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

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**FORM 11-K**

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(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2009

OR

TRANSITION REPORT PURSUANT TO SECTION 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission file number 1-475

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A. Full title of the plan and the address of the plan, if different from that of the issuer named below:

**A. O. Smith Profit Sharing Retirement Plan**

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B. Name of issuer of the securities held pursuant to the plan and the address of its principal executive office:

A. O. Smith Corporation  
11270 West Park Place  
Milwaukee, WI 53224

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**REQUIRED INFORMATION**

1. Not Applicable.
2. Not Applicable.
3. Not Applicable.
4. The A. O. Smith Profit Sharing Retirement Plan (the “Plan”) is subject to the requirements of the Employee Retirement Income Security Act of 1974 (“ERISA”). Attached hereto is a copy of the most recent financial statements and schedules of the Plan prepared in accordance with the financial reporting requirements of ERISA.

Signature

Exhibits

23.1 Consent of Independent Auditors

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**A. O. SMITH  
PROFIT SHARING RETIREMENT PLAN  
Milwaukee, Wisconsin**

**AUDITED FINANCIAL STATEMENTS**

**Years Ended December 31, 2009 and 2008**

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**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

Benefits Committee  
A.O. Smith Profit Sharing Retirement Plan  
Milwaukee, Wisconsin

We have audited the accompanying statements of net assets available for benefits of the A.O. Smith Profit Sharing Retirement Plan as of December 31, 2009 and 2008, and the related statements of changes in net assets available for benefits for the years then ended. These financial statements are the responsibility of the Plan's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements, referred to above, present fairly, in all material respects, the net assets available for benefits of the Plan as of December 31, 2009 and 2008, and the changes in its net assets available for benefits for the years then ended in conformity with accounting principles generally accepted in the United States of America.

Our audit was conducted for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplemental Schedule of Assets Held for Investment – December 31, 2009, is presented for the purpose of additional analysis and is not a required part of the basic financial statements but is supplementary information required by the Department of Labor's rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. This supplemental schedule is the responsibility of the Plan's management. The supplemental schedule has been subjected to the auditing procedures applied in the audits of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

/s/ REILLY, PENNER & BENTON LLP

May 7, 2010  
Milwaukee, Wisconsin

**A.O. SMITH PROFIT SHARING RETIREMENT PLAN**  
**Milwaukee, Wisconsin**

**Statements of Net Assets Available for Benefits**  
**December 31, 2009 and 2008**

	<u>2009</u>	<u>2008</u>
Assets:		
Investments in Master Trust:		
Investment options at fair value	\$222,148,031	\$ 192,127,471
Participant loans receivable at estimated fair value	2,389,494	2,567,697
Total investments	<u>224,537,525</u>	<u>194,695,168</u>
Receivables:		
Company contributions	4,467,824	3,126,282
Due from brokers for securities transactions (Net)	273,845	19,565
Accrued Interest	17,374	25,687
Total receivables	<u>4,759,043</u>	<u>3,171,534</u>
Net assets reflecting all investments at fair value	229,296,568	197,866,702
Adjustment from fair value to contract value for fully benefit-responsive investment contracts	<u>(204,720)</u>	<u>5,774,160</u>
Net assets available for benefits	<u>\$229,091,848</u>	<u>\$ 203,640,862</u>

The accompanying notes to the financial statements  
are an integral part of this statement.

**A.O. SMITH PROFIT SHARING RETIREMENT PLAN**  
**Milwaukee, Wisconsin**

**Statements of Changes in Net Assets Available for Benefits**  
**Years Ended December 31, 2009 and 2008**

	<u>2009</u>	<u>2008</u>
<b>Increases:</b>		
Net income (loss) from the Master Trust:		
Investment options	\$ 28,977,797	\$ (49,869,861)
Interest income from participant loans	138,681	166,475
Net income (loss)	<u>29,116,478</u>	<u>(49,703,386)</u>
<b>Contributions:</b>		
Company	4,467,963	3,126,282
Participants	7,460,564	7,710,292
Rollovers	156,391	114,122
Total contributions	<u>12,084,918</u>	<u>10,950,696</u>
Total increases (decreases)	41,201,396	(38,752,690)
<b>Decreases:</b>		
Benefit and withdrawal payments	<u>15,753,569</u>	<u>22,982,272</u>
Change in net assets before transfers	25,447,827	(61,734,962)
Transfers from other plans	3,159	—
Transfers to other plans	<u>—</u>	<u>(88,747)</u>
Change in net assets available for benefits	25,450,986	(61,823,709)
<b>Net assets available for benefits:</b>		
Beginning of year	<u>203,640,862</u>	<u>265,464,571</u>
End of year	<u>\$229,091,848</u>	<u>\$203,640,862</u>

The accompanying notes to the financial statements  
are an integral part of this statement.

**A.O. SMITH PROFIT SHARING RETIREMENT PLAN**  
**Milwaukee, Wisconsin**

**Notes to Financial Statements**  
**December 31, 2009 and 2008**

**1. Basis of Presentation and Significant Accounting Policies**

***General***

The A.O. Smith Profit Sharing Retirement Plan (Plan) was established in 1956 to cover salaried or commissioned employees of the A. O. Smith Corporation, its subsidiaries and affiliates. Employees are eligible to participate in the Plan if they are scheduled to complete 1,000 hours of service in a Plan year. Employees elect to participate by designating a portion of their salary to be contributed to an account maintained on behalf of the participant. Participants direct the investment of their contributions into various investment options offered by the Plan (see Note 2).

***Participant Loans***

Participants may borrow from their fund accounts a minimum of \$1,000 up to a maximum of \$50,000 or 50 percent of their account balance, whichever is less. The loans are secured by the balance in the participant's account and bear interest at rates which are commensurate with local prevailing rates as determined by the Plan's Trustee.

***Investment Valuation***

All of the Plan's assets are held in the A. O. Smith Profit Sharing Retirement Master Trust (Master Trust) (Note 2) which are recorded at fair value. The Financial Statements of the Master trust are presented separately and are incorporated by reference to the Financial Statements of this plan.

***Contributions***

The Plan is a defined contribution plan to which participants may make contributions of not less than 1% or more than 25% of their compensation. The Plan provides for all participant contributions to be made with tax-deferred dollars under Section 401(k) of the Internal Revenue Code. These contributions are excluded from the participant's current wages for federal income tax purposes. The Internal Revenue Code has set a maximum of \$16,500 and \$15,500 for tax-deferred contributions that may be excluded for any individual participant in 2009 and 2008, respectively. The Internal Revenue Code also allows additional catch-up contributions for participants over age fifty. The maximum additional contribution allowed was \$5,500 and \$5,000 in 2009 and 2008, respectively. No federal income tax is paid on the tax-deferred contributions and growth thereon until the participant makes withdrawals from the Plan.

Contributions from participants are recorded when A. O. Smith Corporation (the Company) makes payroll deductions from Plan participants. Contributions from the Company are accrued in the period in which they become obligations of the Company in accordance with terms of the Plan.

For each \$1.00 of 401(k) Tax-Deferred contributions, up to 6% of a participant's salary, the Company guarantees a contribution of \$.35. Additional Company contributions in excess of \$.35 will be based on the Company's return on net worth. The additional Company matching contribution amount is \$.05 times the return on net worth between 5% and 10%, plus \$.10 times the return on net worth in excess of 10% up to a maximum of 18%. Therefore, the guaranteed and additional contributions can combine for a maximum Company contribution of \$1.40 of participant contributions up to 6% of salary.

**A.O. SMITH PROFIT SHARING RETIREMENT PLAN**  
**Milwaukee, Wisconsin**

**Notes to Financial Statements**  
**December 31, 2009 and 2008**  
**(Continued)**

**1. Basis of Presentation and Significant Accounting Policies (Continued)**

***Vesting***

Participants of the Plan are 0% vested in employer contributions with less than two years of participation, 40% vested after two years, 60% after three years, 80% after four years and fully vested after five years of participation. Participants are always fully vested in their own contributions.

***Administrative Expense***

Administrative expenses are the responsibility of the Plan and are part of the net income from the master trust. Administrative expenses totaled \$62,639 and \$74,586 for the years ended December 31, 2009 and 2008, respectively.

***Investment Valuation***

At December 31, 2009 and 2008, all of the Plan's assets are held in the A.O. Smith Profit Sharing Retirement Master Trust (Master Trust). The financial statements of the Master Trust are presented separately and are incorporated by reference to the financial statements of the Plan. The assets in the Master trust are recorded at fair value in accordance with acceptable valuation techniques and inputs to these techniques. These inputs are assumptions market participants use in pricing investments. Acceptable valuation techniques establish a fair value hierarchy that prioritizes the inputs, which are summarized as follows:

Level 1 – Quoted prices in active markets, e.g. NYSE, NASDAQ, etc... for assets identical to the securities to be valued. If a Level 1 input is available, it must be used.

Level 2 – Inputs other than quoted prices that are observable for securities, either directly or indirectly. Examples include matrix pricing utilizing yield curves, prepayment speeds, credit risks, etc...; quoted prices for similar assets in active markets; and inputs derived from observable market data by correlation or other means.

Level 3 – Unobservable inputs, which contain assumptions by the party valuing those assets. For level 3 inputs, there is no market data or correlations with market assumptions. Examples would include limited partnership interests, closely held stock, etc.

In accordance with accounting principles generally accepted in the United States of America, investment contracts held by a defined-contribution plan are required to be reported at fair value. However, contract value is the relevant measurement attribute for that portion of the net assets available for benefits of a defined-contribution plan attributable to fully benefit-responsive investment contracts because contract value is the amount participants would receive if they were to initiate permitted transactions under the terms of the plan. Accordingly, the statements of net assets available for benefits presents the fair value of the investment contracts as well as the adjustment of the fully benefit-responsive investment contracts from fair value to contract value. The statements of changes in net assets available for benefits is prepared on a contract value basis.



**A.O. SMITH PROFIT SHARING RETIREMENT PLAN**  
**Milwaukee, Wisconsin**

**Notes to Financial Statements**  
**December 31, 2009 and 2008**  
**(Continued)**

**1. Basis of Presentation and Significant Accounting Policies (Continued)**

***Participant Account Provisions***

A separate account is maintained for each participant. The separate account balances are adjusted periodically as follows:

- a. Semi-monthly for participant's contributions.
- b. Annually for Company contributions.
- c. Daily for a proportionate share of increases and decreases in the fair value of Plan assets.
- d. The accounts are periodically adjusted for forfeitures, which are reallocated to participants in the same manner as if they were a Company matching contribution for the Plan year. Forfeiture allocations for 2009 and 2008 amounted to \$20,380 and \$22,004, respectively.
- e. Daily for benefit and withdrawal payments which consist of the following:
  - i. Upon retirement, death, disability, or termination of employment resulting from permanent reduction of personnel, an employee may withdraw any amount or the entire account balance for any reason. At age 70 <sup>1</sup>/<sub>2</sub>, an account distribution election must be made.
  - ii. Upon termination of employment for other reasons, the balance in the separate account (reduced for non-vested Company contributions and growth thereon based on years of service) may be paid in a lump sum.
  - iii. An active participant age 59 <sup>1</sup>/<sub>2</sub> or older and employed for five years may withdraw any amount up to the balance in the separate account. The balance in the separate account is paid to the participant in a lump sum.
  - iv. A participant may withdraw all or any portion of the principal balance attributable to after-tax contributions and earnings and rollover contributions and earnings. All or any portion of the balance attributable to Company contributions and earnings may also be withdrawn if the participant has five full years of employment with the Company.
  - v. A participant may withdraw at any time any amount attributable to participant contributions and growth to purchase, prevent eviction from or foreclosure on, a principal residence or to pay certain expenses (namely post-secondary education and unreimbursed medical expenses). Withdrawals may not include earnings on 401(k) contributions posted to a participant's account after 1988.
  - vi. No lump sum cash distribution in excess of \$5,000 will be made without the consent of the participant.
- f. Daily for investment allocation changes made by participants.
- g. Participants should refer to the Plan document for a complete description of the Plan's provisions.

***Payment of Benefits***

Benefits are recorded when paid. As of December 31, 2009, distributions of \$246,345 were requested by participants, but had not yet been paid from the Plan.

**A.O. SMITH PROFIT SHARING RETIREMENT PLAN**  
**Milwaukee, Wisconsin**

**Notes to Financial Statements**  
**December 31, 2009 and 2008**  
**(Continued)**

**2. A. O. Smith Profit Sharing Retirement Master Trust**

The Plan assets are held in the A. O. Smith Profit Sharing Retirement Master Trust at the Marshall and Ilsley Trust Company. The Plan offers sixteen investment vehicles in which participants may invest their account balances. If available, quoted market prices are used to value investments. Shares of mutual funds and common collective trusts are valued at the net asset value of shares held by the plan at year end. Participant loans are valued at amortized cost, which represents fair value. The fair value of the guaranteed investment contract is calculated by discounting the related cash flows based on current yields of similar instruments with comparable durations.

The amount of Master Trust assets, income and change in value which is allocated to the Plan is determined by the ratio of participant account balances in the Plan to the total participant account balances of all participating plans. The defined contribution plans participating in the Master Trust at December 31, 2009, are the A. O. Smith Profit Sharing Retirement Plan, the A. O. Smith Corporation Savings Plan, and the APCOM, Inc. Retirement and Savings Plan. At December 31, 2009 and 2008, the Plan was allocated 82.854% and 82.248%, respectively, of the Master Trust assets.

Significant information related to the investments in the Master Trust as of and for the year ended December 31, 2009, is as follows:

	December 31, 2009 Balance	2009 Income/ (Loss)	2009 Change in Fair Value
<b>a. Mutual Funds:</b>			
American EuroPacific Growth Fund	\$ 19,224,353	\$ 4,944,668	\$ 7,026,746
American Growth Fund of America	6,074,248	1,419,816	2,487,167
Vanguard Institutional Index Trust Fund	11,927,433	2,395,079	2,394,765
Evergreen Core Bond Fund	6,457,356	804,869	1,711,221
American Balanced Fund	12,271,598	2,087,501	1,410,014
<b>Subtotal</b>	<b>55,954,988</b>	<b>11,651,933</b>	<b>15,029,913</b>
<b>b. Common/Collective Trusts:</b>			
A.O. Smith Stock Fund	4,109,688	1,316,715	1,654,709
M&I Target Retirement - 2010	10,356,200	1,910,597	2,435,339
M&I Target Retirement - 2020	11,723,199	2,561,119	5,254,658
M&I Target Retirement - 2030	6,386,206	1,496,321	2,549,027
M&I Target Retirement - 2040	1,262,750	333,180	592,814
M&I Target Retirement - 2050	432,760	106,932	241,847
A.O. Smith Fiduciary Fund	3,593,453	607,683	2,305,248
A.O. Smith Munder Midcap Fund	31,049,427	7,538,237	5,814,083
A.O. Smith M&I Midcap Fund	8,845,119	2,218,621	2,324,844
A.O. Smith First American Equity Income Fund	9,298,529	1,661,082	882,604
A.O. Smith Stable Asset Income Fund	123,790,283	3,317,283	(11,843,808)
<b>Subtotal</b>	<b>210,847,614</b>	<b>23,067,770</b>	<b>12,211,365</b>
<b>c. Participant Loans Receivable</b>	<b>3,930,379</b>	<b>218,354</b>	<b>(236,466)</b>
<b>d. Cash</b>	<b>23,536</b>	<b>—</b>	<b>13,604</b>
<b>Total</b>	<b>\$270,756,517</b>	<b>\$34,938,057</b>	<b>\$ 27,018,416</b>

**A.O. SMITH PROFIT SHARING RETIREMENT PLAN**  
Milwaukee, Wisconsin

**Notes to Financial Statements**  
**December 31, 2009 and 2008**  
(Continued)

**2. A. O. Smith Profit Sharing Retirement Master Trust (Continued)**

The following summarizes the classification of investments by classification and method of valuation in accordance with U.S. GAAP as of December 31, 2009:

Description	12/31/09	Fair Value Measurement at Reporting Date Using		
		Quoted Prices in Active markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Mutual funds	\$ 55,954,988	\$ 55,954,988	\$ —	\$ —
Common collective trusts	210,847,614	—	210,847,614	—
Participant loans receivable	3,930,379	—	—	3,930,379
Cash	23,536	—	23,536	—
<b>Total</b>	<b>\$ 270,756,517</b>	<b>\$ 55,954,988</b>	<b>\$ 210,871,150</b>	<b>\$ 3,930,379</b>

The table below sets forth a summary of changes in the fair value of the Plan's level 3 assets for the year ended December 31, 2009:

	Level 3 Assets
	Year ended December 31, 2009
Balance, beginning of year	\$ 4,166,845
Purchases, sales, issuances and settlements (net)	(236,466)
Balance end of year	<u>\$ 3,930,379</u>

**A.O. SMITH PROFIT SHARING RETIREMENT PLAN**  
**Milwaukee, Wisconsin**

**Notes to Financial Statements**  
**December 31, 2009 and 2008**  
**(Continued)**

**2. A. O. Smith Profit Sharing Retirement Master Trust (Continued)**

Significant information related to the investments in the Master Trust as of and for the year ended December 31, 2008, is as follows:

	<u>December 31,</u> <u>2008 Balance</u>	<u>2008</u> <u>Income/</u> <u>(Loss)</u>	<u>2008 Change in</u> <u>Fair Value</u>
<b>a. Mutual Funds:</b>			
American EuroPacific Growth Fund	\$ 12,197,607	\$ (9,680,284)	\$ (13,821,719)
First American Equity Income Fund	—	(1,671,455)	(15,802,517)
American Growth Fund of America	3,587,081	(2,469,057)	(2,132,594)
Vanguard Institutional Index Trust Fund	9,532,668	(6,136,546)	(9,306,245)
Evergreen Core Bond Fund	4,746,135	(2,190,787)	(3,015,022)
American Balanced Fund	10,861,584	(4,173,461)	(7,103,671)
Fiduciary Common Stock Fund	—	(108,032)	(1,670,308)
Munder Midcap Core Growth Fund	—	(6,763,556)	(53,365,811)
Marshall Mid Cap Value Fund	—	(1,444,469)	(14,609,151)
<b>Subtotal</b>	<u>40,925,075</u>	<u>(34,637,647)</u>	<u>(120,827,038)</u>
<b>b. Common/Collective Trusts:</b>			
A.O. Smith Stock Fund	2,454,979	(369,332)	(261,463)
M&I Target Retirement - 2010	7,920,861	(2,803,516)	(3,726,535)
M&I Target Retirement - 2020	6,468,541	(2,939,404)	(2,063,511)
M&I Target Retirement - 2030	3,837,179	(1,990,920)	(1,450,771)
M&I Target Retirement - 2040	669,936	(393,175)	43,187
M&I Target Retirement - 2050	190,913	(108,728)	(175,254)
A.O. Smith Fiduciary Fund	1,288,205	(264,592)	1,288,205
A.O. Smith Munder Midcap Fund	25,235,344	(13,929,985)	25,235,344
A.O. Smith M&I Midcap Fund	6,520,275	(2,988,479)	6,520,275
A.O. Smith First American Equity Income Fund	8,415,925	(2,558,035)	8,415,925
A.O. Smith Stable Asset Income Fund	<u>135,634,091</u>	<u>5,135,692</u>	<u>17,407,983</u>
<b>Subtotal</b>	<u>198,636,249</u>	<u>(23,210,474)</u>	<u>51,233,385</u>
<b>c. Participant Loans Receivable</b>	4,166,845	276,969	(209,883)
<b>d. Cash</b>	9,932	—	3,760
<b>Total</b>	<u>\$243,738,101</u>	<u>\$(57,571,152)</u>	<u>\$ (69,799,776)</u>

**A.O. SMITH PROFIT SHARING RETIREMENT PLAN**  
**Milwaukee, Wisconsin**

**Notes to Financial Statements**  
**December 31, 2009 and 2008**  
**(Continued)**

**2. A. O. Smith Profit Sharing Retirement Master Trust (Continued)**

The following summarizes the classification of investments by classification and method of valuation in accordance with U.S. GAAP as of December 31, 2008:

<u>Description</u>	<u>12/31/08</u>	<u>Fair Value Measurement at Reporting Date Using</u>		
		<u>Quoted Prices in Active markets for Identical Assets (Level 1)</u>	<u>Significant Other Observable Inputs (Level 2)</u>	<u>Significant Unobservable Inputs (Level 3)</u>
Mutual funds	\$ 40,925,075	\$ 40,925,075	\$ —	\$ —
Common collective trusts	198,636,249	—	198,636,249	—
Participant loans receivable	4,166,845	—	—	4,166,845
Cash	9,932	—	9,932	—
<b>Total</b>	<b>\$ 243,738,101</b>	<b>\$ 40,925,075</b>	<b>\$ 198,646,181</b>	<b>\$ 4,166,845</b>

The table below sets forth a summary of changes in the fair value of the Plan's level 3 assets for the year ended December 31, 2008:

	<u>Level 3 Assets</u>
	<u>Year ended December 31, 2008</u>
Balance, beginning of year	\$ 4,376,728
Purchases, sales, issuances and settlements (net)	(209,883)
Balance end of year	<u>\$ 4,166,845</u>

**A.O. SMITH PROFIT SHARING RETIREMENT PLAN**  
**Milwaukee, Wisconsin**

**Notes to Financial Statements**  
**December 31, 2009 and 2008**  
**(Continued)**

**3. Investments**

Investments held by the Plan, that represents 5% or more of the Plan's net assets are as follows:

	December 31,	
	2009	2008
Vanguard Institutional Index Fund, 101,736.090 shares in 2009	\$ 10,811,017	\$ N/A
A.O. Smith Stable Asset Income Fund, 4,306,795.141 and 4,873,676.147 shares, respectively	88,824,651	112,047,828
American Balanced Fund, 717,036.652 and 730,912.698 shares, respectively	12,555,658	10,079,286
American EuroPacific Growth Fund, 474,704.609 and 405,714,239 shares, respectively	18,977,775	11,339,713
AO Smith Munder Mid Cap Fund, 697,633.038 and 743,475.242 shares, respectively	33,610,757	24,344,431

**4. A.O. Smith Stable Asset Income Fund**

The Master Trust in which the plan's assets are invested owns shares of the A.O. Smith Stable Asset Income Fund (the Fund). The Fund owns shares of two collective investment funds which hold Guaranteed investment contracts. Information pertaining to these two funds for the year ended December 31, 2009, is as follows:

	Average Yield	Crediting Interest Rate	Investments at Contract Value	Investments at Fair Value	Adjustment to Contract Value
M&I Stable Principal Fund	3.78%	3.36%	—	—	—
Wells Fargo Stable Return Fund G	3.40%	3.32%	102,360,152	102,564,872	(204,720)

Information pertaining to the two funds for the year ended December 31, 2008, is as follows:

	Average Yield	Crediting Interest Rate	Investments at Contract Value	Investments at Fair Value	Adjustment to Contract Value
M&I Stable Principal Fund	4.96%	3.28%	54,791,388	52,051,819	2,739,569
Wells Fargo Stable Return Fund G	5.29%	4.10%	57,256,440	54,221,849	3,034,591

**A.O. SMITH PROFIT SHARING RETIREMENT PLAN**  
**Milwaukee, Wisconsin**

**Notes to Financial Statements**  
**December 31, 2009 and 2008**  
**(Continued)**

**5. Income Tax Status**

The Plan obtained its latest determination letter on October 21, 1999, in which the Internal Revenue Service stated the Plan as then designed, was in compliance with the applicable requirements of the Internal Revenue Code. The Plan administrator and the Plan's tax counsel believe that the Plan is currently designed and being operated in compliance with the applicable requirements of the Internal Revenue Code. Therefore, no provision for income taxes has been included in the Plan's financial statements.

**6. Plan Termination**

While the Company has not expressed any intent to terminate the Plan, it is free to do so at any time. In the event of termination, each participant automatically becomes vested to the extent of the balance in his separate account.

**7. Use of Estimates**

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts in the financial statements. Actual results could differ from those estimates.

**8. Risks and Uncertainties**

The Plan invests in various investment securities. Investment securities are exposed to various risks such as interest rate, market, and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect participants' account balances and the amounts reported in the statements of net assets available for benefits.

**9. Reconciliation of Financial Statements to Schedule H Form 5500**

The following is the reconciliation between the financial statements and Form 5500:

	<u>2009</u>	<u>2008</u>
Total net assets per Form 5500, Schedule H	\$229,296,568	\$203,640,862
Adjustment from fair value to contract value for fully benefit-responsive investment contracts	(204,720)	—
Net Assets available for benefits per financial statements	<u>\$229,091,848</u>	<u>\$203,640,862</u>
Increase (decrease) in net assets per Form 5500, Schedule H	\$ 25,655,706	\$ (61,823,709)
Adjustment from fair value to contract value for fully benefit-responsive investment contracts	(204,720)	—
(Decrease) increase in net assets available for benefits per financial statements	<u>\$ 25,450,986</u>	<u>\$ (61,823,709)</u>

**A.O. SMITH PROFIT SHARING RETIREMENT PLAN**  
**Milwaukee, Wisconsin**

**Notes to Financial Statements**  
**December 31, 2009 and 2008**  
**(Continued)**

**10. Subsequent Events**

Subsequent events were evaluated through the date of financial statement issuance.

Effective January 1, 2010, the Plan was renamed the A.O. Smith Retirement Security Plan.

Effective January 1, 2010, the Plan was revised to satisfy the safe harbor requirements of Internal Revenue Code 401(k)(13) as follows:

- a. An automatic enrollment feature was instituted
- b. Plan participants will have the ability to contribute up to 100% of available compensation on a pre-tax basis
- c. The Company will contribute 100% on the first 1% of a participant's compensation and 50% on the next 5%, for a maximum annual matching contribution of 3.5%
- d. All matching contributions shall vest after two years of vesting service
- e. An additional matching contribution to be allocated as of the last day of the plan year for those participants who are employed on such date or who terminated during the year on or after attainment of age 65

Also, effective January 1, 2010, all participants who are not eligible to accrue a benefit under any of the Company's qualified defined benefit pension plans will be eligible for an annual nonelective employer contribution equal to three percent of an eligible participant's total compensation for the Plan year. Those employees who are employed in a FTE position for the Plan year or complete 1,000 hours of service during a Plan year and who are employed on the last day of the Plan year or terminated employment during the Plan year as a result of death, disability, retirement, or termination resulting from job abolishment are eligible. This nonelective contribution will vest after three years of vesting service.

In addition, effective in 2010 as such time as is determined by the Company's Senior Vice President of Human Resources and Public Affairs, the A.O. Smith Corporation Savings Plan shall be merged with and into the A.O. Smith Retirement Security Plan.



**A.O. SMITH PROFIT SHARING RETIREMENT PLAN**  
**Milwaukee, Wisconsin**

**EIN 39-0619790, Plan 018**  
**Schedule H, line 4i - Schedule of Assets Held for Investment**

**December 31, 2009**

<u>(a)</u>	<u>(b)</u> <u>Identity of Issue</u>	<u>(c)</u> <u>Description of</u> <u>Investment</u>	<u>(d)</u> <u>Cost</u>	<u>(e)</u> <u>Current</u> <u>Value</u>
*	Participant Loans	4% - 9.25%	\$—	\$2,389,494

\* -Denotes a party-in-interest

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Pursuant to the requirements of the Securities Exchange Act of 1934, the persons who administer the employee benefit plan have duly caused this annual report to be signed on its behalf by the undersigned hereunto duly authorized.

A. O. Smith Profit Sharing Retirement Plan

/s/ DUANE CARLSON

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**Duane Carlson, Manager U.S. Benefits**

Dated: May 25, 2010

**CONSENT OF REILLY, PENNER & BENTON LLP**

We consent to the incorporation by reference in the Registration Statement (Form S-8 No. 333-05799) pertaining to the A. O. Smith Profit Sharing Retirement Plan (the Plan) of our report dated May 7, 2010 with respect to the financial statements and schedules of the Plan included in this Annual Report (Form 11-K) for the year ended December 31, 2009.

Milwaukee, Wisconsin  
May 24, 2010

/s/ REILLY, PENNER & BENTON LLP