

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

**Post-Effective Amendment No. 15
to**

Form S-11

**FOR REGISTRATION UNDER
THE SECURITIES ACT OF 1933
OF SECURITIES OF CERTAIN REAL ESTATE COMPANIES**

HEALTHCARE TRUST OF AMERICA, INC.

(Exact name of registrant as specified in its governing instruments)

**The Promenade, Suite 440
16427 North Scottsdale Road
Scottsdale, AZ 85254
(480) 998-3478**

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

Scott D. Peters

Chief Executive Officer, President and Chairman

**The Promenade, Suite 440
16427 North Scottsdale Road
Scottsdale, AZ 85254
(480) 998-3478**

(Name, address, including zip code, and telephone number,
including area code, of agent for service)

Copy to:

**Lesley H. Solomon
Alston & Bird LLP
1201 West Peachtree Street
Atlanta, Georgia 30309
(404) 881-7000**

Approximate date of commencement of proposed sale to public: As soon as practicable after the effectiveness of the registration statement.

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, 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 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 number of the earlier effective registration statement for the same offering.

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

If delivery of the prospectus is expected to be made pursuant to Rule 434, please 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

Accelerated filer

Non-accelerated filer

Smaller reporting company

(Do not check if a smaller reporting company)

Deregistration of Shares of Common Stock

Healthcare Trust of America, Inc. (the "Registrant") filed a Form S-11 Registration Statement (Commission File No. 333-133652) (the "Registration Statement"), which was declared effective by the Securities and Exchange Commission on September 20, 2006, pursuant to which the Registrant registered up to \$2,200,000,000 in shares of the Registrant's common stock, \$0.01 par value, for sale in its initial public offering (the "Initial Offering"). Of the \$2,200,000,000 in shares registered, up to \$2,000,000,000 in shares of the Registrant's common stock were to be issued in a primary offering (200,000,000 shares at \$10.00 per share), and up to \$200,000,000 in shares of the Registrant's common stock were to be issued pursuant to the Registrant's distribution reinvestment plan (21,052,632 shares at \$9.50 per share).

The Registrant is filing this Post-Effective Amendment No. 15 to the Registration Statement in order to withdraw from registration all of the shares of the Registrant's common stock covered by the Registration Statement which were not sold in the Initial Offering.

The Registrant sold a total of 154,574,638 shares of common stock in the Initial Offering, 7,037,284 of which were issued pursuant to the Registrant's distribution reinvestment plan. Accordingly, the Registrant hereby amends the Registration Statement to withdraw from registration a total of 66,477,994 shares of the Registrant's common stock.

SIGNATURE PAGE

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-11 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Scottsdale, State of Arizona on the 22nd day of June, 2010.

HEALTHCARE TRUST OF AMERICA, INC.

By: /s/ Scott D. Peters
Scott D. Peters
Chief Executive Officer and President

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

Signature	Title	Date
<u>/s/ Scott D. Peters</u> Scott D. Peters	Chief Executive Officer, President and Chairman of the Board (Principal Executive Officer)	June 22, 2010
<u>/s/ Kellie S. Pruitt</u> Kellie S. Pruitt	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	June 22, 2010
<u>*</u> W. Bradley Blair, II	Director	June 22, 2010
<u>*</u> Maurice J. DeWald	Director	June 22, 2010
<u>*</u> Warren D. Fix	Director	June 22, 2010
<u>*</u> Larry L. Mathis	Director	June 22, 2010
<u>*</u> Gary T. Wescombe	Director	June 22, 2010
<u>* /s/ Scott D. Peters</u> Scott D. Peters, as attorney-in-fact		