

June 4, 2010

VIA E-MAIL & EDGAR

Dominic Minore, Esq.
Senior Counsel
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

Dear Mr. Minore:

On behalf of Fifth Street Finance Corp. (the "Company"), set forth below are the Company's responses to the verbal comments provided by the staff of the Division of Investment Management (the "Staff") of the Securities and Exchange Commission (the "SEC") to the Company on June 3, 2010. The Staff's comments are set forth below in italics and are followed by the Company's responses. References to the Company's prospectus (the "Prospectus") and form of preliminary prospectus supplement (the "Prospectus Supplement") are to the prospectus and form of preliminary prospectus supplement included in pre-effective amendment No. 1 to the Company's registration statement on Form N-2 that has been filed with the SEC on the date hereof.

Prospectus and Form of Prospectus Supplement

- 1. We reference the disclosure stating that "We are managed by Fifth Street Management LLC, whose six principals collectively have over 50 years, and individually have between four years and 14 years, of experience lending to and investing in small and mid-sized companies." Please indicate the number of years of experience that the principals have managing a business development company.*

The Company has updated the disclosure accordingly. See the cover page and pages 1, 2, 4, 55, 56 and 57 of the Prospectus and the cover page and page S-1 of the Prospectus Supplement.

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2. *We reference comment no. 4 of our verbal comments from June 1, 2010. Please add to the plain English explanation of "PIK" a cross-reference to the risk factor discussing PIK in both the Prospectus and Prospectus Supplement.*

The Company has updated the disclosure accordingly. See page 1 of the Prospectus and page S-1 of the Prospectus Supplement.

3. *We reference comment no. 5 of our verbal comments from June 1, 2010. Please add disclosure stating that as a result of the exemptive relief, the Company could have more debt outstanding than assets to cover such debt.*

The Company has updated the disclosure accordingly. See page 2 of the Prospectus and page S-2 of the Prospectus Supplement.

Prospectus

4. *Please delete the words "we believe" from the second sentence of the first paragraph under the heading "Risk Factors" on page 14 of the Prospectus.*

The Company has updated the disclosure accordingly. See page 14 of the Prospectus.

* * *

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

Enclosure

cc: Mr. Leonard M. Tannenbaum/ Chief Executive Officer
Harry S. Pangas, Esq.
Anne W. Gray, Esq.