

SECURITIES EXCHANGE COMMISSION
Washington, DC 20549

SCHEDULE 13G

Under the Securities Exchange Act of 1934
(Amendment No.)

WESCO INTERNATIONAL INCORPORATED
(Name of Issuer)

Common Stock
(Title of Class of Securities)

95082P105
(CUSIP Number)

December 31, 2009
Date of Event Which Requires Filing of this Statement

Check the appropriate box to designate the rule
pursuant to which this Schedule is filed

Rule 13d-1(b)
 Rule 13d-1(c)
 Rule 13d-1(d)

1) Name of Reporting Person: Pioneer Global Asset Management S.p.A. (PGAM)

2) Check the Appropriate Box (a)
of A Member of Group
(See Instructions) (b)

3) SEC Use Only

4) Citizenship of Place of Organization Italy

Number of
Shares
Beneficially Owned
by Each Reporting
Person With

(5)Sole Voting
Power 0

(6)Shared Voting
Power 2,704,458
[See Item 4 below.]

(7)Sole Disposi-
tive Power 0

(8)Shared Disposi-
tive Power 2,704,458
[See Item 4 below.]

9) Aggregate Amount Beneficially Owned by Each Reporting Person 2,704,458
[See Item 4 below.]

10) Check if the aggregate Amount in Row (9) Exclude Certain Shares (See Instructions)

11) Percent of Class Represented By Amount in Row 9. 6.0%

12) Type of Reporting Person (See Instructions) FI

1) Name of Reporting Person: Pioneer Investment Management, Inc. (PIM)

- 2) Check the Appropriate Box (a)
of A Member of Group
(See Instructions) (b)
- 3) SEC Use Only
- 4) Citizenship of Place of Organization Delaware
- Number of Shares Beneficially Owned by Each Reporting Person With
- (5)Sole Voting Power 0
- (6)Shared Voting Power 2,576,491
[See Item 4 below.]
- (7)Sole Dispositive Power 0
- (8)Shared Dispositive Power 2,576,491
[See Item 4 below.]
- 9) Aggregate Amount Beneficially Owned by Each Reporting Person 2,576,491
[See Item 4 below.]
- 10) Check if the aggregate Amount in Row (9) Exclude Certain Shares (See Instructions)
- 11) Percent of Class Represented By Amount in Row 9. 5.7%
- 12) Type of Reporting Person (See Instructions) IA

Item 1(a) Name of Issuer.

WESCO INTERNATIONAL INCORPORATED

Item 1(b) Address of Issuer's Principal Executive Offices:

Commerce Court
4 Station Square
Suite 700
Pittsburgh, PA 15219
United States

Item 2(a) Name of Person Filing:

PGAM and PIM

Item 2(b) Address of Principal Business Office:

The principal business office for PGAM is:
Galleria San Carlo 6
Milan, Italy

The principal business office for PIM is:
60 State Street
Boston, MA 02109

Item 2(c) Citizenship:

PGAM is organized under the laws of Italy.

PIM is a corporation organized under the laws of the State of Delaware.

Item 2(d) Title of Class of Securities:

Common Stock

Item 2(e) Cusip Number:

95082P105

Item 3 The person filing this statement pursuant to Rule 13d-1(b) or 13d-2(b) is:

PGAM is a parent holding company or control person in accordance with Section 240.13d-1(b)(1)(ii)(J).

PIM is an investment adviser in accordance with Section 240.13d-1(b)(1)(ii)(E).

Item 4. Ownership.

(a) Amount Beneficially Owned:**

PGAM: 2,704,458
PIM: 2,576,491

(b) Percent of Class:

PGAM: 6.0%
PIM: 5.7%

(c) Number of shares as to which such person has

(i) sole power to vote or to direct the vote: 0

(ii) shared power to vote or to direct vote:**

PGAM: 2,704,458
PIM: 2,576,491

(iii) sole power to dispose or to direct disposition of: 0

(iv) shared power to dispose or to direct disposition:**

PGAM: 2,704,458
PIM: 2,576,491

**Shares reported on this Schedule 13G (the Shares) are owned by (i) collective investment vehicles (Funds) advised by PIM and (ii) Funds advised by other advisors that are direct or indirect wholly-owned subsidiaries of PGAM (Additional PGAM Subsidiaries). In their roles as investment manager or adviser to the Funds, PIM and the Additional PGAM Subsidiaries possess investment and/or voting control over the Shares.

PIM is a direct subsidiary of PGAM. PGAM is a limited liability company and the holding company incorporating all of the Pioneer Investments asset management business (including PIM, and the Additional PGAM Subsidiaries) and may therefore, be deemed to beneficially own the Shares.

PGAM, PIM, and the Additional PGAM Subsidiaries disclaim beneficial ownership of the Shares except to the extent of their respective pecuniary interests therein, if any. The filing of this Schedule 13G shall not be construed as an admission that the Reporting Persons are the beneficial owners of the Shares for any other purposes than Section 13(d) of the Securities Exchange Act of 1934.

In accordance with Securities and Exchange Commission Release No.34-39538 (January 12, 1998) (the"Release"), this filing reflects the securities that may be deemed to be beneficially owned by the Reporting Persons, each of which is a directly or indirectly owned subsidiary of Unicredit S.p.A. ("Unicredit"). This filing does not reflect securities, if any, beneficially owned by Unicredit or any other subsidiaries of Unicredit whose ownership is disaggregated from that of the Reporting Persons in accordance with the Release.

Item 5. Ownership of Five Percent or Less of a Class.

If this statement is being filed to report the fact that as of the date Hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check here:

Item 6. Ownership of More than Five Percent on Behalf of Another Person.

Various persons have the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, the Common Stock of WESCO INTERNATIONAL INCORPORATED. The interest of one person, PIM, in the common stock of WESCO INTERNATIONAL INCORPORATED, amounted to 2,576,491 shares or 5.7% of the total outstanding Common Stock at December 31, 2009.

Item 7. Identification and Classification of the Subsidiary Which Acquired

the Security Being Reported On By the Parent Holding Company.

See Item 4.

Item 8. Identification and Classification of Members of the Group.

Inapplicable.

Item 9. Notice of Dissolution of the Group.

Inapplicable.

Item 10. Certification.

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were acquired and are held in the ordinary course of business and were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

By signing below PGAM certifies that to the best of its knowledge and belief, the foreign regulatory scheme applicable to it as a sub-holding company for the asset management division in the UniCredit Banking Group, the latter being regulated by the Bank of Italy and the Commissione Nazionale per le Società e la Borsa (CONSOB), is substantially comparable to the regulatory scheme applicable to the functionally equivalent U.S. institution(s). PGAM also undertakes to furnish to the Commission staff, upon request, information that would otherwise be disclosed in a Schedule 13D.

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Date: February 16, 2010

Pioneer Global Asset Management S.p.A

By: /s/ Roger Yates
Name: Roger Yates
Title: CEO; Head of Asset Management Division

Pioneer Investment Management, Inc.

By: /s/ Teri W. Anderholm
Name: Teri W. Anderholm
Title: Chief Compliance Officer

EXHIBIT

JOINT FILING AGREEMENT

In accordance with Rule 13d-1(k)(1) promulgated under the Securities Exchange Act of 1934, the undersigned agree to the joint filing of a Statement on Schedule 13G (including any and all amendments thereto) with respect to the Common Stock of WESCO INTERNATIONAL INCORPORATED and further agree to the filing of this agreement as an Exhibit thereto. Each party to this Agreement expressly authorizes each other party to this Agreement to file on its behalf any and all amendments to such Statement on Schedule 13G.

Date: February 16, 2010

Pioneer Global Asset Management S.p.A

By: /s/ Roger Yates
Name: Roger Yates
Title: CEO; Head of Asset Management Division

Pioneer Investment Management, Inc.

By: /s/ Teri W. Anderholm
Name: Teri W. Anderholm
Title: Chief Compliance Officer