UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

POST-EFFECTIVE AMENDMENT NO. 2 TO FORM S-3

REGISTRATION STATEMENT

UNDER

THE SECURITIES ACT OF 1933

FIRST INDUSTRIAL REALTY TRUST, INC.

(Exact name of registrant as specified in its charter)

Maryland

(State or other jurisdiction of incorporation or organization)

36-3935116 (I.R.S. Employer Identification Number)

311 S. Wacker Drive, Suite 3900

Chicago, Illinois 60606

(312) 344-4300

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Copies to:

Bruce W. Duncan President and Chief Executive Officer First Industrial Realty Trust, Inc. 311 S. Wacker Drive, Suite 3900 Chicago, Illinois 60606 (312) 344-4300 (Name, address, including zip code, and telephone number, including area code, of agent for service) Howard A. Nagelberg William E. Turner II James R. Whitney Barack Ferrazzano Kirschbaum & Nagelberg LLP 200 W. Madison St., Suite 3900 Chicago, Illinois 60606 (312) 984-3100

Approximate date of commencement of proposed sale to the public: From time to time after the effective date of this Registration Statement.

If the only securities being registered on this form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer

| Non-accelerated filer | \Box (Do not check if a smaller reporting | company) |
|-----------------------|---|----------|
|-----------------------|---|----------|

This Post-Effective Amendment No. 2 to Registration Statement on Form S-3 (File No. 333-152907) shall hereafter become effective in accordance with the provisions of Section 8(c) of the Securities Act of 1933, as amended.

Smaller reporting company

Accelerated filer

DEREGISTRATION OF SECURITIES

First Industrial Realty Trust, Inc. (the "Company") is filing this Post-Effective Amendment No. 2 to Registration Statement on Form S-3, Registration No. 333-152907, initially filed with the SEC on August 8, 2008 (the "Registration Statement"), to deregister all of the shares of the Company's common stock, par value \$0.01 per share, that remain unsold under its Dividend Reinvestment and Direct Stock Purchase Plan as of the filing date of this Post-Effective Amendment No. 2. The Company hereby terminates the offering of shares of its common stock pursuant to the Registration Statement.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Post-Effective Amendment No. 2 to the Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of Chicago, state of Illinois, on May 9, 2012.

FIRST INDUSTRIAL REALTY TRUST, INC.

By: /s/ Scott A. Musil

Scott A. Musil Chief Financial Officer

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons on behalf of the registrant in the capacities and on the dates indicated.

| Signature | Title | Date |
|--|---|-------------|
| /s/ Bruce W. Duncan Bruce W. Duncan | President, Chief Executive Officer and Director (Principal Executive Officer) | May 9, 2012 |
| /s/ Scott A. Musil Scott A. Musil | Chief Financial Officer and Chief Accounting Officer (Principal Financial Officer and Principal Accounting Officer) | May 9, 2012 |
| /s/ W. Edwin Tyler W. Edwin Tyler | Director | May 9, 2012 |
| /s/ Matthew S. Dominski Matthew S. Dominski | Director | May 9, 2012 |
| /s/ H. Patrick Hackett, Jr. H. Patrick Hackett, Jr. | Director | May 9, 2012 |
| /s/ Kevin W. Lynch Kevin W. Lynch | Director | May 9, 2012 |
| /s/ John E. Rau John E. Rau | Director | May 9, 2012 |
| /s/ L. Peter Sharpe L. Peter Sharpe | Director | May 9, 2012 |
| /s/ Robert J. Slater Robert J. Slater | Director | May 9, 2012 |