

Fifth Street Finance Corp.

Up to \$100,000,000 Common Stock

Supplement No. 1, dated September 22, 2014

to

Prospectus Supplement, dated August 22, 2014

This supplement contains information which amends, supplements or modifies certain information contained in the Prospectus of Fifth Street Finance Corp. (the "Company"), dated February 11, 2014, as supplemented by the Prospectus Supplement, dated August 22, 2014. Capitalized terms used but not defined herein shall have the same meaning given them in the Prospectus Supplement or Prospectus, as applicable.

Changes in Management

The Company announced that its Board of Directors made several management changes on September 9, 2014. Specifically, Bernard D. Berman was promoted to Chairman of the Board of Directors, effective September 10, 2014, with Leonard M. Tannenbaum stepping down as Chairman of the Board of Directors, effective September 9, 2014. Mr. Tannenbaum will continue in his role as Chief Executive Officer of the Company.

Following Mr. Berman's promotion, he stepped down as Secretary of the Company, effective September 9, 2014, and will step down as President, effective September 28, 2014. David H. Harrison, the Company's Chief Compliance Officer will succeed Mr. Berman as Secretary of the Company, effective September 10, 2014.

In addition, the Board announced the appointment of Todd G. Owens as President of the Company, effective September 29, 2014. Prior to his appointment, Mr. Owens spent 24 years at Goldman, Sachs & Co., where he became a Managing Director in 2001 and a partner in 2008. While at Goldman, Sachs & Co., he also served as Head of the West Coast Financial Institutions Group (FIG) for 15 years, Head of the Specialty Finance Group for nearly 10 years and was a senior member of the Bank Group. Mr. Owens brings with him experience in a broad range of industries including commercial finance, asset management, alternative asset management, commercial banking and business development companies. Mr. Owens received his B.A. in History and Political Economy from Williams College.
