pay all transfer and other taxes and governmental charges arising solely from the existence of the depositary arrangements. We will also pay charges of the depositary in connection with the initial deposit of the related common shares or class or series of preference shares and any redemption of such common shares or preference shares. Holders of depositary receipts will pay all other transfer and other taxes and governmental charges and such other charges as are expressly provided in the deposit agreement to be for their accounts.

The depositary may refuse to effect any transfer of a depositary receipt or any withdrawal of shares of common shares or a class or series of preference shares evidenced thereby until all such taxes and charges with respect to such depositary receipt or such common shares or preference shares are paid by the holders thereof.

Non-U.S. Currency

If the purchase price of any depositary shares is payable in a currency other than U.S. dollars, the specific terms with respect to such depositary shares and such foreign currency will be specified in the applicable prospectus supplement.

Miscellaneous

The depositary will forward all reports and communications from us which are delivered to the depositary and which we are required to furnish to the holders of the common shares or preference shares.

Table of Contents

DESCRIPTION OF ARCH CAPITAL WARRANTS TO PURCHASE COMMON SHARES OR PREFERENCE SHARES

General

We may issue common share warrants or preference share warrants (collectively, "share warrants") independently or together with any securities offered by any prospectus supplement and such common share warrants or preference share warrants may be attached to or separate from such securities. Each series of share warrants will be issued under a separate warrant agreement to be entered into between us and a bank or trust company, as warrant agent, all as set forth in the applicable prospectus supplement. The warrant agent will act solely as our agent in connection with the certificates representing the share warrants and will not assume any obligation or relationship of agency or trust for or with any holders of share warrant certificates or beneficial owners of share warrants.

The following summaries of certain provisions of the warrant agreement and share warrant certificate are not complete. You should look at the warrant agreement relating to, and the applicable share warrant certificate representing, the applicable series of common share warrants or preference share warrants.

The applicable prospectus supplement may also state that any of the terms set forth herein are inapplicable to such series. Share warrants will be offered and exercisable for U.S. dollars only and will be in registered form only.

Terms

An applicable prospectus supplement will set forth and describe other specific terms regarding each series of share warrants to be offered hereby and thereby, including:

- (1) the offering price;
- (2) the number of common shares or preference shares purchasable upon exercise of each such common share warrant or preference share warrant and the price at which such number of common shares or preference shares may be purchased upon such exercise;
 - (3) the date on which the right to exercise such share warrants will commence and the date on which such right will expire; and
 - (4) any other terms of such share warrants.

Exercise of Share Warrants

Each share warrant will entitle the holder thereof to purchase such common shares or preference shares, as the case may be, at such exercise price as will in each case be set forth in, or calculable from, the prospectus supplement relating to such share warrant. After the close of business on the expiration date of each share warrant or such later date to which such expiration date may be extended by us, unexercised share warrants will become void.

Share warrants may be exercised by delivering to the warrant agent payment as provided in the applicable prospectus supplement of the amount required to purchase the common shares or preference shares purchasable upon such exercise, together with certain information set forth on the reverse side of the share warrant certificate. Upon receipt of such payment and the share warrant certificate properly completed and duly executed at the corporate trust office of the warrant agent or any other office indicated in the applicable prospectus supplement, we will, as soon as practicable, issue and deliver the common shares or preference shares purchasable upon such exercise. If fewer than all of the share warrants represented by such share certificate are exercised, a new share warrant certificate will be issued for the remaining amount of share warrants.

Table of Contents

Amendments and Supplements to Warrant Agreement

The warrant agreement for a series of share warrants may be amended or supplemented without the consent of the holders of the share warrants issued thereunder to effect changes that are not inconsistent with the provisions of the share warrants and that do not adversely affect the interests of the holders of the share warrants.

Anti-dilution and Other Provisions

Unless otherwise indicated in the applicable prospectus supplement, the exercise price of, and the number of common shares or preference shares covered by, each share warrant is subject to adjustment in certain events, including:

- (1) the issuance of common shares or preference shares as a dividend or distribution on the common shares or preference shares;
- (2) certain subdivisions and combinations of the common shares or preference shares;
- (3) the issuance to all holders of common shares or preference shares of certain rights or warrants entitling them to subscribe for or purchase common shares or preference shares at less than the current market value, as defined in the applicable warrant agreement for such series of share warrants; and
- (4) the distribution to all holders of common shares or preference shares of certain evidences of our indebtedness or assets, other than certain cash dividends and distributions described below.

No adjustment in the exercise price of, and the number of shares covered by, a share warrant will be made for regular quarterly or other periodic or recurring cash dividends or distributions or for cash dividends or distributions to the extent paid from retained earnings. No adjustment will be required unless such adjustment would require a change of at least one percent in the exercise price and exercise rate then in effect; *provided*, *however*, that any such adjustment not so made will be carried forward and taken into account in any subsequent adjustment; *provided*, *further*, that any such adjustment not so made will be made no later than three years after the occurrence of the event requiring such adjustment to be made or carried forward. Except as stated above, the exercise price of, and the number of common shares or preference shares covered by, a share warrant will not be adjusted for the issuance of common shares or preference shares or any securities convertible into or exchangeable for common shares or preference shares, or securities carrying the right to purchase any of the foregoing.

In the case of:

- (1) a reclassification or change of the common shares or preference shares;
- (2) certain consolidation or merger events involving us; or
- (3) a sale or conveyance to another corporation of our property and assets as an entirety or substantially as an entirety,

in each case as a result of which holders of our common shares or preference shares will be entitled to receive stock, securities, other property or assets (including cash) with respect to or in exchange for such shares, the holders of the share warrants then outstanding will be entitled thereafter to convert such share warrants into the kind and amount of common shares, preference shares and other securities or property which they would have received upon such reclassification, change, consolidation, merger, sale or conveyance had such share warrants been exercised immediately prior to such reclassification, change, consolidation, merger, sale or conveyance.

Table of Contents

Non-U.S. Currency

If the purchase price of any share warrants is payable in a currency other than U.S. dollars, the specific terms with respect to such share warrants and such foreign currency will be specified in the applicable prospectus supplement.

DESCRIPTION OF ARCH CAPITAL WARRANTS TO PURCHASE DEBT SECURITIES

General

We may issue debt warrants independently or together with any securities offered by any prospectus supplement and such debt warrants may be attached to or separate from such securities. Each series of debt warrants will be issued under a separate debt warrant agreement to be entered into between us and a debt warrant agent, all as set forth in the applicable prospectus supplement. The debt warrant agent will act solely as our agent in connection with the certificates representing the debt warrants and will not assume any obligation or relationship of agency or trust for or with any holders of debt warrant certificates or beneficial owners of debt warrants.

The following summaries of certain provisions of the debt warrant agreement and debt warrant certificate are not complete. You should look at the debt warrant agreement relating to, and the debt warrant certificate representing, a series of debt warrants.

The applicable prospectus supplement may also state that any of the terms set forth herein are inapplicable to such series. Debt warrants will be offered and exercisable for U.S. dollars only and will be in registered form only.

Terms

An applicable prospectus supplement will set forth and describe other specific terms regarding each series of debt warrants to be offered hereby and thereby, including:

- (1) the offering price;
- (2) the designation, aggregate principal amount and the terms of the debt securities purchasable upon exercise of the debt warrants;
 - (3) the date on which the right to exercise such debt warrants will commence and the date on which such right will expire; and
 - (4) any other terms of such debt warrants.

Warrant holders will not have any of the rights of holders of debt securities, including the right to receive the payment of principal of, any premium or interest on, or any additional amounts with respect to, the debt securities or to enforce any of the covenants of the debt securities or the applicable indenture except as otherwise provided in such indenture.

Exercise of Debt Warrants

Debt warrants may be exercised by delivering to the debt warrant agent payment as provided in the applicable prospectus supplement, together with certain information set forth on the reverse side of the debt warrant certificate. Upon receipt of such payment and the debt warrant certificate properly completed and duly executed at the corporate trust office of the debt warrant agent or any other office indicated in the applicable prospectus supplement, we will, as soon as practicable, issue and deliver the debt securities purchasable upon such exercise. If fewer than all of the debt warrants represented by such debt warrant certificate are exercised, a new debt warrant certificate will be issued for the remaining amount of debt warrants.

Table of Contents

Amendments and Supplements to Warrant Agreement

The debt warrant agreement for a series of debt warrants may be amended or supplemented without the consent of the holders of the debt warrants issued thereunder to effect changes that are not inconsistent with the provisions of the debt warrants and that do not adversely affect the interests of the holders of the debt warrants.

Non-U.S. Currency

If the purchase price of any debt warrants is payable in a currency other than U.S. dollars, the specific terms with respect to such debt warrants and such foreign currency will be specified in the applicable prospectus supplement.

DESCRIPTION OF ARCH CAPITAL SHARE PURCHASE CONTRACTS AND SHARE PURCHASE UNITS

Arch Capital may issue share purchase contracts, representing contracts obligating the holders thereof to purchase from Arch Capital, and Arch Capital to sell to such holders, or obligating the holders thereof to sell to Arch Capital, and Arch Capital to purchase from such holders, a fixed or varying number of common shares at a future date or dates. The price per common share may be fixed at the time the share purchase contracts are entered into or may be determined by reference to a specific formula set forth in the share purchase contracts. Any share purchase contract may include anti-dilution provisions to adjust the number of shares to be delivered pursuant to such share purchase contract upon the occurrence of certain events. The share purchase contracts may be entered into separately or as a part of share purchase units consisting of one or more share purchase contracts and any one or more of:

- (1) debt securities of Arch Capital (which may be senior or subordinated);
- (2) debt securities of Arch Capital Group (U.S.) Inc. (which may be senior or subordinated), fully and unconditionally guaranteed by Arch Capital;
 - (3) preference shares of Arch Capital;
 - (4) preference shares of Arch Capital Group (U.S.) Inc., fully and unconditionally guaranteed by Arch Capital; or
 - (5) debt or equity obligations of third parties, including U.S. Treasury securities.

The share purchase contracts may require us to make periodic payments to the holders of the share purchase units or vice versa, and such payments may be unsecured or pre-funded and may be paid on a current or on a deferred basis. The share purchase contracts may require holders to secure their obligations in a specified manner and in certain circumstances we may deliver newly-issued prepaid share purchase contracts upon release to a holder of any collateral securing such holder's obligations under the original share purchase contract. Any one or more of the above securities, common shares or the share purchase contracts or other collateral may be pledged as security for the holders' obligations to purchase or sell, as the case may be, the common shares under the share purchase contracts. The share purchase contracts may also allow the holders, under certain circumstances, to obtain the release of the security for their obligations under such contracts by depositing with the collateral agent as substitute collateral, treasury securities with a principal amount at maturity equal to the collateral so released or the maximum number of common shares deliverable by such holders under common share purchase contracts requiring the holders to sell common shares to Arch Capital.

Table of Contents

The applicable prospectus supplement may contain, where applicable, the following information about the share purchase contracts and share purchase units, as the case may be:

whether the share purchase contracts obligate the holder to purchase or sell, or both purchase and sell, our common shares and the nature and amount of such common shares, or the method of determining those amounts;

whether the share purchase contracts are to be prepaid or not;

whether the share purchase contracts are to be settled by delivery, or by reference or linkage to the value, performance or level of our common shares;

any acceleration, cancellation, termination or other provisions relating to the settlement of the share purchase contracts;

the designation and terms of the share purchase units and of the securities composing the share purchase units, including whether and under what circumstances those securities may be held or transferred separately;

any provisions for the issuance, payment, settlement, transfer or exchange of the share purchase units or of the securities comprising the share purchase units; and

whether the share purchase contracts and/or stock purchase units will be issued fully registered or global form.

The applicable prospectus supplement will describe the terms of any share purchase contracts or share purchase units and, if applicable, prepaid share purchase contracts. The description in the prospectus supplement will be qualified in its entirety by reference to (1) the share purchase contracts, (2) the collateral arrangements and depositary arrangements, if applicable, relating to such share purchase contracts or share purchase units and (3) if applicable, the prepaid share purchase contracts and the document pursuant to which such prepaid share purchase contracts will be issued.

Non-U.S. Currency

If the purchase price of any share purchase contract is payable in a currency other than U.S. dollars, the specific terms with respect to such share purchase contract and such foreign currency will be specified in the applicable prospectus supplement.

DESCRIPTION OF ARCH CAPITAL GROUP (U.S.) INC. PREFERRED STOCK

General

In this section, references to "Arch US" refer solely to Arch Capital Group (U.S.) Inc. and not its subsidiaries.

The following summary of terms of Arch US's preferred stock is not complete. You should refer to the provisions of Arch US's certificate of incorporation and by-laws, the Delaware General Corporation Law and the terms of each class or series of the preferred stock which will be filed with the SEC at or prior to the time of issuance of such class or series of preferred stock and described in the applicable prospectus supplement. The applicable prospectus supplement may also state that any of the terms set forth herein are inapplicable to such series of preferred stock.

Under Arch US's certificate of incorporation, Arch US's board of directors is authorized to issue shares of preferred stock in one or more series, and may fix the terms of those shares, including as to the number of shares to be included in the series, the designation, powers, preferences and rights of the shares of the series and the qualifications, limitations or restrictions of such series.

Table of Contents

As of the date of this prospectus, Arch US is authorized to issue up to 1,000 shares of preferred stock, par value \$0.01 per share.

The rights of holders of the preferred stock offered may be adversely affected by the rights of holders of any shares of preferred stock that may be issued in the future. Arch US's board of directors may cause shares of preferred stock to be issued in public or private transactions for any proper corporate purpose.

Terms

The terms of each series of preferred stock will be described in any prospectus supplement related to such series of preferred stock.

Arch US's board of directors in approving the issuance of a series of preferred stock has authority to determine, and the applicable prospectus supplement may set forth with respect to such series, the following terms, among others:

the number of shares constituting that series and the distinctive designation of that series;

the dividend rate on the shares of that series, if any, whether dividends will be cumulative and, if so, from which date or dates, and the relative rights of priority, if any, of payment of dividends on shares of that series;

the voting rights for shares of the series, if any, in addition to the voting rights provided by law, and the terms of such voting rights;

the conversion or exchange privileges for shares of the series, if any, and the terms and conditions of such conversion or exchange, including provisions for adjustment of the conversion or exchange rate in such events as Arch US's board of directors will determine;

whether or not the shares of that series will be redeemable and, if so, the terms and conditions of such redemption, including the manner of selecting shares for redemption if less than all shares are to be redeemed, the date or dates upon or after which they will be redeemable, and the amount per share payable in case of redemption, which amount may vary under different conditions and at different redemption dates;

any sinking fund for the redemption or purchase of shares of that series and the terms and amount of such sinking fund;

the right of the shares of that series to the benefit of conditions and restrictions upon the creation of indebtedness of Arch US or any of its subsidiaries, upon the issue of any additional shares (including additional shares of such series or any other series) and upon the payment of dividends or the making of other distributions on, and the purchase, redemption or other acquisition by Arch US or any of Arch US's subsidiaries of, any of Arch US's outstanding shares;

the rights of the shares of that series in the event of Arch US's voluntary or involuntary liquidation, dissolution or winding up, and the relative rights of priority, if any, of payment of shares of that series; and

any other relative participating, optional or other special rights, qualifications, limitations or restrictions of that series.

Non-U.S. Currency

If the purchase price of any preferred stock is payable in a currency other than U.S. dollars, the specific terms with respect to such preferred stock and such foreign currency will be specified in the applicable prospectus supplement.

Table of Contents

Guarantee

Payment of the guarantee payments (as defined below) in respect of the preferred stock will be fully and unconditionally guaranteed on an unsecured basis by Arch Capital. The guarantee will be an unsecured obligation of Arch Capital and will rank (i) subordinate and junior in right of payment, and subject, to all liabilities of Arch Capital, except those made *pari passu* or subordinate by their terms, (ii) *pari passu* with the most senior preferred stock or preference shares now or hereafter issued by Arch Capital and with any guarantee now or hereafter entered into by Arch Capital in respect of any of the most senior preferred stock or preference stock of any affiliate of Arch Capital, and (iii) senior to all common shares now or hereafter issued by Arch Capital.

As of December 31, 2011, the aggregate amount of Arch Capital's consolidated total liabilities was approximately \$12.5 billion, all of which would be senior to the guarantee. As of December 31, 2011, the aggregate liquidation preference of Arch Capital's outstanding Preferred Stock was approximately \$325.0 million, all of which would rank *pari passu* with the guarantee.

The following payments or distributions, without duplication (the "guarantee payments"), with respect to the preferred stock, to the extent provided for in the applicable certificate of designations and to the extent not paid when payable by Arch US, will be subject to the guarantee:

any accrued (and, if applicable, accumulated) and unpaid dividends that have been properly declared by the board of directors of Arch US on the preferred stock out of funds legally available therefor;

the redemption price payable by Arch US on the redemption of the preferred stock in accordance with the terms set forth in the applicable certificate of designations upon the preferred stock being duly called for redemption; and

the aggregate of the liquidation amount payable by Arch US upon the preferred stock in accordance with the terms set forth in the applicable certificate of designations upon a voluntary or involuntary dissolution, winding-up or liquidation of Arch US.

DESCRIPTION OF ARCH CAPITAL GROUP (U.S.) INC. UNSECURED DEBT SECURITIES

General

In this section, references to "Arch US" refer solely to Arch Capital Group (U.S.) Inc. and not its subsidiaries.

Arch US may issue debt securities from time to time in one or more series, under one or more indentures, each dated as of a date on or prior to the issuance of the debt securities to which it relates. Senior debt securities and subordinated debt securities may be issued pursuant to separate indentures, a senior indenture and a subordinated indenture, respectively, in each case among Arch US, Arch Capital and a trustee qualified under the Trust Indenture Act. The forms of such indentures have been filed as an exhibit to the registration statement of which this prospectus is a part, subject to such amendments or supplements as may be adopted from time to time. The senior indenture and the subordinated indenture, as amended or supplemented from time to time, are sometimes referred to individually as an "indenture" and collectively as the "indentures." Each indenture will be subject to and governed by the Trust Indenture Act. The aggregate principal amount of debt securities which may be issued under each indenture will be unlimited and each indenture will set forth the specific terms of any series of debt securities or provide that such terms will be set forth in, or determined pursuant to, an authorizing resolution, as defined in the applicable prospectus supplement, and/or a supplemental indenture, if any, relating to such series.

Table of Contents

The statements made below relating to the debt securities and the indentures are summaries of the anticipated provisions thereof, do not purport to be complete and are subject to, and are qualified in their entirety by reference to, all of the provisions of the applicable indenture and any applicable U.S. federal income tax considerations as well as any applicable modifications of or additions to the general terms described below in the applicable prospectus supplement. The applicable prospectus supplement may also state that any of the terms set forth herein are inapplicable to such series of debt securities.

Terms

The debt securities will be Arch US's unsecured obligations and will be fully and unconditionally guaranteed by Arch Capital, as the guarantor.

The senior debt securities will rank equal in right of payment with all Arch US's other unsecured and unsubordinated indebtedness.

The subordinated debt securities will be subordinated in right of payment to the prior payment in full of all of Arch US's senior indebtedness, which is defined in the section called "Ranking of Debt Securities" below.

The specific terms of each series of debt securities will be set forth in the applicable prospectus supplement relating thereto, including the following, as applicable:

- (1) the title of such debt securities and whether such debt securities are senior debt securities or subordinated debt securities and, if subordinated debt securities, the specific subordination provisions applicable thereto;
 - (2) the aggregate principal amount of such debt securities and any limit on such aggregate principal amount;
- (3) if the price (expressed as a percentage of the aggregate principal amount thereof) at which such debt securities will be issued is a price other than the principal amount thereof, the portion of the principal amount thereof payable upon declaration of acceleration of the maturity thereof, or, if applicable, the portion of the principal amount of such debt securities that is convertible into another security or the method by which any such portion will be determined;
- (4) if convertible into Arch Capital's common shares, Arch Capital's preference shares or Arch US's preferred stock, the terms on which such debt securities are convertible, including the initial conversion price, the conversion period, any events requiring an adjustment of the applicable conversion price and any requirements relating to the reservation of such Arch Capital common shares, Arch Capital preference shares or Arch US preferred stock for purposes of conversion;
- (5) the date(s), or the method for determining such date or dates, on which the principal of such debt securities will be payable and, if applicable, the terms on which such maturity may be extended;
- (6) the rate(s) (which may be fixed or floating), or the method by which such rate or rates will be determined, at which such debt securities will bear interest, if any, including, if applicable, that such debt securities will bear interest at an increased rate (up to a specified maximum) upon the occurrence of an event of default and/or under certain circumstances described in the applicable prospectus supplement (which may include, among other things, a reduction in the trading price of Arch Capital's common shares below certain levels for a minimum period of time);
- (7) the date(s), or the method for determining such date or dates, from which any such interest will accrue, the dates on which any such interest will be payable, the record dates for such interest payment dates, or the method by which such dates will be determined, the persons to

Table of Contents

whom such interest will be payable, and the basis upon which interest will be calculated if other than that of a 360-day year of twelve 30-day months;

- (8) the place(s) where the principal of and interest, if any, on such debt securities will be payable, where such debt securities may be surrendered for registration of transfer or exchange and where notices or demands to or upon Arch US in respect of such debt securities and the applicable indenture may be served;
- (9) the period(s), if any, within which, the price or prices or ratios at which and the terms and conditions upon which such debt securities may, pursuant to any optional or mandatory redemption provisions, be redeemed, in whole or in part, at Arch US's option;
- (10) Arch US's obligation, if any, to redeem, repay or repurchase such debt securities pursuant to any sinking fund or analogous provisions or at the option of a holder thereof, and the period or periods within which, the price or prices at which and the terms and conditions upon which such debt securities will be redeemed, repaid or purchased, in whole or in part, pursuant to such obligation;
- (11) if other than U.S. dollars, the currency or currencies in which the principal of and interest, if any, on such debt securities are denominated and payable, which may be a foreign currency or units of two or more foreign currencies or a composite currency or currencies, and the terms and conditions relating thereto;
- (12) whether interest on such debt securities will be payable, at Arch US's option or the option of a holder thereof, in cash or additional debt securities and the terms and conditions upon which the election may be made;
- (13) whether the amount of payments of principal of or interest, if any, on such debt securities may be determined with reference to an index, formula or other method (which index, formula or method may, but need not be, based on the yield on or trading price of other securities, including United States Treasury securities, or on a currency, currencies, currency unit or units, or composite currency or currencies) and the manner in which such amounts will be determined;
- (14) whether the principal of or interest, if any, on such debt securities is to be payable, at Arch US's election or at the election of a holder thereof, in a currency or currencies, currency unit or units or composite currency or currencies other than that in which such debt securities are stated to be payable and the period or periods within which, and the terms and conditions upon which, such election may be made;
- (15) provisions, if any, granting special rights to the holders of such debt securities upon the occurrence of such events as may be specified;
- (16) any deletions from, modifications of or additions to the events of default or Arch US's covenants with respect to such debt securities;
- (17) whether such debt securities are to be issuable initially as individual debt securities and/or in temporary global form and/or permanent global form (and, if so, whether beneficial owners of interests in any such security in permanent global form may exchange such interests for debt securities of the same series and of like tenor of any authorized form and denomination and the circumstances under which any such exchanges may occur, if other than in the manner provided in the applicable indenture) and, if such debt securities are to be issuable as a global security, the identity of the depositary therefor;
 - (18) any listing of such debt securities on any securities exchange;
- (19) the applicability, if any, of the defeasance and covenant defeasance provisions of the applicable indenture to such debt securities;

Table of Contents

(20) if exchangeable into another series of debt securities of Arch US, the terms on which such debt securities are exchangeable; and

(21) any other terms of such debt securities and any additions, deletions or modifications to the applicable indenture.

The debt securities, if convertible or exchangeable, will not be convertible into or exchangeable for securities of a third party.

If the applicable prospectus supplement so provides, the debt securities may be issued at a discount below their principal amount and provide for less than the entire principal amount thereof to be payable upon declaration of acceleration of the maturity thereof or provable in bankruptcy.

Except as may be set forth in the applicable prospectus supplement, the debt securities will not contain any provisions that would limit Arch US's ability to incur indebtedness or that would afford holders of debt securities protection against transactions involving Arch US, including a highly leveraged transaction involving Arch US or a change of control. The applicable prospectus supplement will contain information with respect to any deletions from, modifications of or additions to the events of default or covenants described below, including any addition of a covenant or other provision providing event risk or similar protection.

Denomination, Interest, Registration and Transfer

Arch US will issue the debt securities of each series only in registered form, without coupons, in denominations of \$1,000, or in such other currencies or denominations as may be specified in an authorizing resolution and/or supplemental indenture, if any, relating to such series of debt securities.

The principal of and interest, if any, on any series of debt securities will be payable at the corporate trust office of the trustee, the address of which will be stated in the applicable prospectus supplement. However, at Arch US's option, interest payments may be made by check mailed to the address of the person entitled thereto as it appears in the applicable register for such debt securities.

Subject to certain limitations imposed upon debt securities issued in book-entry form, the debt securities of any series:

will be exchangeable for any authorized denomination of other debt securities of the same series and of a like aggregate principal amount and tenor upon surrender of such debt securities at the trustee's corporate trust office or at the office of any registrar designated by Arch US for such purpose; and

may be surrendered for registration of transfer or exchange thereof at the corporate trust office of the trustee or at the office of any registrar designated by Arch US for such purpose.

No service charge will be made for any registration of transfer or exchange, but Arch US may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection with certain transfers and exchanges. Arch US may act as registrar and may change any registrar without notice.

Guarantee

Payment of principal, premium, if any, and interest on the debt securities will be fully and unconditionally guaranteed on an unsecured basis by Arch Capital. The guarantee will be, in the case of (a) the senior debt securities, an unsecured unsubordinated obligation of Arch Capital and will (i) rank equal in right of payment with all Arch Capital's other unsecured and unsubordinated indebtedness, (ii) be effectively subordinated in right of payment to all Arch Capital's secured indebtedness to the extent of the value of the assets securing such indebtedness and (iii) be structurally

Table of Contents

subordinated to the indebtedness and other obligations (including insurance obligations) of Arch Capital's subsidiaries and (b) the subordinated debt securities, an unsecured subordinated obligation of Arch Capital and will (i) be subordinated in right of payment with all Arch Capital's unsubordinated indebtedness and (ii) be structurally subordinated to the indebtedness and other obligations (including insurance obligations) of Arch Capital's subsidiaries.

The guarantee of the subordinated debt securities is subject to the blockage period described below under " Ranking of the Debt Securities Subordinated Debt Securities."

As of December 31, 2011, the aggregate amount of Arch Capital's outstanding consolidated indebtedness for money borrowed was approximately \$400.0 million, all of which was unsecured and unsubordinated. As of December 31, 2011, the consolidated obligations of Arch Capital's subsidiaries reflected on Arch Capital's balance sheet was approximately \$12.1 billion, all of which would be structurally senior to the guarantee.

Certain Covenants

The applicable prospectus supplement will describe any material covenants in respect of a series of debt securities that are not described in this prospectus.

Unless otherwise indicated in the applicable prospectus supplement, the senior debt securities and the subordinated debt securities will include the provisions described below.

Merger, Amalgamation, Consolidation or Sale of Assets

Arch Capital may not, and will not permit Arch US to, consolidate or amalgamate with or merge with or into any other person (other than a subsidiary) or convey, transfer, sell or lease Arch US's properties and assets substantially as an entirety to any person (other than a subsidiary), or permit any person (other than a subsidiary) to consolidate with or merge into Arch US or Arch Capital, as the case may be, unless:

either (a) Arch US or Arch Capital, as the case may be, shall be the surviving person or (b) the surviving person (if other than Arch US or Arch Capital, as the case may be) shall (1) be a corporation or limited liability company organized and existing under the laws of the United States of America, any state thereof, the District of Columbia, Bermuda, the Cayman Islands or any country or state which is a member of the Organization of Economic Cooperation and Development and (2) expressly assume, by an indenture supplemental to the applicable indenture, executed and delivered to the applicable trustee, in form reasonably satisfactory to such trustee, all of the obligations of Arch US or Arch Capital, as the case may be, under the applicable debt securities (or the guarantee, as applicable) and such indenture;

immediately after giving effect to such transaction, no event of default, and no event that, after notice or lapse of time or both, would become an event of default, shall have occurred and be continuing; and

Arch US or Arch Capital, as the case may be, shall have delivered to the applicable trustee an officers' certificate stating that such consolidation, merger, conveyance, transfer, sale or lease and, if a supplemental indenture is required in connection with such transaction, such supplemental indenture, comply with the applicable base indenture and that all conditions precedent therein provided for relating to such transaction have been satisfied.

The surviving person of such transaction shall succeed to, and be substituted for, and may exercise every right and power of, Arch US or Arch Capital, as the case may be, under the applicable indenture with the same effect as if such successor had been named as Arch US or Arch Capital, as the case may be, thereunder; and thereafter Arch US or Arch Capital, as the case may be, shall be discharged from

Table of Contents

all obligations and covenants under the applicable base indenture and the applicable debt securities or the guarantee, as the case may be.

Payment of Principal, Premium and Interest

Arch US will duly and punctually pay the principal of (and premium, if any) and interest on the debt securities in accordance with their terms.

Maintenance of Office or Agency

Arch US and Arch Capital will maintain an office or agency where debt securities may be presented or surrendered for registration of transfer or exchange and where notices and demands to or upon Arch US or Arch Capital in respect of the debt securities and the applicable indenture may be served.

Money for Securities; Payments to Be Held in Trust

If Arch US at any time acts as its own paying agent with respect to any debt securities, it will, on or before each due date of the principal of (and premium, if any) or interest on such debt securities, segregate and hold in trust for the benefit of the persons entitled thereto a sum sufficient to pay the principal (and premium, if any) or interest so becoming due until such sums are paid to such persons or otherwise disposed of as provided in the applicable indenture and will promptly notify the applicable trustee of its action or failure so to act.

Corporate Existence

Except as otherwise permitted under "Merger, Amalgamation, Consolidation or Sale of Assets" above, each of Arch US and Arch Capital will do or cause to be done all things necessary to preserve and keep in full force and effect its corporate existence and material rights (charter and statutory) and franchises; *provided*, *however*, that Arch US and Arch Capital will not be required to preserve any such right or franchise if their respective boards of directors or senior management determine that the preservation thereof is no longer desirable in the conduct of the business of Arch US or Arch Capital and that the loss thereof is not disadvantageous in any material respect to the holders of debt securities.

Statement by Officers as to Default

Arch US and Arch Capital will each deliver to the trustee, within 120 days after the end of each fiscal year of Arch US, a certificate of the principal executive officer, principal financial officer or principal accounting officer of each Arch US and Arch Capital stating whether or not to the best knowledge of the signers thereof Arch US or Arch Capital is in default in the performance and observance of any of the terms, provisions and conditions of the applicable indenture, and if Arch US or the Arch Capital is in default, specifying all such defaults and the nature and status thereof of which they may have knowledge.

Waiver of Certain Covenants

Arch US or Arch Capital, as the case may be, may omit in any particular instance to comply with any term, provision or condition set forth in the covenants described above under the captions " Corporate Existence" and " Statement by Officers as to Default" in respect of any series of debt securities if before or after the time for such compliance, the holders of at least a majority in principal amount of the outstanding debt securities of such series (taken together as one class) will, by act of such holders, either waive such compliance in such instance or generally waive compliance with such term, provision or condition, and except to the extent so expressly waived, and, until such waiver will

Table of Contents

become effective, the obligations of Arch US and Arch Capital and the duties of the applicable trustee in respect of any such term, provision or condition will remain in full force and effect.

Ranking of Debt Securities

General

Arch US currently conducts substantially all of its operations through its subsidiaries and its subsidiaries generate substantially all of its operating income and cash flow. As a result, distributions and advances from Arch US's subsidiaries will be the principal source of funds necessary to meet its debt service obligations. Contractual provisions or laws, as well as Arch US's subsidiaries' financial condition and operating and regulatory requirements, may limit Arch US's ability to obtain cash from its subsidiaries that it requires to pay its debt service obligations. In addition, because Arch US is a holding company, holders of the debt securities will be structurally subordinated to the claims of creditors of Arch US's subsidiaries on their assets and earnings.

Senior Debt Securities

The senior debt securities will be the unsecured unsubordinated obligations of Arch US and will:

rank equal in right of payment with all of Arch US's other unsecured and unsubordinated indebtedness;

be effectively subordinated in right of payment to all of Arch US's secured indebtedness to the extent of the value of the assets securing such indebtedness; and

be structurally subordinated to all of Arch US's subsidiaries' indebtedness and other obligations (including insurance obligations).

Except as otherwise specified in an authorizing resolution and/or supplemental indenture, if any, relating to a series of senior debt securities to be issued, the senior debt securities will not contain any limitation on the amount of indebtedness, secured or otherwise, which may be incurred by Arch US or any of Arch US's subsidiaries.

Subordinated Debt Securities

The subordinated debt securities will be the unsecured subordinated obligations of Arch US. Unless otherwise provided in the applicable prospectus supplement, the payment of principal of, interest on and all other amounts owing in respect of the subordinated debt securities will be subordinated in right of payment to the prior payment in full in cash of principal of, interest on and all other amounts owing in respect of all of Arch US's senior indebtedness (as defined below) and other obligations (including without limitation insurance obligations and Arch US's obligations with respect to its insurance policies and guarantees thereof). Upon any distribution of Arch US's assets of any kind or character, whether in cash, property or securities, to creditors upon any total or partial liquidation, dissolution, winding-up, reorganization, assignment for the benefit of creditors or marshaling of Arch US's assets or in a bankruptcy, insolvency, receivership or other similar proceeding relating to Arch US or its property, whether voluntary or involuntary, all principal of, interest on and all other amounts due or to become due on all senior indebtedness will be paid first in full in cash, or such payment duly provided for to the satisfaction of the holders of senior indebtedness, before the holders of the subordinated debt securities are entitled to receive or retain any payment.

If any default occurs and is continuing in the payment when due or all or any portion of the obligations under or in respect of any senior indebtedness, whether at maturity, on account of mandatory redemption or prepayment, acceleration or otherwise, no direct or indirect payment (whether pursuant to the terms of the subordinated debt securities or upon acceleration, by way of

Table of Contents

repurchase, redemption, defeasance or otherwise) by or on behalf of Arch US will be made of any principal of, interest on or other amounts owing in respect of the subordinated debt securities.

If any event of default other than a nonpayment event of default occurs and is continuing with respect to any senior indebtedness, as such event of default is defined in the instrument creating or evidencing such senior indebtedness, permitting the holders of such senior indebtedness then outstanding to accelerate the maturity thereof, and upon receipt by the trustee under the subordinated indenture of written notice (a "default notice") from a holder or holders of, or the trustee or agent acting on behalf of, such senior indebtedness, then, unless and until all such events of default have been cured or waived or have ceased to exist or such senior indebtedness has been discharged or repaid in full in cash, or the requisite holders of such senior indebtedness have otherwise agreed in writing, during the 179 days after the delivery of such default notice (the "blockage period"), neither Arch US nor any other person on its behalf (including Arch Capital under its guarantee of the subordinated debt securities) will make any payment of any kind or character with respect to any principal of, interest on or other distribution on account of or with respect to the subordinated debt securities.

Notwithstanding anything herein to the contrary, in no event will a blockage period extend beyond 179 days from the date the default notice in respect thereof was given and only one such blockage period may be commenced within any period of 360 consecutive days. No event of default which existed or was continuing on the date of the commencement of any blockage period with respect to the senior indebtedness will be, or be made, the basis for commencement of a second blockage period by the holder or holders of, or the trustee or agent acting on behalf of, such senior indebtedness whether or not within a period of 360 consecutive days unless such event of default will have been cured or waived for a period of not less than 90 consecutive days (it being acknowledged that any subsequent action or any breach of any financial covenants for a period commencing after the date of commencement of such blockage period that, in either case, would give rise to an event of default pursuant to any provisions under which an event of default previously existed or was continuing will constitute a new event of default for this purpose).

As a result of the foregoing provisions, in the event of Arch US's insolvency, holders of the subordinated debt securities may recover ratably less than Arch US's general creditors.

"Senior indebtedness," unless otherwise specified in an authorizing resolution and/or supplemental indenture, if any, relating to a series of subordinated debt securities to be issued by Arch US, means, with respect to Arch US:

- (1) the principal (including redemption payments), premium, if any, interest and other payment obligations in respect of (a) Arch US's indebtedness for money borrowed and (b) Arch US's indebtedness evidenced by securities, debentures, bonds, notes or other similar instruments issued by Arch US, including any such securities issued under any deed, indenture or other instrument to which Arch US is a party;
 - (2) all of Arch US's capital lease obligations;
- (3) all of Arch US's obligations issued or assumed as the deferred purchase price of property, all of Arch US's conditional sale obligations, all of Arch US's hedging agreements and agreements of a similar nature thereto and all agreements relating to any such agreements, and all of Arch US's obligations under any title retention agreement (but excluding trade accounts payable arising in the ordinary course of business);
- (4) all of Arch US's obligations for reimbursement on any letter of credit, banker's acceptance, security purchase facility or similar credit transaction;
- (5) all obligations of the type referred to in clauses (1) through (4) above of other persons for the payment of which Arch US is responsible or liable as obligor, guarantor or otherwise;

Table of Contents

- (6) all obligations of the type referred to in clauses (1) through (5) above of other persons secured by any lien on any of Arch US's property or assets (whether or not such obligation is assumed by Arch US); and
- (7) any deferrals, amendments, renewals, extensions, modifications and refundings of all obligations of the type referred to in clauses (1) through (6) above, in each case whether or not contingent and whether outstanding at the date of effectiveness of the subordinated indenture or thereafter incurred.

except, in each case, for the subordinated debt securities and any such other indebtedness or deferral, amendment, renewal, extension, modification or refunding that contains express terms, or is issued under a deed, indenture or other instrument, which contains express terms, providing that it is subordinate to, or ranks equal with, the subordinated debt securities.

Such senior indebtedness will continue to be senior indebtedness and be entitled to the benefits of the subordination provisions of the subordinated indenture irrespective of any amendment, modification or waiver of any term of such senior indebtedness and notwithstanding that no express written subordination agreement may have been entered into between the holders of such senior indebtedness and the trustee under the subordinated indenture or any of the holders of the subordinated debt securities.

Discharge and Defeasance

Under the terms of each indenture, Arch US will be discharged from any and all obligations in respect of the debt securities of any series issued under such indenture and such indenture and Arch Capital will be discharged from any and all obligations in respect of the guarantees of the debt securities (except in each case for certain obligations to register the transfer or exchange of debt securities, replace stolen, lost or mutilated debt securities, maintain paying agencies and hold moneys for payment in trust) if:

- (1) Arch US delivers all outstanding debt securities of such series to the applicable trustee for cancellation and pays all sums payable by Arch US under such debt securities and such indenture with respect to such series; or
- (2) such debt securities either have become due and payable or will become due and payable within one year (or are to be called for redemption within one year) and Arch US or Arch Capital deposits with the applicable trustee, in trust:
 - (a) in the case of any debt securities of any series denominated in U.S. dollars, cash or U.S. government obligations sufficient to pay all principal of and interest and premium, if any, on such debt securities; and
 - (b) in the case of any debt securities of any series denominated in any currency other than U.S. dollars, an amount of the applicable currency in which such debt securities are denominated sufficient to pay all principal of and interest and premium, if any, on such debt securities.

In addition, unless the prospectus supplement and supplemental indenture provide otherwise, Arch US and Arch Capital may elect either (1) to defease and be discharged from any and all obligations with respect to the debt securities of any series and the guarantee by Arch Capital ("defeasance") or (2) to be released from Arch US's and Arch Capital's obligations with respect to the debt securities of any series under certain covenants in the applicable indenture, and any omission to comply with such obligations will not constitute a default or an event of default with respect to such debt securities ("covenant defeasance"), in each case by giving notice to the applicable trustee of Arch US's intention

Table of Contents

to defease all of the debt securities of such series and irrevocably depositing with such trustee or a paying agent:

- (1) in the case of any debt securities of any series denominated in U.S. dollars, cash or U.S. government obligations sufficient to pay all principal of and interest and premium, if any, on such debt securities; and
- (2) in the case of any debt securities of any series denominated in any currency other than U.S. dollars, an amount of the applicable currency in which the debt securities are denominated sufficient to pay all principal of and interest and premium, if any, on such debt securities.

Such a trust may only be established if, among other things:

- (1) the applicable defeasance or covenant defeasance does not result in a breach or violation of, or constitute a default under, the applicable indenture or any agreement or instrument to which Arch US or Arch Capital, as the case may be, is a party or by which Arch US or Arch Capital is bound;
- (2) in the case of defeasance, no event of default or event which with notice or lapse of time or both would become an event of default with respect to the debt securities to be defeased will have occurred and be continuing on the date of establishment of such a trust; and
- (3) Arch US and Arch Capital have delivered to the applicable trustee an opinion of counsel or a letter ruling of the IRS (as specified in the applicable supplemental indenture) to the effect that the holders will not recognize income, gain or loss for United States federal income tax purposes as a result of such defeasance or covenant defeasance and will be subject to United States federal income tax on the same amount, in the same manner and at the same times as would have been the case if such defeasance or covenant defeasance had not occurred.

In the event Arch US or Arch Capital effects covenant defeasance with respect to any debt securities and such debt securities are declared due and payable because of the occurrence of any event of default, other than an event of default with respect to any covenant as to which there has been covenant defeasance, the government obligations on deposit with the applicable trustee will be sufficient to pay amounts due on such debt securities at the time of the stated maturity but may not be sufficient to pay amounts due on such debt securities at the time of the acceleration resulting from such event of default.

Modification and Waiver

Arch US and Arch Capital, when authorized by a board resolution, and the trustee may modify, amend and/or supplement each indenture and/or the terms of each series of debt securities and the related guarantees by Arch Capital with the consent of the holders of not less than a majority in principal amount of the outstanding debt securities of all series affected thereby (voting as a single class); *provided*, *however*, that, without the consent of each holder of the debt securities affected thereby, such amendment, modification or supplement may not (with respect to any debt securities held by a non-consenting holder):

- (1) change the stated maturity of the principal of, or any premium on, or any installment of interest with respect to such debt securities;
- (2) reduce the principal amount of, or the rate (or modify the calculation of such principal amount or rate) of interest on, such debt securities or any premium payable upon the redemption thereof or otherwise change the redemption provisions thereof;
 - (3) change the currency of payment of principal of or interest on such debt securities;

Table of Contents

- (4) impair the right to institute suit for the enforcement of any payment on or with respect to such debt securities;
- (5) reduce the above-stated percentage of holders of the debt securities of any series necessary to modify or amend the indenture governing such series;
- (6) in the case of the subordinated indenture, modify or make any change to the subordination provisions thereof that adversely affects the rights of the holders of subordinated debt securities of any series then outstanding;
- (7) in the case of any convertible debt securities, adversely affect the right of a holder to convert such debt securities other than as provided in or under the applicable indenture; or
- (8) release Arch Capital from any of its obligations under the applicable indenture or the related guarantees otherwise than in accordance with the terms of the applicable indenture; or
- (9) modify the foregoing requirements or reduce the percentage of outstanding debt securities necessary to waive any covenant or past default.

Holders of not less than a majority in principal amount of the outstanding debt securities of any series may waive any past default with respect to such series and its consequences, except a default:

- (1) in the payment of the principal of (or premium, if any) or interest on any debt security of such series; or
- (2) in respect of a covenant or provision of the applicable indenture that cannot be modified or amended without the consent of each holder affected.

Arch US and Arch Capital, when authorized by a board resolution, and the trustee may amend or supplement each indenture or waive any provision of such indenture and the debt securities issued thereunder without the consent of any holders of such debt securities in some circumstances, including:

to cure any ambiguity, omission, defect or inconsistency;

to make any other change that does not, in the good faith opinion of the respective boards of directors of Arch US and Arch Capital and the applicable trustee, adversely affect the interests of holders of such debt securities in any material respect;

to provide for the assumption of Arch US's or Arch Capital's obligations under such indenture by a successor upon any merger, consolidation or asset transfer permitted under such indenture;

to provide any security for, or additional guarantees of, such debt securities;

to add events of default with respect to such debt securities;

to add covenants of Arch US or Arch Capital that would benefit the holders of such debt securities or to surrender any rights or powers Arch US or Arch Capital has under such indenture;

to make any change necessary to comply with the Trust Indenture Act of 1939, or any amendment thereto, or to comply with any requirement of the SEC in connection with the qualification of such indenture under the Trust Indenture Act of 1939; provided, however, that such modification or amendment does not, in the good faith opinion of the respective boards of directors of each of Arch US and Arch Capital and the applicable trustee, adversely affect the interests of the holders of such debt securities in any material respect;

to provide for uncertificated debt securities and guarantees in addition to or in place of certificated debt securities and guarantees;

Table of Contents

to change or eliminate any of the provisions of such indenture, *provided*, *however*, that any such change or elimination will become effective only when there is no debt security outstanding of any series created prior to the execution of such supplemental indenture which is entitled to the benefit of such provision;

to establish the form or terms of debt securities of any series or the related guarantees as permitted by such indenture; or

to evidence and provide for the acceptance of appointment by a successor trustee with respect to the debt securities of one or more series and to add to or change any of the provisions of such indenture as will be necessary to provide for or facilitate the administration of the trusts under such indenture by more than one trustee, pursuant to the requirements of such indenture.

Events of Default and Notice Thereof

The following are events that Arch US anticipates will constitute "events of default" with respect to the debt securities of any series issued under the senior indenture or the subordinated indenture:

- (1) default in the payment of any interest upon any debt securities of such series when it becomes due and payable, and continuance of such default for a period of 30 days; or
 - (2) default in the payment of the principal of (or premium, if any, on) any debt securities of such series when due; or
 - (3) default in the deposit of any sinking fund payment, when and as due by the terms of any debt securities of such series; or
- (4) default in the performance, or breach, of any covenant of Arch US or Arch Capital (other than those set forth in clause (1), (2) or (3) above) in such indenture (other than a covenant or warranty added to such indenture solely for the benefit of another series of debt securities) and continuance of such default for a period of 60 days after there has been given, by registered or certified mail, to Arch US or Arch Capital by the trustee or to Arch US, Arch Capital and the applicable trustee by the holders of at least 25% in principal amount of the outstanding debt securities of such series, a written notice specifying such default or breach and requiring it to be remedied and stating that such notice is a "Notice of Default" under such indenture; or
 - (5) certain events of bankruptcy, insolvency or reorganization; or
- (6) the guarantee ceases to be in full force and effect or is declared to be null and void and unenforceable or is found to be invalid, in each case by a court of competent jurisdiction in a final non-appealable judgment, or Arch Capital denies its liability under the guarantee (other than by reason of release of Arch Capital in accordance with the terms of such indenture).

Additional or different events of default, if any, applicable to a series of debt securities in respect of which this prospectus is being delivered will be specified in the applicable prospectus supplement, and if necessary, a post-effective amendment to the registration statement of which this prospectus forms a part.

Within 90 days after the occurrence of any default (the term "default" to include the events specified above without grace or notice) with respect to any series of debt securities, unless such default shall have been cured or waived, the trustee under the applicable indenture will give to the holders of such debt securities notice of such default known to such trustee; *provided*, *however*, that, except in the case of a default in the payment of principal of (or premium, if any) or interest on any of the debt securities of such series or in the payment of a sinking fund installment, such trustee will be protected in withholding such notice if it in good faith determines that the withholding of such notice is in the

Table of Contents

interest of the holders of such debt securities; and *provided*, *further*, that in the case of any default of the character specified in clause (4) above with respect to debt securities of such series, no such notice to holders of such debt securities will be given until at least 30 days after the occurrence thereof. Arch US will certify to the trustee, within 120 days after the end of each fiscal year of Arch US, as to whether any default exists, as described under "Statement by Officers as to Default" above.

If an event of default, other than an event of default resulting from bankruptcy, insolvency or reorganization, with respect to any series of debt securities occurs and is continuing, the trustee under the applicable indenture or the holders of at least 25% in aggregate principal amount of the debt securities of such series then outstanding, by notice in writing to Arch US (and to such trustee if given by the holders of the debt securities of such series), will be entitled to declare all unpaid principal of and accrued interest on such debt securities then outstanding to be due and payable immediately.

In the case of an event of default resulting from certain events of bankruptcy, insolvency or reorganization, all unpaid principal of and accrued interest on all debt securities of such series then outstanding will be due and payable immediately without any declaration or other act on the part of the trustee under the applicable indenture or the holders of any debt securities of such series.

Such acceleration may be annulled and past defaults (except, unless theretofore cured, a default in payment of principal of or interest on the debt securities of such series) may be waived by the holders of a majority in principal amount of the debt securities of such series then outstanding upon the conditions provided in the applicable indenture.

No holder of the debt securities of any series may pursue any remedy under the applicable indenture unless the trustee under such indenture will have failed to act after, among other things, notice of an event of default and request by holders of at least 25% in principal amount of the debt securities of such series in respect of which the event of default has occurred and the offer to such trustee of indemnity satisfactory to it; provided, however, that such provision does not affect the right to sue for enforcement of any overdue payment on such debt securities.

Conversion and Exchange Rights

The terms and conditions, if any, upon which the debt securities of any series will be convertible into Arch Capital's common shares, Arch Capital's preference shares or Arch US's preferred stock or upon which the debt securities of any series will be exchangeable into another series of debt securities will be set forth in the prospectus supplement relating thereto. Such terms will include the conversion or exchange price (or manner of calculation thereof), the conversion or exchange period, provisions as to whether conversion or exchange will be at the option of the holders of such series of debt securities or at Arch US's option or automatic, the events requiring an adjustment of the conversion or exchange price and provisions affecting conversion or exchange in the event of the redemption of such series of debt securities.

The Trustee

The trustee under the indenture pursuant to which a series of debt securities is issued will be named in the prospectus supplement relating to such debt securities. Each indenture will contain certain limitations on a right of the trustee thereunder, as Arch US's creditor, to obtain payment of claims in certain cases, or to realize on certain property received in respect of any such claim as security or otherwise. The trustee under each indenture will be permitted to engage in other transactions; *provided*, *however*, that if it acquires any conflicting interest, it must eliminate such conflict or resign.

Subject to the terms of the applicable indenture, the holders of a majority in principal amount of all outstanding debt securities of a series (or if more than one series is affected thereby, of all series so

Table of Contents

affected, voting as a single class) issued under such indenture will have the right to direct the time, method and place of conducting any proceeding for exercising any remedy or power available to the trustee under such indenture.

In case an event of default will occur (and will not be cured) with respect to a series of debt securities and is actually known to a responsible officer of the trustee under the applicable indenture, such trustee will exercise such of the rights and powers vested in it by such indenture and use the same degree of care and skill in its exercise as a prudent person would exercise or use under the circumstances in the conduct of his own affairs. Subject to such provisions, such trustee will not be under any obligation to exercise any of its rights or powers under the applicable indenture at the request of any of the holders of debt securities unless they will have offered to such trustee security and indemnity satisfactory to it.

Governing Law

The indentures and the debt securities will be governed by the laws of the State of New York.

Global Securities; Book-Entry System

Arch US may issue the debt securities of any series and the related guarantees in whole or in part in the form of one or more global securities to be deposited with, or on behalf of, a depositary identified in the prospectus supplement relating to such series. "Global securities" represent in the aggregate the total principal or face amount of the securities and, once on deposit with a depositary, allow trading of the securities through the depositary's book-entry system (as further described below). Global securities, if any, issued in the United States are expected to be deposited with DTC (or a nominee thereof), as depositary. Global securities will be issued in fully registered form and may be issued in either temporary or permanent form. Unless and until it is exchanged in whole or in part for the individual debt securities represented thereby, a global security may not be transferred except as a whole by the depositary for such global security to a nominee of such depositary or any nominee of such depositary or any nominee of such depositary to a successor depositary or any nominee of such successor.

The specific terms of the depositary arrangement with respect to any series of debt securities will be described in the prospectus supplement relating to such series. Arch US expects that unless otherwise indicated in the applicable prospectus supplement, the following provisions will apply to depositary arrangements.

Upon the issuance of a global security, the depositary for such global security or its nominee will credit on its book-entry registration and transfer system the respective principal amounts of the individual debt securities represented by such global security to the accounts of participants. Such accounts will be designated by the underwriters, dealers or agents with respect to such debt securities or by Arch US if such debt securities are offered directly by Arch US. Ownership of beneficial interests in such global security will be limited to participants or persons that may hold interests through participants.

Arch US expects that, pursuant to procedures established by DTC, ownership of beneficial interests in any global security with respect to which DTC is the depositary will be shown on, and the transfer of that ownership will be effected only through, records maintained by DTC or its nominee (with respect to beneficial interests of participants) and records of participants (with respect to beneficial interests of persons who hold through participants). None of Arch US, Arch Capital or the applicable trustee will have any responsibility or liability for any aspect of the records of DTC or for maintaining, supervising or reviewing any records of DTC or any of its participants relating to beneficial ownership interests in the debt securities. The laws of some states require that certain

Table of Contents

purchasers of securities take physical delivery of such securities in definitive form. Such limits and laws may impair the ability to own, pledge or transfer beneficial interest in a global security.

So long as the depositary for a global security or its nominee is the registered owner of such global security, such depositary or such nominee, as the case may be, will be considered the sole owner or holder of the debt securities represented by such global security for all purposes under the applicable indenture. Except as described below or in the applicable prospectus supplement, owners of beneficial interests in a global security will not be entitled to have any of the individual debt securities represented by such global security registered in their names, will not receive or be entitled to receive physical delivery of any such debt securities in definitive form and will not be considered the owners or holders thereof under the applicable indenture. Beneficial owners of debt securities evidenced by a global security will not be considered the owners or holders thereof under the applicable indenture for any purpose, including with respect to the giving of any direction, instructions or approvals to the trustee thereunder. Accordingly, each person owning a beneficial interest in a global security with respect to which DTC is the depositary must rely on the procedures of DTC and, if such person is not a participant, on the procedures of the participant through which such person owns its interests, to exercise any rights of a holder under the applicable indenture. Arch US understands that, under existing industry practice, if Arch US requests any action of holders or if an owner of a beneficial interest in a global security desires to give or take any action which a holder is entitled to give or take under the applicable indenture, DTC would authorize the participants holding the relevant beneficial interest to give or take such action, and such participants would authorize beneficial owners through such participants to give or take such actions or would otherwise act upon the instructions of beneficial owners holding through them.

Payments of principal of, and any interest on, individual debt securities represented by a global security registered in the name of a depositary or its nominee will be made to or at the direction of the depositary or its nominee, as the case may be, as the registered owner of the global security under the applicable indenture. Under the terms of each indenture, Arch US and the trustee under such indenture may treat the persons in whose name debt securities, including a global security, are registered as the owners thereof for the purpose of receiving such payments. Consequently, neither Arch US nor such trustee has or will have any responsibility or liability for the payment of such amounts to beneficial owners of debt securities (including principal and interest). Arch US believes, however, that it is currently the policy of DTC to immediately credit the accounts of relevant participants with such payments, in amounts proportionate to their respective holdings of beneficial interests in the relevant global security as shown on the records of DTC or its nominee. Arch US also expects that payments by participants to owners of beneficial interests in such global security held through such participants will be governed by standing instructions and customary practices, as is the case with securities held for the account of customers registered in street name, and will be the responsibility of such participants. Redemption notices with respect to any debt securities represented by a global security will be sent to the depositary or its nominee. If less than all of the debt securities of any series are to be redeemed, Arch US expects the depositary to determine the amount of the interest of each participant in such debt securities to be redeemed to be determined by lot. None of Arch US, Arch Capital or the trustee under the applicable indenture, any paying agent or the registrar for such debt securities will have any responsibility or liability for any aspect of the records relating to or payments made on account of beneficial ownership interests in the global security for such debt securities or for maintaining any records with respect thereto.

None of Arch US, Arch Capital or the trustee under the applicable indenture will be liable for any delay by the holders of a global security or the depositary in identifying the beneficial owners of debt securities and Arch US and such trustee may conclusively rely on, and will be protected in relying on, instructions from the holder of a global security or the depositary for all purposes. The rules applicable to DTC and its participants are on file with the SEC.

Table of Contents

If a depositary for any debt securities is at any time unwilling, unable or ineligible to continue as depositary and a successor depositary is not appointed by Arch US within 90 days, Arch US will issue individual debt securities in exchange for the global security representing such debt securities.

All moneys paid by Arch US or Arch Capital to a paying agent or a trustee for the payment of the principal of or interest on any debt security which remain unclaimed at the end of two years after such payment has become due and payable will be repaid to Arch US or Arch Capital, as the case may be, and the holder of such debt security thereafter may look only to Arch US for payment thereof.

Non-U.S. Currency

If the purchase price of any Arch US debt securities is payable in a currency other than U.S. dollars, the specific terms with respect to such Arch US debt securities and such foreign currency will be specified in the applicable prospectus supplement.

SELLING SHAREHOLDERS

To the extent that this prospectus is used by any selling shareholder to resell any Arch Capital common shares, information with respect to the selling shareholder will be contained in a supplement to this prospectus.

PLAN OF DISTRIBUTION

We may sell the securities:
through underwriters or dealers;
through agents;
directly to purchasers; or
through a combination of any such methods of sale.
A

Any underwriter, dealer or agent may be deemed to be an underwriter within the meaning of the Securities Act of 1933, as amended (the "Securities Act"). The prospectus supplement relating to any offering of securities by us will set forth its offering terms, including the name or names of any underwriters, the purchase price of the securities and the proceeds to us from such sale, any underwriting discounts, commissions and other items constituting underwriters' compensation, any initial public offering price, and any underwriting discounts, commissions and other items allowed or reallowed or paid to dealers, and any securities exchanges on which the securities may be listed. Only underwriters so named in the prospectus supplement are deemed to be underwriters in connection with the securities offered by us within this prospectus.

If underwriters are used in the sale, they will acquire the securities for their own account and may resell them from time to time in one or more transactions, at a fixed price or prices, which may be changed, or at market prices prevailing at the time of sale, or at prices related to such prevailing market prices, or at negotiated prices. The securities may be offered to the public either through underwriting syndicates represented by one or more managing underwriters or directly by one or more of such firms. Unless otherwise set forth in the prospectus supplement, the obligations of the underwriters to purchase the securities will be subject to certain conditions precedent and the underwriters will be obligated to purchase all the offered securities if any are purchased. Any initial public offering price and any discounts or concessions allowed or real-lowed or paid to dealers may be changed from time to time.

Any agent involved in the offer or sale of the securities in respect of which this prospectus is delivered will be named, and any commissions payable by us to the agent will be set forth, in the

Table of Contents

accompanying prospectus supplement. Unless otherwise indicated in the prospectus supplement, any such agent will be acting on a best efforts basis for the period of its appointment.

If so indicated in the prospectus supplement, we will authorize underwriters, dealers or agents to solicit offers by certain specified institutions to purchase securities from us at the public offering price set forth in the accompanying prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. These contracts will be subject to any conditions set forth in the accompanying prospectus supplement and the prospectus supplement will set forth the commission payable for solicitation of these con-tracts. The underwriters and other persons soliciting these contracts will have no responsibility for the validity or performance of any such contracts.

Any underwriters to whom or agents through whom these securities are sold by us for public offering and sale may make a market in these securities, but such underwriters or agents will not be obligated to do so and may discontinue any market making at any time without notice. No assurance can be given as to the liquidity of or the trading market for any such securities.

Underwriters, dealers and agents may be entitled, under agreements entered into with us, to indemnification by us against certain civil liabilities, including liabilities under the Securities Act or to contribution by us to payments they may be required to make in respect thereof.

Certain of the underwriters, agents or dealers and their associates may engage in transactions with and perform services for us in the ordinary course of business.

Arch Capital's common shares are quoted on Nasdaq Global Select Market under the symbol "ACGL." The Series A Non-Cumulative Preferred Shares are listed on the New York Stock Exchange under the symbol "ARHPrA" The Series B Non-Cumulative Preferred Shares are listed on the New York Stock Exchange under the symbol "ARHPrB." The other securities are not listed on any securities exchange or other stock market and, unless we state otherwise in the applicable prospectus supplement, we do not intend to apply for listing of the other securities on any securities exchange or other stock market. Any underwriters to whom we sell securities for public offering and sale may make a market in the securities that they purchase, but the underwriters will not be obligated to do so and may discontinue any market making at any time without notice. Accordingly, we give you no assurance as to the development or liquidity of any trading market for the securities.

WHERE YOU CAN FIND MORE INFORMATION

Arch Capital

Arch Capital is subject to the informational requirements of the Securities Exchange Act of 1934 (the "Exchange Act"), and in accordance therewith files reports, proxy statements and other information with the SEC. These reports, proxy statements and other information contain additional information about Arch Capital. You can inspect and copy these materials at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. You can obtain information about the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC maintains an Internet website that contains reports, proxy and information statements and other information regarding companies that file electronically with the SEC. The SEC's Internet address is http://www.sec.gov. You can also inspect these materials at the offices of the Nasdaq Stock Market, 1735 K Street, N.W., Washington, D.C. 20006.

Arch Capital Group (U.S.) Inc.

Arch Capital Group (U.S.) Inc. is not currently subject to the information reporting requirements of the Exchange Act. Arch Capital Group (U.S.) Inc. is a wholly-owned subsidiary of Arch Capital. Any future issuances of preferred stock or debt securities of Arch Capital Group (U.S.) Inc. will be fully

Table of Contents

and unconditionally guaranteed by Arch Capital and by no other subsidiary of Arch Capital. See "Description of Arch Capital Group (U.S.) Inc. Preferred Stock" and "Description of Arch Capital Group (U.S.) Inc. Debt Securities."

INCORPORATION OF DOCUMENTS BY REFERENCE

The SEC allows Arch Capital to "incorporate by reference" information into this prospectus, which means that it can disclose important information by referring you to another document filed separately with the SEC. This prospectus incorporates by reference the documents listed below which have been filed by Arch Capital with the SEC and any future filings with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act.

Annual report on Form 10-K for the year ended December 31, 2011.

Current report on Form 8-K filed on March 2, 2012.

The description of the common shares contained in our registration statement on Form 8-A filed on August 23, 2002 pursuant to Section 12 of the Exchange Act, including any amendment or report filed for the purpose of updating such description.

The description of our outstanding 8.00% Non-Cumulative Preferred Shares, Series A, par value US \$0.01 per share, contained in our registration statement on Form 8-A filed on April 17, 2006 pursuant to Section 12 of the Exchange Act, including any amendment or report filed for the purpose of updating such description.

The description of our outstanding 7.875% Non-Cumulative Preferred Shares, Series B, par value US \$0.01 per share, contained in our registration statement on Form 8-A filed on May 26, 2006 pursuant to Section 12 of the Exchange Act, including any amendment or report filed for the purpose of updating such description.

Arch Capital is also incorporating by reference the information contained in all other documents that it files with the SEC between the date of the initial filing of the registration statement of which this prospectus is a part and the effectiveness of the registration statement, as well as between the date of this prospectus and the time that all of the securities registered under the registration statement are sold. The information contained in any of these documents will be considered part of this prospectus from the date these documents are filed.

If you would like to receive a copy of any document incorporated by reference into this prospectus (which will not include any of the exhibits to the document other than those exhibits that are themselves specifically incorporated by reference into this prospectus) or Arch Capital's and Arch US's constitutional documents, you should call or write to Arch Capital Group Ltd., Wessex House, 45 Reid Street, Hamilton HM 12 Bermuda, Attention: Secretary (telephone (441) 278-9250). Arch Capital will provide these documents, without charge, by first class mail.

None of Arch Capital or Arch US have authorized anyone to give any information or make any representation about Arch Capital or Arch US that is different from, or in addition to, that contained in this prospectus or in any of the materials that Arch Capital or Arch US have incorporated by reference into this prospectus. Therefore, if anyone does give you information of this sort, you should not rely on it. If you are in a jurisdiction where offers to exchange or sell, or solicitations of offers to exchange or purchase, the securities offered by this document or the solicitation of proxies is unlawful, or if you are a person to whom it is unlawful to direct these types of activities, then the offer presented in this prospectus does not extend to you. The information contained in this prospectus speaks only as of the date of this document, unless the information specifically indicates that another date applies.

Table of Contents

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

The Private Securities Litigation Reform Act of 1995 ("PLSRA") provides a "safe harbor" for forward-looking statements. This prospectus 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 prospectus are forward-looking statements. Forward-looking statements, for purposes of the PLSRA or otherwise, can generally be identified by the use of forward-looking terminology such as "may," "will," "expect," "intend," "estimate," "anticipate," "believe" or "continue" and similar statements of a future or forward-looking nature or their negative or variations or similar terminology.

Forward-looking statements involve our current assessment of risks and uncertainties. Actual events and results may differ materially from those expressed or implied in these statements. Important factors that could cause actual events or results to differ materially from those indicated in such statements are discussed below, elsewhere in this prospectus and in our periodic reports filed with the 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 "Risk Factors" above and under Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations" and other sections of our Annual Report on Form 10-K for the year ended December 31, 2011, 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

LEGAL MATTERS

Certain legal matters with respect to the securities will be passed upon for us and Arch US by Cahill Gordon & Reindel LLP, New York, New York. Certain legal matters with respect to the securities under the laws of Bermuda will be passed upon for us by Conyers Dill & Pearman Limited, Hamilton, Bermuda.

EXPERTS

The financial statements and management's assessment of the effectiveness of internal control over financial reporting (which is included in Management's Report on Internal Control over Financial Reporting) incorporated in this prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2011 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

ENFORCEMENT OF CIVIL LIABILITIES UNDER UNITED STATES FEDERAL SECURITIES LAWS

We are a Bermuda company. In addition, certain of our directors and officers, as well as certain of the experts named in this prospectus, reside outside the United States, and all or a substantial portion of our assets and their assets are located outside the United States. Therefore, it may be difficult for investors to effect service of process within the United States upon those persons or to recover against us or those persons on judgments of courts in the United States, including judgments based on civil liabilities provisions of the United States federal securities laws. However, investors may serve Arch Capital with process in the United States with respect to actions against us arising out of or in connection with violations of United States federal securities law relating to offers and sales of securities covered by this prospectus by serving National Registered Agents, Inc., 440 9th Avenue, 5th floor, New York, New York 10001, its United States agent irrevocably appointed for that purpose.

We have been advised by Conyers Dill & Pearman Limited, our Bermuda counsel, that the United States and Bermuda do not currently have a treaty providing for reciprocal recognition and enforcement of judgments in civil and commercial matters. We also have been advised by Conyers Dill & Pearman Limited that there is doubt as to whether the courts of Bermuda would enforce (1) judgments of United States courts based on the civil liability provisions of the United States federal securities laws obtained in actions against us or our directors and officers, and (2) original actions brought in Bermuda against us or our officers and directors based solely upon the United States federal securities laws. A Bermuda court may, however, impose civil liability on us or our directors or officers in a suit brought in the Supreme Court of Bermuda; provided that the facts alleged constitute or give rise to a cause of action under Bermuda law. Certain remedies available under the laws of U.S. jurisdictions, including certain remedies under the U.S. federal securities laws, would not be allowed in Bermuda courts to the extent that they are contrary to public policy.