UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 OR 15(d) of The Securities Exchange Act of 1934

Date of Report (Date of earliest event reported) May 4, 2010

Fifth Street Finance Corp.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation) **1-33901** (Commission File Number) **26-1219283** (IRS Employer Identification No.)

10 Bank Street, Suite 1210, White Plains, NY (Address of principal executive offices)

10606 (Zip Code)

Registrant's telephone number, including area code: (914) 286-6800

Not Applicable (Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

[] Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

[] Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

[] Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

[] Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 7.01. Regulation FD Disclosure.

On May 4, 2010 the Registrant issued a press release, a copy of which is attached hereto as Exhibit 99.1 and is incorporated herein by reference.

Item 9.01. Financial Statements and Exhibits.

Exhibit 99.1. Press release dated May 4, 2010

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the Registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Fifth Street Finance Corp.

(Registrant)

May 4, 2010

/s/ BERNARD D. BERMAN

(Date)

Bernard D. Berman President

Exhibit Index

99.1 Press release dated May 4, 2010

Fifth Street Finance Corp. Increases Its 2010 Third Quarter Dividend to \$0.32 Per Share

WHITE PLAINS, N.Y., May 4, 2010 (GLOBE NEWSWIRE) -- Fifth Street Finance Corp. (NYSE:FSC) ("Fifth Street") today announced that its Board of Directors declared a cash dividend of \$0.32 per share for the third fiscal quarter of 2010, an increase of 6.7% from the previous fiscal quarter and its third consecutive increase in the quarterly dividend.

Third Quarter 2010 Record Date: May 20, 2010

Third Quarter 2010 Payment Date: June 30, 2010

"Due to the increasing origination environment, we are pleased to provide our shareholders with a third consecutive quarterly dividend increase," stated Fifth Street Finance Corp.'s Chief Executive Officer, Leonard M. Tannenbaum.

Dividends are paid from taxable income. Fifth Street's Board of Directors determines quarterly dividends based on estimates of taxable income, which differ from book income due to changes in unrealized appreciation and depreciation of investments and due to temporary and permanent differences in income and expense recognition.

Fifth Street has adopted a dividend reinvestment plan ("DRIP") that provides for reinvestment of its dividends on behalf of its shareholders, unless a shareholder elects to receive cash. As a result, if Fifth Street declares a cash dividend, its shareholders who have not "opted out" of Fifth Street's DRIP will have their cash dividends automatically reinvested in additional shares of Fifth Street common stock, rather than receiving the cash dividends. If your shares of Fifth Street common stock are held through a brokerage firm or other financial intermediary and you wish to participate in the DRIP, please contact your broker or other financial intermediary.

About Fifth Street Finance Corp.

Fifth Street Finance Corp. is a specialty finance company that lends to and invests in small and mid-sized companies in connection with investments by private equity sponsors. Fifth Street Finance Corp.'s investment objective is to maximize its portfolio's total return by generating current income from its debt investments and capital appreciation from its equity investments.

The Fifth Street Finance Corp. logo is available at http://www.globenewswire.com/newsroom/prs/?pkgid=5525

Forward-Looking Statements

This press release may contain certain forward-looking statements, including statements with regard to the future performance of Fifth Street Finance Corp. Words such as "believes," "expects," "projects," "anticipates," and "future" or similar expressions are intended to identify forward-looking statements. These forward-looking statements are subject to the inherent uncertainties in predicting future results and conditions. Certain factors could cause actual results to differ materially from those projected in these forward-looking statements, and these factors are identified from time to time in our filings with the Securities and Exchange Commission. Fifth Street Finance Corp. undertakes no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

CONTACT: Fifth Street Finance Corp. Stacey Thorne, Executive Director, Investor Relations (914) 286-6811 stacey@fifthstreetcap.com