

Topic 718 Disclosures - 1149% Increase in the Use of Binomial Models Since 2003

With the adoption of Topic 718 (formerly FAS 123(R)), which requires the "fair value" of stock options to be deducted from the income statement for fiscal years beginning after June 15, 2005, many companies are revisiting how the fair value is calculated. As of the end of fiscal year 2002, 37 public companies were applying a "binomial" model, the most common form of lattice model. As of June 30, 2010, Radford has identified 462 companies that have publicly disclosed the use of a binomial model for purposes of the valuation of traditional service-based stock option plans, or an increase by 1149% since 2003.

The original FAS 123, as released in 1994, allowed for companies to use either the Black-Scholes formula or a binomial model. In practice however, virtually all public companies chose to use the Black-Scholes formula, since these valuations were only necessary for *pro forma* disclosures and the Black-Scholes formula is relatively easy to apply.

However, when the Financial Accounting Standards Board (FASB) began drafting revisions to FAS 123, many companies began to reconsider the use of the Black-Scholes formula. In fact, the original Exposure Draft, released in February 2004, stated an explicit preference for a lattice model. The final standard, released in November 2004, allowed both the Black-Scholes formula and for binomial models, however, implies a preference for lattice models that "more fully reflect the substantive characteristics of employee share options". In recent years, in part due to its flexibility and enhanced accuracy, as well as the FASB implicit preference, the popularity of a binomial model has been growing.

The Black-Scholes formula was designed to value exchange traded options and assumes that option exercises occur at the end of an option's contractual term. Further, it assumes that expected volatility, dividends, and risk-free interest rates are constant over the option's term. In contrast, a lattice model can be designed to accommodate dynamic assumptions of expected volatility and dividends, and distributions of expected option exercise patterns during the option's contractual term. In general, many companies are seeking the most accurate estimation of "fair value" and want to fully comply with the FASB implicit preferability of binomial models are those that have transitioned to a binomial model.

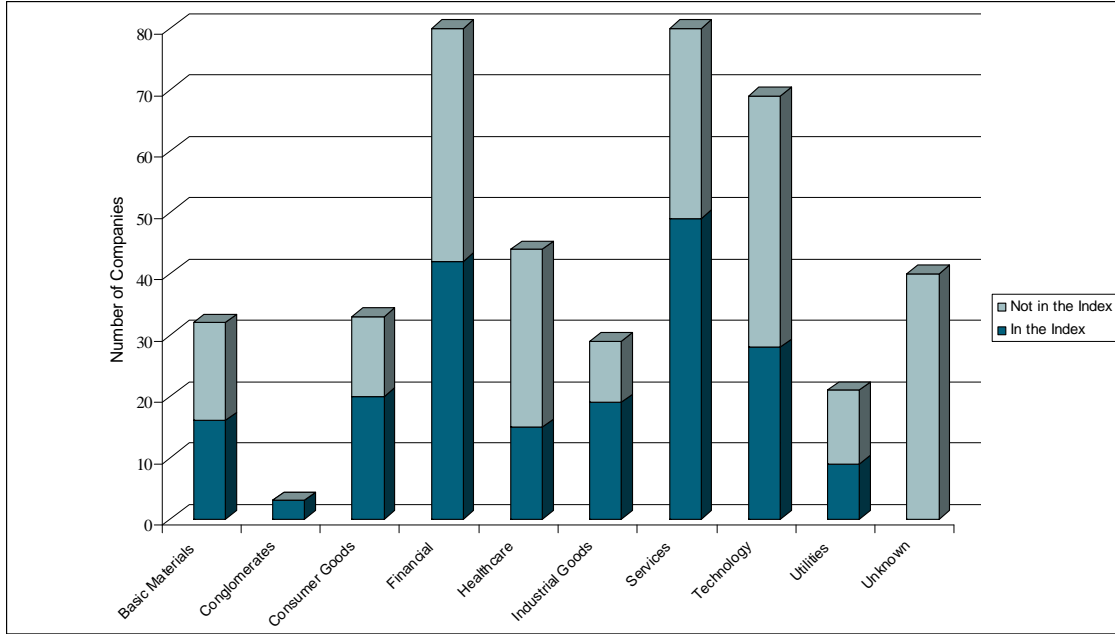
Further, all sizes of companies (as defined by annual revenue) have transitioned to a lattice model, from 168 companies with less than \$100 Million in annual revenue, to 71 with more than \$5 Billion in annual revenue (including 84 companies in the S&P 500). There appears to be no distinction in companies that are adopting binomial models by the size of the company.

Summary of Companies Using The Binomial/Lattice Model for Topic 718 By Revenue and Year of Adoption

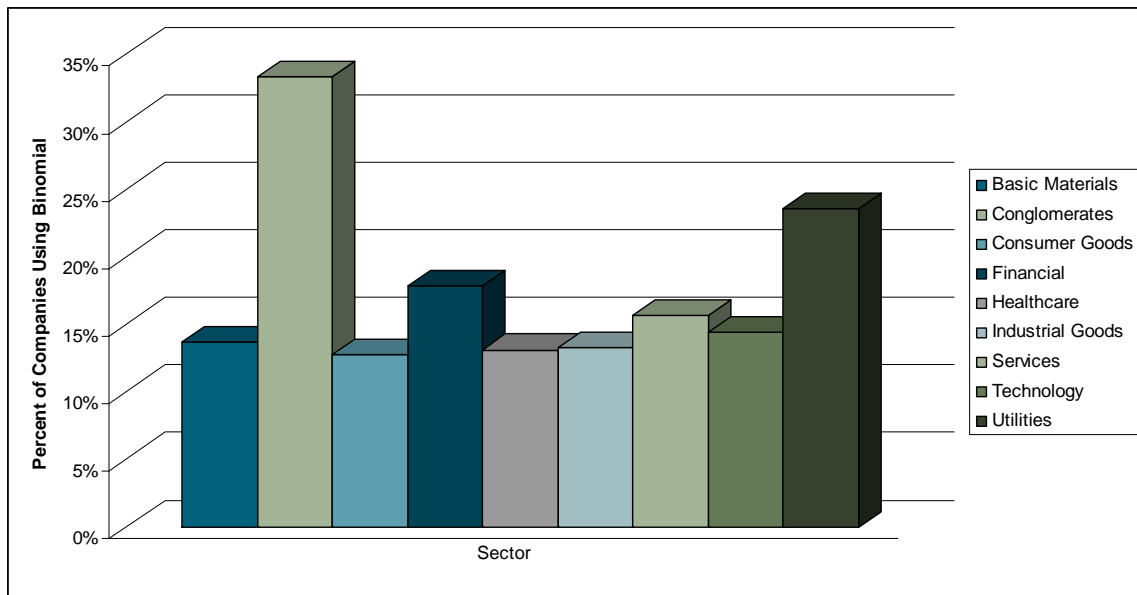
Fiscal Year of Binomial Model Adoption	Revenue Group				Total
	Small < \$100M	Medium \$100M - \$1B	Large \$1B - \$5B	Jumbo >\$5B	
1995	6	7	4	1	18
1996	0	1	1	0	2
1997	0	0	0	0	0
1998	1	1	0	0	2
1999	1	0	1	1	3
2000	0	3	1	1	5
2001	2	0	0	0	2
2002	2	2	1	0	5
2003	3	5	0	5	13
2004	10	10	13	10	43
2005	31	45	32	27	135
2006	58	36	38	23	155
2007	24	5	3	2	34
2008	9	2	0	0	11
2009	16	7	4	1	28
2010	5	0	1	0	6
TOTAL	168	124	99	71	462

Note that the chart above includes some interim periods of SEC reporting. Radford believes that as more companies disclose their technique for valuing stock options over the coming interim and annual reporting periods, there will continue to be an increase in the number of companies utilizing binomial models. A summary of all 462 companies that disclosed the use of the lattice model in their SEC reporting is attached.

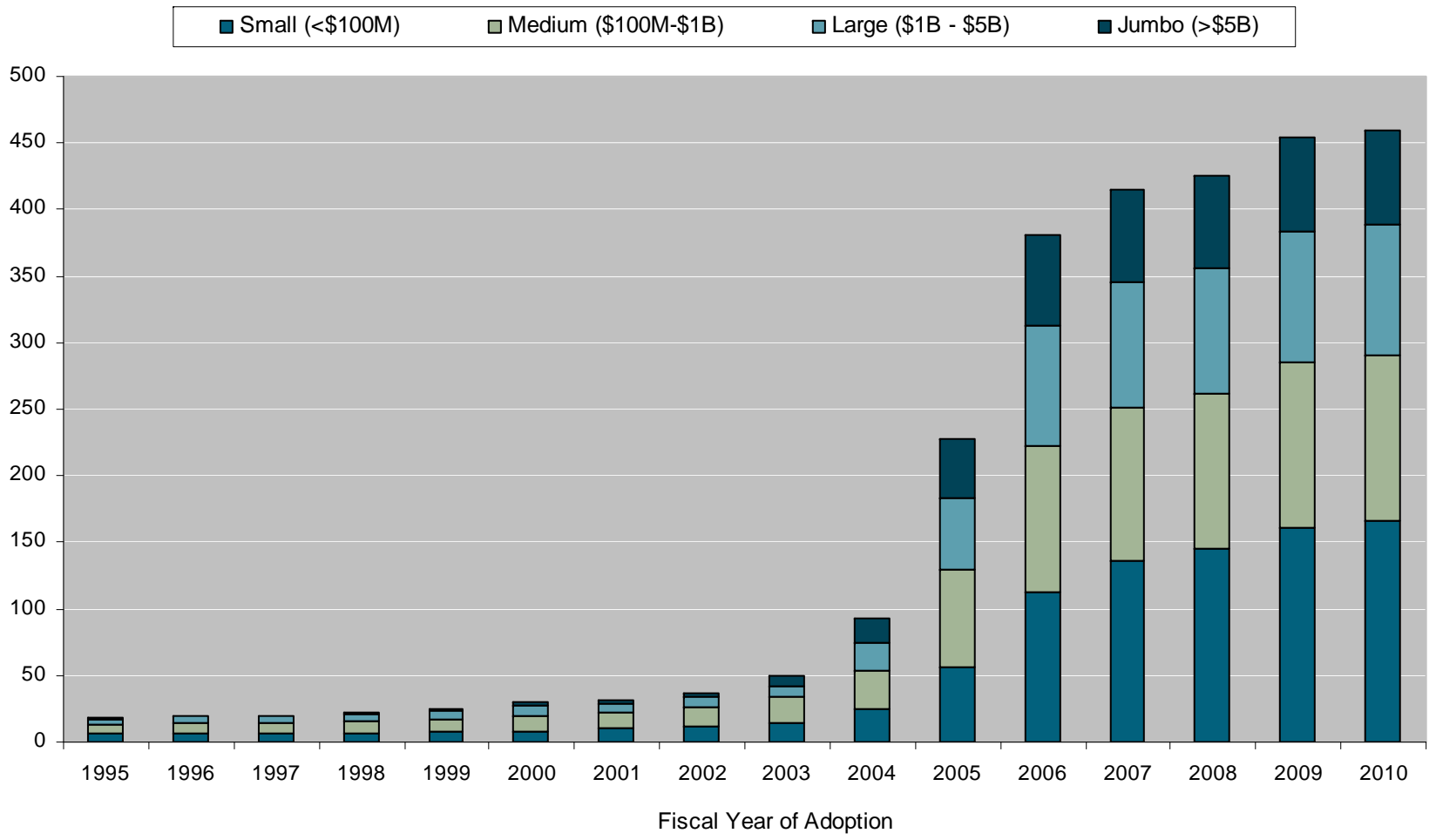
Of the 462 companies, 44% are in one of the following three indices, Russell 2000, S&P 400 and S&P 500. The following chart shows the breakdown by sector.



While there may be no distinction in companies that are adopting binomial models by the size, there appears to be some differences between the sectors. The following chart shows that while 13% of the companies in most sectors are adopting the binomial model, utilities and conglomerates have higher.



The growth in the cumulative number of companies using binomial models can be seen in the following chart, as of June 30, 2010.



Summary of Companies Using a Binomial/Lattice Model for Topic 718 By Year of Adoption of Binomial Model (For Filings Through June 30, 2010)

1995 Fiscal Year

BNL Financial Corp.
Boeing Corp.
Cincinnati Financial Corp.
 Covanta Energy Corp.
 CRT Properties Inc.
 Enterprise Bancorp Inc.
 First Keystone Corp.
 Harsco Corp.
 Hawaiian Electric Co. Inc.
 Mocon Inc.
 MultiColor Corp.
 Pulitzer Inc.
 Repron Electronics Inc.
 Sandy Spring Bancorp Inc.
 Schiff Nutrition International, Inc.
 SRI Surgical Express Inc.
 Trans Lux Corp.
Vornado Realty Trust

1996 Fiscal Year

Applica Inc.
 Ferrellgas Partners LLP

1998 Fiscal Year

Brightstar Information Technology Group
 Harbor Florida Bancshares

1999 Fiscal Year

Bank of Commerce Holdings
 ISPAT Inland Inc.
Washington Mutual, Inc.

2000 Fiscal Year

Cedar Fair LP
Diamond Offshore Drilling
 Idacorp Inc.
MeadwestVaco Corp.
 Sonoco Products

2001 Fiscal Year

Dreams Inc.
 Mexco Energy Corp.

2002 Fiscal Year

First Keystone Financial Inc.
 Harris Preferred Capital
 Newcastle Investment Corp.
 Pacific Capital Bancorp
 UIL Holdings Corp

2003 Fiscal Year

American International Group Inc.
 Anheuser-Busch Companies Inc.
 Brooke Corp
Citigroup, Inc
 Global Preferred Holdings
 IMAX Corp
 Maguire Properties Inc.
 Marlin Business Services
Prudential Financial Inc.
UnitedHealth Group
 Vornado Realty LP
 WestCorp
 Worldspan L P

2004 Fiscal Year

1st Centennial Bancorp
 Acadia Realty Trust
 Alliance Data Systems
 American Home Mortgage Investment Corp.
Becton Dickinson and Co.
 Bucyrus International Corp.
Caterpillar Inc.
Charles Schwab Corp
 Cheesecake Factory Incorporated
 Choicepoint Inc.
 CitiCorp
DeVry, Inc.
 Digene Corp.
 E W Scripps
 Fedders Corp
Fiserv Inc.
 General Growth Properties
Hartford Financial Services Group, Inc.
 Hartford Life Inc.
 Hartford Life Insurance Co.
 Hillenbrand Inc
Illinois Tool Works Inc.
 Integra Lifesciences Holdings
ITT Corporation
Kellogg Co.
 Laclede Gas Co
McCormick & Co. Inc.
 Metro-Goldwyn-Mayer Inc.
 MGIC Investment Corp.
 New York Mortgage Trust Inc.
 Origen Financial Inc.
 Private Bancorp Inc.

2004 Fiscal Year

Rainier Pacific Financial Group, Inc.
Rockwell Collins Inc.
 Scotts Miracle Grow
 SFBC International, Inc.
 Specialty Underwriters Alliance, Inc.
 Sun Communities Inc.
 Telesource International Inc.
The Travelers Companies, Inc.
 United Bankshares
 Viskase Companies Inc.
Western Digital Corp

2005 Fiscal Year

Abington Community Bancorp
 Actuant Corp
 Advanced Cell Technology, Inc.
 Aethlon Medical Inc.
Alcoa Inc.
Allstate Corp
Ameren Corporation
 American Physician Capital Inc.
Amerisourcebergen Corp
 Atlantic Tele Network Inc.
 Atlas America Inc.
Automatic Data Processing Inc.
 Avaya Inc.
 Bancwest Corp
Bank of New York Co., Inc.
 Battle Mountain Gold Exploration Corp.
 Bioanalytical Systems Inc.
 Biosite Inc.
BJ Services Co.

Note: The companies listed in **bold** font are components of the S&P 500.

Summary of Companies Using a Binomial/Lattice Model for Topic 718 By Year of Adoption of Binomial Model (For Filings Through June 30, 2010)

2005 Fiscal Year (cont.)

Brand Intermediate Holdings, Inc.
Brown Shoe Co.
Calavo Growers Inc.
Cardinal Health Inc.
Cardiogenesis Corp.
Catcher Holdings, Inc.
CBeyond Communication Inc.
CBOT Holdings Inc
CBRL Group Inc.
CDW Corp
Central Illinois Light Co.
Central Illinois Public Service Co.
Central Vermont Public Service Corp.
CilCorp Inc.
Coast Distribution System Inc.
Cognos Inc.
Comerica Inc.
Commercial Federal Group
Cooper Companies Inc.
Crescent Real Estate Equities Co.
Crown Media Holdings Inc.
Cytec Industries
Dana Corp
Danka Business Systems
Datascension Inc.
Doral Financial Corp
Dow Chemical Co.
Ecolab Inc.
Energy Exploration Technologies Inc.
EOG Resources Inc.
Equifax Inc.
Equity One Inc.

2005 Fiscal Year (cont.)

Factset Research Systems
Genesis Healthcare Corp
Goldman Sachs Group Inc.
Guitar Center Inc.
Hampton Roads Bancshares
Hawaiian Electric Industries Inc.
Healthextras Inc.
Healthways, Inc.
Hercules Offshore, Inc.
Hiland Partners LP
Hologic Inc.
Idaho Power Co.
Illinois Power Co.
International Securities Exchange
Intersil Corp.
Ivillage Inc.
J C Penney Co. Inc.
Jack in the Box, Inc.
Keynote Systems Inc.
Keyspan Corp.
Knoll Inc.
Laclede Group Inc.
Liberty Global Inc.
Lilly Eli & Co.
Liz Claiborne Inc.
LTX Corp
Marriott International Inc.
Matthews International Corp
McGraw-Hill Companies Inc.
Medimmune Inc.
Metlife Inc.
Middleby Group

2005 Fiscal Year (cont.)

Myers Industries
National Fuel Gas Co
National Medical Health Card Systems
National Retail Properties Inc.
NVIDIA Corp.
Oakley Inc
ON Semiconductor Corp.
Orbit International Corp
Pemco Aviation Group Inc.
Pinnacle Foods Group Inc
PMC Sierra Inc.
Precision Auto Care Inc.
Procter & Gamble Co.
ProxyMed Inc.
QualComm Inc.
RCN Corp
Sabre Holdings Corp.
SafeTek International Inc
Scientigo, Inc.
Searchlight Minerals Corp
SGS International, Inc.
Siricomm Inc.
Sivault Systems, Inc.
Smith International Inc.
Socket Communications Inc.
Spark Network PLC
Staples Inc.
Starwood Hotel & Resorts Worldwide Inc.
SVB Financial Group
Sybron Dental Specialties Inc.
Systems Evolution, Inc
Teledyne Technologies

2005 Fiscal Year (cont.)

Tenet Healthcare Corp.
Tidelands Bancshares Inc.
Toll Brothers Inc.
Transatlantic Holdings Inc.
Trimble Navigation Ltd.
Tyson Foods Inc.
U S Physical Therapy Inc.
Union Electric Co.
United Technologies Corp
Valley National Bancorp
Valmont Industries Inc.
Warner Music Group
WCI Communities Inc
WellPoint Inc.
Westbank Corp
Westfield Financial Inc
Williams Scotsman International Inc.
Wisconsin Energy Corp
WMG Acquisition Corp
Zebra Technologies

Summary of Companies Using a Binomial/Lattice Model for Topic 718 By Year of Adoption of Binomial Model (For Filings Through June 30, 2010)

2006 Fiscal Year

Access Plans USA, Inc.
Acunetx, Inc.
Advanced Micro Devices Inc.
ADVO Inc.
Alcan Inc.
Alliance Fiber Optic Products Inc.
Ameriana Bancorp
Aon Corporation
Applebee's International, Inc
Argon St, Inc.
Autobyte, Inc.
Bank of America Corp.
Berry Plastics Holding Corp
Best Buy Co Inc.
Big Lots Inc.
Bioscrip, Inc.
BNL Financial Corp
Boston Beer Co. Inc.
Bovie Medical Corp
Brand Energy & Infrastructure Services, Inc.
Bristol-Myers Squibb Company
Broadridge Financial Solutions, Inc.
Business Objects S.A.
Cabot Oil & Gas Corp.
CapitalSource, Inc.
Central European Distribution Corp
Cerner Corp.
Chordiant Software Inc.
Cognex Corp.
Colony Resorts Acquisitions
Community Bankers Acquisition Corp.

2006 Fiscal Year (cont.)

CoreLogic
Corning Inc.
Corporate Executive Board Co.
Countrywide Financial Corp
Covance Inc.
CR Bard Inc.
CRC Health Corp
Crystal River Capital, Inc.
Cullen Frost Bankers Inc
Curis Inc.
D&E Communications Inc.
Davey Tree Expert Co.
Deere & Co.
Deltic Timber Corp.
Digital Music Group, Inc.
Dover Saddlery Inc
DSP Group Inc.
Federal Mogul Corp.
First Advantage Corp.
First Ipswich Bancorp /MA
Gabriel Technologies Corporation
Glenborough Realty Trust Inc.
Global Realty Development Corp
Grainger W W Inc.
Graphon Corp.
GTECH Holdings Corp.
Harland John H Co
Harleysville Savings Financial Corp.
HealthMarkets, Inc.
Hiland Holdings GP, LP
HSBC Finance Corp.
HSBC USA Inc.

2006 Fiscal Year (cont.)

ICAD Inc
IDEX Corp.
Imperial Sugar Co
Indymac Bancorp Inc.
Innova Holdings
Intergrys Energy Group, Inc.
International Flavors & Fragrances Inc.
Intuit Inc
ITT Educations Services
Jabil Circuit Inc.
JetBlue Airways Corp.
JohnsonDiversey Inc
Kerr McGee Corp.
Kforce Inc
Kitty Hawk Inc.
Kyphon Inc.
Legend International Holdings Inc
Lifepoint Hospitals, Inc.
Lincoln Bancorp /IN/
LSI Logic Corp.
Makemusic Inc.
Mannatech Inc.
Marshall & Ilsley Corp.
Martin Marietta Materials Inc.
McAfee, Inc.
MCF Corp.
Media General Inc.
Medialink Worldwide Inc.
Monroe Bancorp
Monsanto Co.
Municipal Mortgage & Equity LLC
Nashua Corp.

2006 Fiscal Year (cont.)

National Mercantile Bancorp
Navteq Corp.
NB&T Financial Group Inc
Net 1 UEPS Technologies Inc.
New Century Financial Corp.
Newpage Corp.
Newpage Holding Corp
Nordstrom Inc
Northwest Natural Gas Co.
Novell Inc.
Old Second Bancorp Inc.
OmniComm Systems Inc.
Opinion Research Corp.
Outdoor Channel Holdings Inc
Payless Shoesource Inc
Petsmart Inc
Playboy Enterprises Inc.
Possis Medical Inc.
Precis Inc.
Raytheon Company
Regis Corp.
Rent-A-Center Inc.
Replidyne Inc
Republic Services Inc.
River Valley Bancorp
Rurban Financial Corp
Sealy Corp
Senetek Plc
Serologicals Corp
Shoe Pavilion Inc
Smart Balance
Smurfit Stone Container Corp.

Summary of Companies Using a Binomial/Lattice Model for Topic 718 By Year of Adoption of Binomial Model (For Filings Through June 30, 2010)

2006 Fiscal Year (cont.)

Sonic Foundry Inc.
Standard Drilling, Inc.
Standard Pacific Corp
Stein Mart Inc
Strategic Hotels & Resorts, Inc
Tech Data Corp
Thomas Group Inc.
Toys R US Inc
Trans-India Acquisition Corp
TVI Corp
U S Gold Corp
United Western Bancorp, Inc.

V F Corp.

Viacom, Inc.
Vital Signs Inc
Voyager Learning Co
Vyteris Holdings (Nevada), Inc.
VYYO Inc.
Wabash National Corp

Walt Disney Co.

Wausau Paper Corp.
W-H Energy Services Inc.
Wisconsin Electric Power Co
Wisconsin Public Service Corp.
WPS Resources Corp.

XTO Energy Inc.

2007 Fiscal Year

Activision Inc
Axiom Corp
Alabama Aircraft Industries, Inc
Allied Nevada Gold Corp
American Oil & Gas, Inc

2007 Fiscal Year (cont.)

CarMax, Inc.

CHDT Corp
Cleantech Biofuels, Inc
CoroWare, Inc.
Danka Business Systems PLC
Derma Sciences Inc.
Eastern Insurance Holdings, Inc
EMTA Holdings Inc
Firearms Training Systems Inc.
First Investors Financial Services Group, Inc.
Fortified Holdings Corp
Golden Resources Corp
Innova Robotics & Automation, Inc
Innovative Software Technology, Inc
Insituform Technologies Inc.
Integrated Electrical Services Inc
Ireland, Inc
Kelly Services Inc.
Marshall Edwards Inc
MF Global LTD
Mortgage Assistance Center Corp
Neogenomics Inc.
Orsus Xelent Technologies, Inc.
Shanghai Century Acquisition Corp
Stamford Industrial Group, Inc
StellarOne Corp.
Techprecision Corp
Topspin Medical, Inc
Vista Gold Corp

2008 Fiscal Year

China Medicine Corp
Eldertrust Operating Limited Partnership
Genelink Inc.
Guidance Software, Inc.
JMP Group, Inc.
Kesselring Holding Corp.
Left Behind Games Inc.
Omrix Biopharmaceuticals, Inc.
Universal Biosensors Inc
Virtusa Corp.
WMG Acquisition Corp

2009 Fiscal Year

Addus Homecare Corp
Adobe Systems Inc
Afc Enterprises Inc
Altisource Portfolio Solutions S.A.
American Defense Systems Inc
Amp Holding Inc.
China Advanced Construction Materials Group, Inc
Cycle Country Accessories Corp
Deer Valley Corp
Enernoc Inc
Ferrellgas Finance Corp
Flextronics International Ltd.
Hill-Rom Holdings, Inc.
Host Hotels & Resorts, Inc.
Jamba, Inc.
Jingwei International Ltd
Merrill Lynch & Co., Inc.
Northstar Electronics Inc
Oak Valley Bancorp
Orchard Enterprises, Inc.

2009 Fiscal Year (cont.)

Pericom Semiconductor Corp
Quantum Fuel Systems Technologies Worldwide, Inc.
Realogy Corp
Retractable Technologies Inc
Shrink Nanotechnologies, Inc.
Sourcefire Inc
Sunstone Hotel Investors, Inc.
Urban Outfitters Inc.

2010 Fiscal Year

Altigen Communications Inc
Amerigas Partners Lp
Chattem Inc
First California Financial Group, Inc.
Jacksonville Bancorp Inc
Lime Energy Co.