FIFTH STREET FINANCE CORP.

Supplement dated March 1, 2012 to Prospectus dated February 10, 2012

This supplement contains information which amends, supplements or modifies certain information contained in the Prospectus of Fifth Street Finance Corp. ("Fifth Street") dated February 10, 2012, as previously supplemented.

You should carefully consider the "Risk Factors" beginning on page 14 of the Prospectus before you decide to invest.

Management's Discussion and Analysis of Financial Condition and Results of Operations

This supplement expands the section of the Prospectus entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations —Financial Condition, Liquidity and Capital Resources—Borrowings" to include the following disclosure immediately after the disclosure in such section regarding Fifth Street's \$230 million secured syndicated revolving credit facility with certain lenders party thereto from time to time and ING Capital LLC, as administrative agent (the "ING facility"):

On February 29, 2012, Fifth Street amended the terms of the ING facility to, among other things, (i) extend the period during which Fifth Street may make and repay borrowings under the ING facility from February 22, 2013 to February 29, 2015, (ii) extend the maturity date from February 22, 2014 to February 29, 2016 and (iii) increase the accordion feature to allow for potential future expansion from up to a total of \$350 million to up to a total of \$450 million.