As filed with the Securities and Exchange Commission on November 25, 2011

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-A

For Registration of Certain Classes of Securities Pursuant to Section 12(b) or 12(g) of the Securities Exchange Act of 1934

Fifth Street Finance Corp.

(Exact name of registrant as specified in its charter)

Delaware

(State of incorporation or organization) 10 Bank Street, 12th Floor, White Plains, NY 26-1219283 (I.R.S. Employer Identification No.)

> 10606 (Zip Code)

(Address of principal executive offices)

If this Form relates to the registration of a class of securities pursuant to Section 12(b) of the Exchange Act and is effective pursuant to General Instruction A.(c), check the following box.

If this Form relates to the registration of a class of securities pursuant to Section 12(g) of the Exchange Act and is effective pursuant to General Instruction A.(d), check the following box.

Securities Act registration statement file number to which this form relates: Not applicable

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

Title of each class to be so registered Common Stock, par value \$0.01 per share

Securities to be registered pursuant to Section 12(g) of the Act:

Name of each exchange on which each class is to be registered The NASDAQ Stock Market LLC

None (Title of class)

INFORMATION REQUIRED IN REGISTRATION STATEMENT

This registration statement is filed with the Securities and Exchange Commission in connection with Fifth Street Finance Corp.'s transfer of its listing of common stock to the NASDAQ Stock Market.

Item 1. Description of the Registrant's Securities to be Registered

The securities to be registered hereby are shares of common stock, par value \$0.01 per share, of Fifth Street Finance Corp. (the "Company"). The description of the shares of common stock contained in the section entitled "Description of Our Capital Stock" in the Prospectus included in the Company's Post-Effective Amendment No. 5 to its Registration Statement on Form N-2 (File No. 333-166012), filed with the Securities and Exchange Commission on March 30, 2011, (as amended from time to time, the "Registration Statement"), is hereby incorporated by reference herein. Any form of prospectus or prospectus supplement to the Registration Statement that includes such descriptions and that are subsequently filed are hereby also incorporated by reference herein.

Item 2. <u>Exhibits</u>

Not applicable

SIGNATURE

Pursuant to the requirements of Section 12 of the Securities Exchange Act of 1934, as amended, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereto duly authorized.

Date: November 25, 2011

FIFTH STREET FINANCE CORP.

By:

/s/ Alexander C. Frank

Name:Alexander C. FrankTitle:Chief Financial Officer