As filed with the Securities and Exchange Commission on March 23, 2011.

UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

Post-effective Amendment No. 1 to

FORM S-3

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

DYNEX CAPITAL, INC.

(Exact name of registrant as specified in its charter)

Virginia (State or other jurisdiction of incorporation or organization) 52-1549373 (I.R.S. Employer Identification Number)

4991 Lake Brook Drive, Suite 100 Glen Allen, Virginia 23060 (804) 217-5800 (Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Stephen J. Benedetti Executive Vice President, Chief Operating Officer and Chief Financial Officer Dynex Capital, Inc. 4991 Lake Brook Drive, Suite 100 Glen Allen, Virginia 23060 (804) 217-5800 (Name, address, including zip code, and telephone number, including area code, of agent for service) Copies of Communications to: Susan S. Ancarrow, Esquire Troutman Sanders Building Troutman Sanders LLP 1001 Haxall Point, P.O. Box 1122 Richmond, Virginia 23218 (804) 697-1861

Approximate date of commencement of proposed sale to the public: Not applicable.

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, please 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 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," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer "

Non-accelerated filer " (Do not check if a smaller reporting company)

Accelerated filer b Smaller reporting company

This Post-effective Amendment No. 1 to Registration Statement on Form S-3 (No. 333-35769) shall hereafter become effective in accordance with the provisions of Section 8(c) of the Securities Act of 1933, as amended.

TERMINATION OF REGISTRATION

This Post-effective Amendment No. 1 to the Registration Statement on Form S-3 (File No. 333-35769) (the "Registration Statement") originally filed with the Securities and Exchange Commission on September 17, 1997, as amended, is being filed by Dynex Capital, Inc. (the "Company") to deregister its Dividend Reinvestment and Stock Purchase Plan (the "Plan") and all of the shares of the Company's common stock that remain unissued under the Plan as of the filing date of this Post-effective Amendment No. 1. No further shares will be offered under the Plan.

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. 1 to the Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the County of Henrico, Commonwealth of Virginia, on this 23rd day of March, 2011.

DYNEX CAPITAL, INC.

By: /s/ Stephen J. Benedetti

Stephen J. Benedetti Executive Vice President, Chief Operating Officer and Chief Financial Officer

Note: No other person is required to sign this Post-effective Amendment No. 1 to Registration Statement in reliance upon Rule 478 under the Securities Act of 1933.