[Letterhead of Sutherland Asbill & Brennan LLP]

May 19, 2010

VIA EDGAR

Mr. Kevin Rupert Division of Investment Management U.S. Securities and Exchange Commission 100 F Street, N.E. Washington, D.C. 20549

Re: Fifth Street Finance Corp.

Registration Statement on Form N-2 filed on April 12, 2010 (File

No. 333-166012) (the "Registration Statement")

Dear Mr. Rupert:

On behalf of Fifth Street Finance Corp. (the "Company"), set forth below is the Company's response to an oral accounting comment issued by the staff of the Division of Investment Management (the "Staff") of the Securities and Exchange Commission (the "SEC") to the Company on May 14, 2010 regarding the Registration Statement. The Staff's comment is set forth below and is followed by the Company's response.

Comment:

We refer to the "Fees and Expenses" table set forth on page 8 of the Registration Statement. Please provide us with a detailed explanation of the reasons for the change in the ratio of total annual expenses to net assets contained therein (i.e., the 5.84%) from that disclosed in the notes to the financial statements or the "Fees and Expenses" table, as applicable, contained in the Company's Form 10-K for the year ended September 30, 2009 (the "Form 10-K"), final prospectus supplement dated January 22, 2010 that the Company filed with the SEC pursuant to Rule 497 under the Securities Act of 1933 (the "Final Prospectus") and Form 10-Q for the quarter ended March 31, 2010 (the "Form 10-Q"). With respect to the Form 10-K and the Form 10-Q, please provide the explanation of the reasons for such change from the line item entitled "ratio of total expenses to average stockholders' equity" in the "Financial Highlights" note to the financial statements contained therein.

Response:

In the Form 10-K, the Company disclosed that its ratio of total expenses to average stockholders' equity (or average net assets) was 6.34% at September 30, 2009. This ratio was calculated based on an average stockholders' equity of \$291,401,218 for the year

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ended September 30, 2009 and total expenses of \$18,466,121 that the Company had incurred during the year ended September 30, 2009. As disclosed in the Form 10-K, average stockholders' equity is calculated based upon the daily weighted average stockholders' equity for the year ended September 30, 2009. In this regard, it is important to note that the stockholders' equity of the Company was \$410,556,071 at September 30, 2009 and the ratio of total expenses to stockholders' equity (as opposed to **average** stockholders' equity) was 4.50% at September 30, 2009.

On January 22, 2010, the Company filed the Final Prospectus with the SEC in connection with the sale of shares of its common stock pursuant to a shelf registration statement on Form N-2. The "Fees and Expenses" table contained in the Final Prospectus disclosed that the Company's ratio of total annual expenses to net assets (or stockholders' equity) was 5.32%. This ratio was calculated based on net assets of \$446,728,071 (i.e., the \$410,556,071 of net assets of the Company at September 30, 2009, minus \$38,000,000 of debt issued by the Company subsequent to September 30, 2009, plus \$74,172,000 of net proceeds from the sale of shares of the Company's common stock pursuant to the shelf registration statement) and estimated total annual expenses for the year ending September 30, 2010 of \$23,699,936.

On April 12, 2010, the Company filed the Registration Statement with the SEC and disclosed that its ratio of total annual expenses to net assets (or stockholders' equity) was 5.84%. This ratio was calculated based on net assets of \$410,257,351 (i.e., the net assets of the Company at December 31, 2009) and estimated total annual expenses for the year ending September 30, 2010 of \$23,883,637. In connection with reviewing the computation of the ratio of total annual expenses to net assets included in the Registration Statement, we recognize that we should have adjusted the \$410,257,351 of net asset of the Company at December 31, 2009 to take into account the \$74,172,000 of net proceeds received by the Company from the sale of shares of its common stock in connection with the January 2010 shelf offering discussed above. We will appropriately factor in such adjustment in connection with computing the ratio of total annual expenses to net assets to be included in the pre-effective amendment that the Company will file to the Registration Statement.

On May 5, 2010, the Company filed the Form 10-Q with the SEC and disclosed that its ratio of total expenses to average stockholders' equity (or average net assets) was 5.91% at March 31, 2010. This ratio was calculated based on an average stockholders' equity of \$456,501,106 for the six-month period ended March 31, 2010 and estimated total annual expenses of \$26,979,215 for the year ending September 30, 2010. As disclosed in the Form 10-Q, average stockholders' equity is calculated based upon the daily weighted average stockholders' equity for the six-month period ended March 31, 2010. In this regard, it is important to note that the stockholder's equity of the Company was \$484,397,005 at March 31, 2010 and the ratio of total expenses to stockholders' equity (as opposed to **average** stockholders' equity) was 5.57% at March 31, 2010.

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If you have any questions or additional comments concerning the foregoing, please contact the undersigned at (202) 383-0176, or Harry S. Pangas at (202) 383-0805.

Sincerely,

/s/ Steven B. Boehm

Steven B. Boehm