

---

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

---

**FORM 8-K**

**CURRENT REPORT  
Pursuant To Section 13 Or 15(d) of The Securities Exchange Act of 1934**

Date of report (Date of earliest event reported): September 14, 2007

**GSC Investment Corp.**

(Exact name of registrant  
as specified in charter)

**Maryland**  
(State or other jurisdiction of incorporation)

**001-33376**  
(Commission File Number)

**20-8700615**  
(IRS Employer Identification No.)

**12 East 49th Street, New York, NY 10017**  
(Address of principal executive offices)

Registrant's telephone number, including area code: (212) 884-6200

**N/A**  
(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
  - Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
  - Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
  - Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
-

**Item 5.02 Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers.**

On September 14, 2007, the board of directors of GSC Investment Corp. approved the selection of David Rice as Chief Compliance Officer. Mr. Rice replaces Michael J. Monticciolo, who resigned on September 14, 2007.

---

**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

GSC Investment Corp.

Date: September 20, 2007

By: /s/ David L. Goret  
Name: David L. Goret  
Title: Vice President and Secretary

---