Filed Pursuant to Rule 433 Registration Statement No. 333-170374 Issuer Free Writing Prospectus dated March 2, 2011 Relating to Prospectus, dated November 4, 2010, and Prospectus Supplement, dated November 8, 2010

AMERICAN CAPITAL AGENCY CORP. FREE WRITING PROSPECTUS

This free writing prospectus is being filed pursuant to Rule 433 under the Securities Act of 1933 (the "Securities Act") with respect to Registration Statement No. 333-170374 (the "Registration Statement") filed by American Capital Agency Corp., a Delaware corporation (the "Company") with the Securities and Exchange Commission (the "SEC") on November 4, 2010, and the prospectus supplement, dated November 8, 2010 (the "Prospectus Supplement"), to the prospectus, dated November 4, 2010 (the "Base Prospectus"), included therein (the Prospectus Supplement together with the Base Prospectus, the "Prospectus"). To review the Prospectus, please click on the following link to the SEC's web site:

http://www.sec.gov/Archives/edgar/data/1423689/000119312510252670/d424b2.htm.

The Company has filed the Registration Statement with the SEC for the offering to which this communication relates. Before you invest, you should read the Prospectus in the Registration Statement and other documents that the Company has filed with the SEC for more complete information about the Company and this offering. You may get these documents for free by visiting EDGAR on the SEC web site at www.sec.gov. Alternatively, the Company, any underwriter or any dealer participating in the offering will arrange to send you the Prospectus if you request it by calling 212-829-4846.

This free writing prospectus reflects the following updates to the Base Prospectus and supersedes the information set forth therein. All references to page numbers are to the page numbers in the Base Prospectus.

FEDERAL INCOME TAX CONSIDERATIONS

The third paragraph under the heading "Taxation of REITs in General" on page 13 has been revised to update the tax years referenced therein from 2010 to 2012, pursuant to the Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010. The updated paragraph (as amended) is set forth below:

Taxation of REITs in General

For tax years through 2012, most domestic stockholders that are individuals, trusts or estates are taxed on corporate dividends at a maximum rate of 15% (the same as long-term capital gains). With limited exceptions, however, dividends from us or from other entities that are taxed as REITs are generally not eligible for this rate and will continue to be taxed at rates applicable to ordinary income, which will be as high as 35% through 2012. See "—Taxation of Stockholders—Taxation of Taxable Domestic Stockholders—Distributions."

The second paragraph under the heading "Failure to Qualify" and the first, second, and fifth paragraphs under the heading "Taxation of Taxable Domestic Stockholders" on pages 23 and 24 have been similarly updated. The updated paragraphs (as amended) are set forth below:

Failure to Qualify

If we fail to qualify for taxation as a REIT in any taxable year, and the relief provisions described above do not apply, we would be subject to tax, including any applicable alternative minimum tax, on our taxable income at regular corporate rates. We cannot deduct distributions to stockholders in any year in which we are not a REIT, nor would we be required to make distributions in such a year. In this situation, to the extent of current and accumulated earnings and profits, distributions to most domestic stockholders that are individuals, trusts and estates will generally be taxable at capital gains rates (through 2012). In addition, subject to the limitations of the Internal Revenue Code,

corporate distributees may be eligible for the dividends received deduction. Unless we are entitled to relief under specific statutory provisions, we would also be disqualified from re-electing to be taxed as a REIT for the four taxable years following the year during which we lost qualification. It is not possible to state whether, in all circumstances, we would be entitled to this statutory relief.

Taxation of Taxable Domestic Stockholders

Distributions. So long as we qualify as a REIT, the distributions that we make to our taxable domestic stockholders out of current or accumulated earnings and profits that we do not designate as capital gain dividends will generally be taken into account by stockholders as ordinary income and will not be eligible for the dividends received deduction for corporations. With limited exceptions, our dividends are not eligible for taxation at the preferential income tax rates (i.e., the 15% maximum federal rate through 2012) for qualified dividends received by most domestic stockholders that are individuals, trusts and estates from taxable C corporations. Such stockholders, however, are taxed at the preferential rates on dividends designated by and received from REITs to the extent that the dividends are attributable to:

- · income retained by the REIT in the prior taxable year on which the REIT was subject to corporate level income tax (less the amount of tax);
- · dividends received by the REIT from TRSs or other taxable C corporations; or
- income in the prior taxable year from the sales of "built-in gain" property acquired by the REIT from C corporations in carryover basis transactions (less the amount of corporate tax on such income).

Distributions that we designate as capital gain dividends will generally be taxed to our stockholders as long-term capital gains, to the extent that such distributions do not exceed our actual net capital gain for the taxable year, without regard to the period for which the stockholder that receives such distribution has held its stock. We may elect to retain and pay taxes on some or all of our net long-term capital gains, in which case provisions of the Internal Revenue Code will treat our stockholders as having received, solely for tax purposes, our undistributed capital gains, and the stockholders will receive a corresponding credit for taxes that we paid on such undistributed capital gains. See "Taxation of American Capital Agency Corp.—Annual Distribution Requirements." Corporate stockholders may be required to treat up to 20% of some capital gain dividends as ordinary income. Long-term capital gains are generally taxable at maximum federal rates of 15% (through 2012) in the case of stockholders that are individuals, trusts and estates, and 35% in the case of stockholders that are corporations. Capital gains attributable to the sale of depreciable real property held for more than 12 months are subject to a 25% maximum federal income tax rate for taxpayers who are taxed as individuals, to the extent of previously claimed depreciation deductions.

Dispositions of American Capital Agency Corp. Stock. In general, capital gains recognized by individuals, trusts and estates upon the sale or disposition of our stock will be subject to a maximum federal income tax rate of 15% (through 2012) if the stock is held for more than one year, and will be taxed at ordinary income rates (of up to 35% through 2012) if the stock is held for one year or less. Gains recognized by stockholders that are corporations are subject to federal income tax at a maximum rate of 35%, whether or not such gains are classified as long-term capital gains. Capital losses recognized by a stockholder upon the disposition of our stock that was held for more than one year at the time of disposition will be considered long-term capital losses, and are generally available only to offset capital gain income of the stockholder but not ordinary income (except in the case of individuals, who may offset up to \$3,000 of ordinary income each year). In addition, any loss upon a sale or exchange of shares of our stock by a stockholder who has held the shares for six months or less, after applying holding period rules, will be treated as a long-term capital loss to the extent of distributions that we make that are required to be treated by the stockholder as long-term capital gain.

The first paragraph under the heading "Legislative or Other Actions Affecting REITs" on page 28 has been updated to delete the reference to proposals being considered by Congress. The updated paragraph (as amended) is set forth below:

Legislative or Other Actions Affecting REITs

The present federal income tax treatment of REITs may be modified, possibly with retroactive effect, by legislative, judicial or administrative action at any time. The REIT rules are constantly under review by persons involved in the legislative process and by the IRS and the U.S. Treasury Department which may result in statutory changes as well as revisions to regulations and interpretations. No assurance can be given as to whether, or in what form, the proposals described above (or any other proposals affecting REITs or their stockholders) will be enacted. Changes to the federal tax laws and interpretations thereof could adversely affect an investment in our common stock.